

## UNLV: Mission and Core Themes

The University of Nevada, Las Vegas, located in the vibrant and dynamic city of Las Vegas and surrounded by the Mojave Desert, embraces the traditional values of higher education adapted for the global community of the twenty-first century. UNLV assists students in meeting the intellectual and ethical challenges of responsible citizenship and a full and productive life through opportunities to acquire the knowledge and common experiences that enhance critical thinking, leadership skills, aesthetic sensitivity, and social integrity.

The university provides traditional and professional academic programs for a diverse student body and encourages innovative and interdisciplinary approaches to teaching, learning, and scholarship. UNLV simultaneously engenders collegial relationships and a sense of community among its members. UNLV embraces the interdependence of quality instruction, scholarly pursuits, and substantive involvements in campus and community life. The university offers artistic, cultural, and technical resources and opportunities to the broadest possible community. It promotes research programs and creative activities by students and faculty that respond to the needs of an urban community in a desert environment. UNLV is committed to developing a synergy between professional and liberal studies, between undergraduate education and graduate programs, and between superior teaching and meaningful research. UNLV increasingly is a dynamic resource for, and partner with, the community that it serves.

In its 50-year history, UNLV has undergone an amazing transformation from a small branch college into a thriving urban research institution of 28,000 students and 3,300 faculty and staff.

Along the way, the urban land-grant university has become a dynamic resource for one of the country's fastest-growing and most enterprising cities. UNLV's 332-acre main campus, located on the southern tip of Nevada in a desert valley surrounded by mountains, is home to more than 220 undergraduate, master's, and doctoral degree programs, all accredited by the

Northwest Commission on Colleges and Universities.

## UNLV Mission Statement

The University of Nevada, Las Vegas, is a research institution committed to rigorous educational programs and the highest standards of a liberal education. We produce accomplished graduates who are well prepared to enter the work force or to continue their education in graduate and professional programs. Our faculty, students, and staff enthusiastically confront the challenges of economic and cultural diversification, urban growth, social justice, and sustainability. Our commitment to our dynamic region and State centrally influences our research and educational programs, which improves our local communities. Our commitment to the national and international communities ensures that our research and educational programs engage both traditional and innovative areas of study and global concerns. UNLV's distinctive identity and values permeate a unique institution that brings the best of the world to our region and, in turn, produces knowledge to improve the region and world around us.

UNLV is committed to and driven by these shared values that will guide our decision making:

- High expectations for student learning and success;
- Discovery through research, scholarship, and creative activity;
- Nurturing equity, diversity, and inclusiveness that promotes respect, support, and empowerment;
- Social, environmental, and economic sustainability;
- Strong, reciprocal, and interdependent relationships between UNLV and the region around us;
- An entrepreneurial, innovative, and unconventional spirit.

## UNLV's Top Tier Mission

UNLV's diverse faculty, students, staff, and alumni promote community well-being and individual achievement through education, research, scholarship, creative activities, and clinical services. We stimulate economic development and diversification, foster a climate of innovation, promote health, and enrich the cultural vitality of the communities that we serve.

## Core Themes and Objectives

UNLV is accredited by the Northwest Commission on Colleges and Universities (NWCCU). Each institution accredited by NWCCU established core themes as part of the revisions to the accreditation standards.

The core themes of UNLV, the objectives, and their indicators of achievement express the mission of the university. The core themes describe in broad statements what UNLV plans to accomplish and reflect the values that are shared by faculty, students and staff. Evaluation of the metrics associated with the indicators of achievement will demonstrate how effectively UNLV is carrying out its mission.

Core Theme 1: Promote Student Learning and Success

**Objective 1: Recruit, retain, and graduate an engaged and diverse student body.**

**Indicators of Achievement:**

1. Academic preparation
2. Recruitment and enrollment
3. Alignment of campus resources to support retention/persistence and graduation
4. Post-graduation education and employment

**Objective 2: Provide a high quality teaching and learning experience.**

**Indicators of Achievement:**

1. Student academic performance
2. Student satisfaction with major academic areas, quality of instruction, academic support, and institutional resources

3. Faculty involvement and satisfaction with the teaching and learning environment
4. Student involvement in research, creative activities, and co-curricular activities

**Objective 3: Advance graduate education to promote student learning and achievement.**

**Indicators of Achievement:**

1. Academic and professional success of graduate students
2. Levels of graduate student support

Core Theme 2: Advance and Support Research, Scholarship, and Creative Activity

**Objective 1: Cultivate quality and productivity of research, scholarship, and creative activity.**

**Indicators of Achievement:**

1. Quality and quantity of publications and creative activities
2. Quality and quantity of grants, contracts, patents, and licenses
3. Levels of support for faculty and staff

**Objective 2: Encourage student research, creative, and professional practice activities.**

**Indicators of Achievement:**

1. Support research opportunities for graduate and undergraduate students
2. Multidisciplinary, integrative collaborations in graduate education
3. Mentoring and professional development of graduate students

**Objective 3: Enhance the infrastructure and business practices that support research, scholarship, and creative activity in all pertinent units of the institution.**

**Indicators of Achievement:**

1. Availability and access to support staff and facilities
2. Quality and quantity of space and equipment
3. Technology, electronic initiatives, and information resources

Core Theme 3: Foster a Diverse Campus Population and Engagement with the Community

**Objective 1: Foster an inclusive environment that values and encourages tolerance and respect.**

**Indicators of Achievement:**

1. Efforts that ensure a civil and respectful learning and working environment
2. Support for learning about inclusion through both curricular and co-curricular activities

**Objective 2: Promote scholarship that advances community partnerships and economic diversification.**

**Indicators of Achievement:**

1. Community collaborations that address regional economic vitality, environmental stewardship, social well-being, and cultural understanding
2. Institutional support of and participation in partnerships with industry, government, and other entities

**Objective 3: Cultivate a university community that promotes awareness of a diverse and changing world.**

**Indicators of Achievement:**

1. Global partnerships
2. Campus and community engagement on evolving local, national, and global issues

## **Nevada System of Higher Education**

The Nevada System of Higher Education, comprised of two doctoral-granting universities, a state college, four comprehensive community colleges and one environmental research institute, serves the educational and job training needs of the nation's fastest growing state. The NSHE provides educational opportunities to more than 108,000 students and is governed by the Nevada Board of Regents.

*Daniel Klaich, Chancellor*

The Board of Regents wishes to advance student learning to the highest level, foster the expansion of knowledge through teaching and research, encourage community service, and enrich the lives of our students, our communities, our state, and the nation. In fulfillment of this purpose, we hold the following values at the center of our endeavor:

- Integrity
- Excellence
- Accountability
- Inclusiveness
- Creativity
- Innovation

## **Board of Regents**

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## **A Message from the UNLV President**

This is an exciting time to pursue graduate and professional studies at UNLV. The university is building on its considerable teaching and research strengths

and is poised to enter the top tier of universities. UNLV offers its graduate students exceptional programs, outstanding faculty, and a supportive atmosphere. Faculty members are generous with their time and mentoring. Whether you want to advance professionally, pursue an academic passion, develop your talent, or engage in high-impact research, UNLV is dedicated to delivering a quality educational experience.

If you are new to UNLV like I am, I think you'll find what I have discovered. UNLV is a dynamic institution that contributes to, and is embraced by, the community. There is tremendous energy here. Your creativity and scholarly pursuits are important to us. Thank you for looking at what UNLV has to offer. Together we can work toward a better future regionally, nationally, and internationally.

A handwritten signature in black ink that reads "Len Jessup". The signature is fluid and cursive, written in a professional style.

*Len Jessup*

**UNLV President**

## **The President's Cabinet**

The President's Cabinet is composed of the university's vice presidents, assistant president/chief of staff, general counsel, President's Advisory Council chair, and athletic director.

The cabinet's mission is to provide advice and counsel to the president on matters regarding policies, procedures, and strategic planning.

### **Nancy B. Rapport, J.D.**

Acting Executive Vice President & Provost

### **Gerry Bomotti**

Senior Vice President for Finance & Business

### **William G. Boldt, Ed.D.**

Vice President for Advancement

### **Juanita Fain, Ph.D.**

Vice President for Student Affairs

### **Thomas Piechota, Ph.D.**

Interim Vice President for Research & Dean of the Graduate College

### **Tina Kunzer-Murphy**

Director of Athletics

[More about Tina Kunzer-Murphy](#)

### **Elda Luna Sidhu, Esq.**

General Counsel

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### **Fred Tredup, Ed.D.**

Chief of Staff

[More about Fred Tredup](#)

### **Luis Valera, J.D.**

Interim Vice President for Diversity Initiatives and Government Affairs



## **A Message from UNLV'S Executive Vice President and Provost**

Welcome to the Graduate College at the University of Nevada, Las Vegas! Whether you are a continuing student or just exploring our offerings, you will find a university on the move that is constantly building graduate programs for today's world. Because we serve a large, dynamic (and unique) metropolitan area, we offer a wide range of professional and master's degrees for the professional looking to improve their career prospects. We are also a significant research university, with a range of Ph.D. programs in research-intensive areas. I am sure that you'll find our accomplished faculty poised to help you achieve your goals..

As part of its overall goal to be the very best university that it can be, UNLV is currently pursuing Carnegie Research / Very High status, as measured by the Carnegie Foundation. This effort will materially improve our graduate programs and the scope, complexity, and prominence of research at UNLV. The result of this pursuit of a true Top Tier status will be a more engaged university that better serves our students, our community, and our state. Over the next few years, we expect the energy on the campus to grow in proportion to our investments in faculty positions, facilities, and student support. We are delighted that you're considering becoming a part of the UNLV family in this exciting time. We're sure that you'll notice the difference that this effort will make on our campus.

Whether you're continuing your studies at UNLV or are new to our campus we welcome you, and we want your experience with us to be productive, challenging, and enjoyable. Best of luck with your academic pursuits!

***Nancy B. Rapoport***

***Acting Executive Vice President and Provost***

## Graduate College Dean's Message



### *A Message from the Dean of the Graduate College*

Welcome to the Graduate College at the University of Nevada, Las Vegas! I am pleased to invite you to explore our Graduate

Catalog to familiarize yourself with the stellar graduate programs that we offer. I also encourage you to peruse our website to better understand the breadth and depth of the services that we provide to prospective students, current students, graduate faculty, alumni, and donors.

UNLV's more than 135 graduate programs offer outstanding quality and opportunity for admitted graduate students. At UNLV, graduate students are able to work closely with world-class graduate faculty who are conducting research that will improve the well being of our community and state, and positively impact our nation and the world. We pride ourselves on cultivating a campus culture that promotes graduate faculty excellence, graduate program quality, and support for our graduate students. A key part of the graduate educational experience here is our students' involvement in the performance of superior research, innovative scholarly endeavors, and inspired creative activities.

UNLV is a Carnegie Research High doctoral granting institution ranked in the top 4.5% of U.S. universities. With more than 28,000 students of which more than 4,000 are graduate and professional student scholars, supported by more than 3,000 faculty and staff, UNLV is a vibrant and exciting center of learning. Located in one of the fastest-growing and enterprising metropolitan areas in the country, Las Vegas is truly a unique laboratory for graduate study, and Southern Nevada provides extraordinary opportunities for engaged research. Our mission to become a Top Tier institution highlights our commitment to excellence in graduate and doctoral studies; it is truly an exciting time to be part of the UNLV Grad Rebel community!

The Graduate College is guided by the mutually reinforcing goals of providing graduate students with the highest quality academic experience, and cultivating a scholarly atmosphere that values and supports graduate faculty and advanced studies. This mission is guided by our core values of excellence, equity, diversity, opportunity, and impact. Graduate education at UNLV offers students the chance — and the challenge — to grow academically and professionally in a nurturing learning environment surrounded by others similarly dedicated to intellectual pursuits. UNLV's Graduate College will help guide you as you seek out the challenge, excitement, and rewards of advanced study; we are committed to enhancing and facilitating your graduate experience at UNLV.

Thank you for your interest in graduate education and research at UNLV! Our Graduate College staff is here to assist you, and to support prospective and current graduate students, our alumni, and our graduate faculty. I invite you to contact us if you have any questions, if you are interested in pursuing graduate study at UNLV, or if you would like to discuss options for becoming a donor and supporter of the UNLV Graduate College. I would be honored to assist in bringing you into our graduate community of scholars and UNLV Rebels!

All my best,



***Kathryn Hausbeck Korgan, Ph.D.  
Dean, UNLV Graduate College***

# The UNLV Graduate College

## History

The University of Nevada, Las Vegas – then Nevada Southern – began offering some graduate courses in the 1950s, but it was not until 1964 that the university established the Division of Graduate Studies. In 1967 the university conferred its first eleven graduate degrees: nine of the degrees were from the School of Education and two were from the School of Science and Mathematics. Then in 1971-1972, the Graduate College was established by the University Board of Regents. After decades of growth and maturation, today the Graduate College is responsible for graduate faculty, Master's, Doctoral, and Specialist degree programs, as well as graduate certificate programs, and graduate degree and non-degree seeking students at the University of Nevada, Las Vegas.

## Mission

The Graduate College provides strong leadership to facilitate Tier One graduate education, extend educational opportunities to graduate students, ensure the consistent and fair application of policies, and provide support for graduate faculty and programs by cultivating an environment in which the highest quality graduate scholarship and research can thrive. Our guiding principles are: excellence, equity, diversity, opportunity, and impact. These core values reflect our commitment to creating a campus culture in which graduate education and graduate students flourish. The role of the Graduate College is to promote excellence in graduate education, and foster a community of graduate faculty and scholars that is characterized by diversity, openness to new ideas, and the production of cutting edge research, scholarship and creative activity.

## Goals

The overarching and guiding goals of the Graduate College are:

1. To establish and maintain University-wide graduate standards and policies.
2. To support program-level graduate requirements and policies, as well as

graduate curriculum and innovative new program development.

3. To successfully recruit, admit, retain, support, and graduate a diverse and outstanding graduate student body.
4. To foster scholarly and creative excellence among the graduate faculty and graduate students through research, teaching, and professional development opportunities.

## Objectives

The organization of the Graduate College supports the accomplishment of these seven major objectives, in pursuit of our goals:

- To establish and maintain NSHE, University, and Graduate College policies and standards in a fair, consistent and equitable manner.
- To strategically create high quality, innovative, and responsive graduate programs that meet the needs of the region, the state, and the broader discipline, and to periodically review all graduate programs via routine assessment and scheduled program review processes to ensure high quality educational programs.
- To support and maintain academic quality in graduate programs and curriculum, through collaboration with graduate programs, the Graduate Council, and the Faculty Senate program review process.
- To increase graduate student diversity and quality through focused outreach strategies and internal programming targeted at identifying, admitting, and supporting under-represented applicants and all students.
- To be attentive to graduate student retention issues and improve graduation rates through strategic tracking and assessment mechanisms, effective outreach, seamless support to graduate programs, student professional development opportunities, and an overall paradigm of service to our constituents.
- To enhance opportunities and support available for graduate student funding in the form of graduate assistantship (GA)

packages, research funding, scholarships, and fellowships.

- To provide responsive and efficient customer service and support to our constituents.
- To support and enable graduate faculty governance, and to nourish a climate of excellence for and among our graduate faculty, including graduate faculty support for outstanding graduate student mentorship.
- To work closely with the Graduate Council, graduate faculty, the Graduate & Professional Student Association (GPSA) and graduate students, and graduate programs, to achieve our shared goals and enhance the graduate community at UNLV; we strongly believe that striving for excellence is a collaborative effort.

To accomplish these objectives, the Graduate College's areas of responsibilities include the following:

1. **Recruitment.** Collaborate with graduate programs to support the recruitment of diverse and outstanding new graduate students.
2. **Admissions.** Prospective graduate students apply for admission for graduate study in the Graduate College and the department or program in which they wish to study, simultaneously. The Graduate College evaluates applicant transcripts, foreign credential evaluations, GPA, and English proficiency. Departments recommend applicants for admission (or they deny their application), and the Graduate College renders the final decision. Meeting Graduate College admissions requirements is a necessary, but not sufficient, condition for graduate admission.
3. **Retention and graduation.** The Graduate College utilizes graduate tracking data, best practices, and innovative programs to foster successful student retention and to stimulate the pipeline to graduation.
4. **Graduate student probation and separation.** The Graduate College is responsible for handling graduate student probation, and for separating students who

are failing to successfully progress in their graduate programs.

5. **Graduate Student Records.** The Graduate College is responsible for the maintenance of all graduate student academic records and required forms.
6. **Electronic Systems & Data.** The Graduate College is responsible for the design, management, and coordination of electronic systems & strategic data to support graduate students, graduate faculty, staff, and graduate programs.
7. **Conferral of Degrees.** The Graduate College is responsible for certifying and posting all graduate degrees and certificates.
8. **Program Review.** This involves the periodic review of all programs and departments that offer graduate or professional degrees, in conjunction with the Graduate Council and the Faculty Senate (excluding The Law School and the School of Dental Medicine).
9. **Curriculum and Program Development.** The Graduate College works closely with the Graduate Council to oversee: all graduate and professional curriculum development; new, innovative, graduate program development; and to review and approve all changes to existing graduate programs.
10. **Graduate Student Funding.** The Graduate College oversees and runs the GA program, and is the centralized unit for the distribution of graduate scholarships and fellowships. We coordinate with Financial Aid on periodic cost of living studies for graduate students, and on the awarding of scholarships, and other graduate student financial matters. We collaborate with the UNLV Foundation in the development of new graduate funding sources and graduate scholarship and fellowship awards.
11. **Graduate Student Services.** The Graduate College provides professional development opportunities for graduate students, non-academic advisement, and outreach services, and handles all graduate student academic appeals.

12. **Graduate & Professional Student Association (GPSA).** The Graduate College works closely in support of the GPSA, and the GPSA manager, and co-sponsors events such as the Annual GPSA Research Forum.
13. **Graduate Faculty.** The privileges, rights, and responsibilities associated with full and associate graduate faculty status are designated by the Graduate College, which reviews and approves all applications for GFS. Further, the Graduate College is committed to supporting graduate faculty in their scholarship, mentorship, and other professional endeavors related to, and supportive of, graduate education.
14. **Awards and Recognition of Achievement.** The Graduate College runs several prestigious award competitions each year to recognize outstanding accomplishments by graduate students and graduate faculty. Striving for excellence is a collaborative effort. The Graduate College works closely with the Graduate Council, graduate faculty, the GPSA and graduate students, and graduate programs, to maintain and enhance excellence in individual disciplines and to achieve our shared mission, goals, and objectives. Striving for excellence is a collaborative effort. The Graduate College works closely with the Graduate Council, graduate faculty, the GPSA and graduate students, and graduate programs, to maintain and enhance excellence in individual disciplines and to achieve our shared mission, goals, and objectives.

### **Equal Opportunity**

It has been, and will continue to be, the policy of the University of Nevada, Las Vegas, to be an equal opportunity institution. UNLV is an EEO/AA/Title VI/Title IX/Section 504 institution. All applicants to the Graduate College, and admitted students, will receive equal consideration and access to programs and activities, without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation, gender identity, age, disability, or covered US veteran status.



## Campus & Community

With more than 27,000 students and 3,000 faculty and staff members, the University of Nevada, Las Vegas (UNLV) is located on 340 tree-lined acres in the heart of the fastest growing metropolitan area in the nation. Founded in 1957, UNLV is home to 19 colleges and schools and offers more than 200 undergraduate, master's, and doctoral degrees to students from 47 states, Puerto Rico, Guam, and a host of foreign nations.

Ranked in the category Doctoral/Research Universities-Intensive by the Carnegie Foundation for the Advancement of Teaching, UNLV is home to the world-renowned William F. Harrah College of Hotel Administration as well as Nevada's only law and dental schools.

The library is the heart of any university campus, and the Lied Library is a superb facility that utilizes the newest technology, including the Lied Automated Storage and Retrieval (LASR), which integrates industrial automated materials handling technologies with the online library catalog system to provide an innovative solution to long-term library storage. The library also houses a Special Collections department with materials relating to such topics as Nevada history and gaming, among others.

UNLV also has many on-campus research facilities and well-equipped laboratories to serve a growing undergraduate population and more than 5,000 graduate students. Further information on these and other research centers may be found elsewhere in this catalog.

The campus' spacious lawns and walkways are shaded by trees and complemented by desert foliage. In fact, the entire 340 acre campus, dubbed "The Emerald in the Desert," has been designated an arboretum. Just outside the campus are apartments, restaurants, shopping centers, libraries, hospitals and all the other hallmarks of a modern urban area.

To keep pace with the tremendous growth of the University and the community, UNLV in 2004 dedicated its first regional campus at Shadow Lane, which is home to the school of dental medicine as

well as a state-of-the-art biotechnology research center.

UNLV is also currently engaged in the development of "Midtown UNLV," a public-private endeavor aimed at creating a culturally diverse university district in the area surrounding the main UNLV campus.

Dozens of musical, dramatic, dance and artistic groups have been formed under the auspices of the university and perform regularly for campus and community audiences. Each year, a number of popular stage and screen performers and recording artists from every musical category are featured in concert in the university's events centers.

Many other campus activities are scheduled for students and the general public. The Consolidated Students of the University of Nevada (CSUN), the student government, sponsors film series', lecture series', dances, intramural athletics, concerts, and special events throughout the year. The "Rebel Yell" student newspaper, UNLV-TV, a campus and public-affairs television station, and a nonprofit radio station serve the UNLV community.

The university also has excellent sports facilities for use by students, including lighted tennis courts, playing fields, a 50-meter Olympic swimming pool, two gymnasiums, handball/racquetball courts, dance studios, gymnastics and weight-training rooms, baseball and soccer fields, and a full size track for jogging enthusiasts.

UNLV is a member of the American Association of State Colleges and Universities, the Council of Graduate Schools in the United States, the Western Association of Graduate Schools, the American Council on Education, and the Western College Association. In addition to full accreditation by the Northwest Commission on Colleges and Universities, the university is recognized by the Nevada State Department of Education for preparation in all fields for which it conducts programs.

## Las Vegas and the Southwest

Southern Nevada has many attractions. Like any other large metropolitan area, it has fine libraries,

museums, community theater, art galleries, and renowned parks which are enjoyed and supported by nearly two million local residents. University cultural events provide yet another form of entertainment in a city that bills itself as the Entertainment Capital of the World. Two of the university's yearly series, the Charles Vanda Master Series and the Barrick Lecture Series, are extremely popular with students and community residents.

The Charles Vanda Master Series offers visiting performers of the caliber of Isaac Stern, Andre Segovia, the London Symphony, and Itzhak Perlman. The Barrick Lecture Series brings well-known persons to campus for free public lectures on a variety of topics. Lecturers have included Walter Cronkite, Ken Burns, Louis Rukeyser, Benazir Bhutto, Arthur Ashe, Henry Kissinger, John Kenneth Galbraith, Jimmy Carter, and Cokie Roberts. The series also has featured important scientists and academicians like Carl Sagan, Jane Goodall, Mortimer Adler, and Richard Leakey.

Of course, any college experience includes more than the intellectual stimulation of the classroom and the physical confines of the city and campus. It also takes color and character from the university's larger environment. For UNLV, this is the Southwest.

Mild desert temperatures make outdoor recreation possible throughout the year in Southern Nevada. Within a 30-mile radius lie the shores of Lake Mead, massive Hoover Dam and the Colorado River recreation area, the snow-skiing and hiking trails of 12,000-foot Mt. Charleston, and a panorama of red rock mountains and eroded sandstone landscapes. In addition, the city is only several hours by car from the beaches of Southern California and the national parks of Utah and Arizona.

Las Vegas enjoys a mild year-round climate, but there are noticeable seasonal differences. The annual average temperature is 79 degrees, but it is not unusual for the mercury to hit the 110 degree mark during the summer and dip into the 30s in the winter. Annual rainfall amounts to only 3.5 inches, much of it falling in the winter when it is snowing in the nearby mountains.

## Your Graduate School Experience

The reasons for enrolling in graduate school are as varied as the people who make up the graduate student population. Your decision to seek an advanced degree means that you share with other UNLV graduate students a spirit of adventure that comes with discovery—discovery of new information, new skills—and discovery of the depths of your own intellectual abilities. You will also share a capacity for hard work, because graduate study, whatever the subject matter, is difficult. But at the end of the rigorous and oftentimes exhilarating graduate coursework and research in your chosen field, you will have the satisfaction of having mastered a body of knowledge that places you in an elite group. Earning your graduate degree will be an achievement that marks the beginning of a professional career, more than an end of your academic studies. Your graduate degree will prepare you to engage with other experts in your field and to move forward to make notable contributions in your area of study and beyond.

## The Graduate College at UNLV

The university's advanced degree programs are based on close working relationships between students and faculty. Although most programs can be developed to meet the needs and interests of the individual student, the student must also satisfy all departmental and Graduate College requirements. Therefore, it is important that all students carefully read the appropriate sections of this catalog and stay in close contact with the faculty members in their degree program. Students are responsible for being aware of and observing the policies and regulations stated in the Graduate Catalog. Please note that ignorance of campus policies is not a sufficient reason for exemption from said policies.

The Graduate Dean and the Senior Associate Dean, with the advice of the Graduate Council determines policies and procedures of the Graduate College. The Council consists of one delegate from each academic department that houses an advanced degree program, and it operates with standing committees. The Graduate and Professional Student Association also has representatives on the Graduate Council. The

Graduate Dean and Senior Associate Graduate Dean are ex-officio members of the Graduate Council and each standing committee.

Once enrolled as a student, you will have various responsibilities within the academic community. The conduct of all persons affiliated with the *University of Nevada, Las Vegas* is governed by the *Rules and Disciplinary Procedures for Members of the University Community*. This code outlines the responsibilities of students, faculty, staff and administration as well as the rules, sanctions and hearing procedures in effect on the campus. Printed copies of the code are available in the Registrar's Office. The UNLV Student Conduct Code is available through the UNLV Office of Student Conduct.

**Additional information may be found in this catalog and on the Graduate College website.**

## Services for Graduate Students

The Graduate College offers services to support graduate students in many different areas. In cooperation with various offices at the University of Nevada, Las Vegas, Graduate Student Services seeks to provide information and programs aimed at the unique needs of graduate students.

**Orientation.** Every semester, prior to the beginning of classes, the Graduate College conducts an orientation for new graduate students and graduate assistants. Each department and/or program offering a graduate degree provides additional orientation and advising for new students.

**Recruitment.** UNLV is committed to growing selectively, serving the region, and achieving distinction. In recognition of this commitment, the Graduate College works with academic departments who seek to develop, implement, coordinate, and monitor their recruitment programs and outcomes. The UNLV Graduate College also proudly participates in the McNair Scholars Program, which helps to identify and prepare under represented and minority students for graduate school.

**Graduate REBEL Success Center.** The Graduate College Grad REBEL Success Center is a virtual

success center designed to help graduate students engage with departments and colleges around campus; provide opportunities for professional development, research engagement, and scholarly activities; help graduate students successfully complete their degrees and move into their desired field of work; and build and maintain a lifelong relationship between graduate students and the Graduate College.

**Thesis and Dissertation Support.** For many programs, the thesis or dissertation represents the culmination of the graduate experience. These students' final theses and dissertations must conform to the formatting guidelines established by the Graduate College, and students must submit a single hard copy of the final document, as well as an electronic copy, before conferral of their graduate degree. The Graduate College provides guidance, oversight and direction to graduate students and faculty concerning the policies and procedures for final submission of the thesis or dissertation.

**Professional Development Programs.** The Graduate College works with other campus units to provide a formal, value-added experience for graduate students that will enhance their career development in the areas of teaching, research, and other scholarly skills.

*Student Advising Services.* The Graduate College advising services provide informal and student-centered issue-resolution services, and general non-academic advising advice, to graduate students and prospective graduate students. The office offers guidance, information, and assistance when regular channels have failed to provide graduate students with the information that they need to solve problems or make informed decisions.

*Note: The office does not provide academic advising; students must consult with the graduate coordinator or their designated faculty advisor in their own graduate program, or program of interest, for academic guidance.*

## **Graduate and Professional Student Association**

The Graduate & Professional Student Association was formed in 1980 to provide additional opportunities for graduate students to interact, both socially and academically, and to provide a forum for dealing with problems specific to graduate student life. The GPSA's primary goals are to improve the quality of graduate education and the graduate student experience, and to offer graduate student grants for research and other scholarly projects.

Each department on campus has a graduate student GPSA representative who attends GPSA meetings, participates on GPSA committees, and communicates all pertinent information concerning the GPSA to his/her constituents. The GPSA has graduate student representation on all standing committees of the Graduate College, and participates in at least one community service project each semester.

The GPSA office provides a study area, a copy service and a computer lab, all in the Lied Library. The office is open year round, all day, and some evenings. Meetings are held on the first Monday of every month in the Student Union, and all graduate students are encouraged to attend and participate. For more information visit the GPSA website, or contact the GPSA office in Lied Library, Room 3251, or call (702) 895-2261.

## Admission & Registration Information

The UNLV Graduate College welcomes applicants from all over the nation and the world to join our community of scholars. Our more than 125 graduate programs provide an outstanding opportunity for advanced study in numerous areas of research and creative activity. Admission to the Graduate College at the University of Nevada, Las Vegas is competitive. The rules and criteria established by the Board of Regents, University, Graduate College, and individual graduate programs determine admissibility. Applicants must meet minimum admissions requirements as established by the Graduate College; once they do so, the graduate program makes their final recommendations on admission based on the application materials required by the department.

The Graduate College processes applications and supporting materials as they are received. Application deadlines vary by department; applicants should contact the department where they are seeking admission to get this information. In consultation with the Graduate College, departments have the right to establish additional admission standards and criteria. It is the responsibility of the applicant to contact the appropriate department for information on additional departmental admission requirements. Please note that applicants must submit admissions materials to both the Graduate College and their graduate program of interest simultaneously in order to apply for admission. The process below describes the Graduate College requirements; please also follow the requirements, guidelines and deadlines of your degree program of interest.

UNLV is an EEO/AA/Title VI/Title IX/Section 504 institution. All qualified applicants to the Graduate College, and admitted students, will receive equal consideration without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation, gender identity, age, disability, or covered US veteran status.

### Requirements for Domestic Applicants

Applicants must meet the following academic requirements:

1. Hold a four-year baccalaureate degree from a regionally accredited institution or an approved equivalent.
2. Have a minimum overall undergraduate grade point average of 2.75 (4.00=A), or a minimum 3.00 GPA (4.00=A) for the last two years (60 semester credits) of study.

### Policy on English Proficiency Requirement for Graduate Admissions

International applicants must provide proof of English proficiency. Applicants are exempt from this requirement if they are from countries where English is the native language. Applicants who received a post-secondary degree from an institution where English is the language of instruction are also exempt from this requirement.

Acceptable official documents submitted by the testing agency:

Test of English as a Foreign Language (TOEFL)

- Internet-based: Total minimum score 80.

International English Language Testing System (IELTS)

- Minimum score: 7

Michigan Test of English Language Placement (MTELP)

- Minimum score: 85

Graduate departments may require a higher minimum score for admission.

### Exceptions

With the support of the academic department, the Graduate College may accept the following scores for applicants with cumulative GPA of 3.75 or higher (4.0 scale). In addition to the GPA requirement, the academic department must provide evidence of academic excellence as rationale for such an exception.

Any requests for exceptions must be submitted to the Graduate College with support from the academic department/unit chair and graduate coordinator.

Scores lower than the following will NOT be considered for exception:

Test of English as a Foreign Language (TOEFL)

- Paper-based minimum score: 547
- Computer-based minimum score: 210
- Internet-based: 77

International English Language Testing System (IELTS)

- Minimum score: 6.5

Michigan Test of English Language Placement (MTELP)

- Minimum score: 80

Any students admitted on exception will be required to visit with the UNLV English Language Center (ELC) for an assessment upon arriving on campus and take any courses prescribed by the ELC to remedy any English language deficiencies. Failure to complete prescribed courses within the time frame stipulated by the ELC will result in separation from the University.

### **Requirements and Procedures for International Applicants**

Credentials not written in English must be accompanied by an English translation certified as true by a university official, an official representative of a United States embassy or consulate, the United States Information Service, the United States Education Foundation, or an approved professional translating service. Notarized copies of originals or translations are not considered official.

International applicants must submit a completed Certification form and Bank Letter to the Office of International Students & Scholars, must satisfy the financial eligibility requirements, and receive their Letter of Admission from the Graduate College by July 1 if admitted for fall semester and November 15 if admitted for the spring semester before an I-20 will be issued.

For information concerning matters not related directly to the degree program (housing, fees, etc.), contact the Office of International Students and

Scholars. Once admitted, international students must consult with this office and their academic advisor.

### **Application Procedures for Domestic and International Applicants**

To be considered for admission, prospective students must complete two simultaneous application processes: one in the Graduate College and the other in the department that offers your program of study. The Graduate College requires the same application and admission materials from all prospective graduate students, regardless of department of interest. Individual academic departments may require satisfactory composite scores on standardized tests, letters of recommendation, a personal statement, portfolio, or any combination of these or other items. Because departmental requirements vary, please *refer to your department of interest* for specific application requirements and deadlines.

To apply to the Graduate College, submit the following admission materials for consideration:

- A completed application: The application is available for you to fill-out online by selecting the "Apply Yourself Application" link on the Graduate College homepage at <http://graduatecollege.unlv.edu>.
- A nonrefundable admission application fee, payable to the UNLV Board of Regents by check, money order, or online by credit card.

\*Note: Applications and materials will not be processed until the application fee is received. Applicants to multiple UNLV graduate programs must pay the admission application evaluation fee for each application filed. Denied applicants, who later seek admission to the same or other UNLV degree program, are required to pay a new application fee to cover processing.

- **One transcript from every post-secondary institution the applicant has attended (whether or not a degree was earned)**, showing all coursework, extension and correspondence work, any degrees earned, and the dates that those degrees were awarded. Unofficial transcripts will be accepted as part of the application process. However, if an applicant is admitted, official

transcripts will be required by the date specified on the Certificate of Admission.

- All new applicants (international and domestic), EXCEPT those applying to programs in the College of Engineering or to Management Information Systems or Economics, are required to provide a course-by-course evaluation of all foreign credentials from one of the external evaluating agencies listed below. Foreign credentials refer to transcripts from educational institutions outside the United States. When ordering your foreign credential evaluation, please be sure that your grade point average (GPA) is calculated and included in your agency evaluation.
  - The UNLV Graduate College accepts foreign credential evaluations from any current member of the National Association of Credential Evaluation Services (NACES) with a course-by-course evaluation and grade point average (GPA) included. For a list of all current members, please visit their website.
  - Our preferred list of foreign credential evaluation companies includes:
    - World Education Services
    - Educational Credential Evaluators
    - International Education Research Foundation
    - Josef Silny & Associates
    - Educational Perspectives
    - International Academic Credential Evaluators
- Beginning in the Fall 2015 semester, all applicants to any UNLV graduate program who have received degrees from the

specified list of schools are exempt from the foreign credential evaluation requirement, unless the UNLV Graduate College has concerns or questions about the validity or content of transcripts.

\*Note: Only transcripts sent directly from the institution are considered official. Failure to disclose all course work and/or degrees awarded will result in rescission of admission.

#### **Send Graduate College admission materials to:**

University of Nevada, Las Vegas  
Graduate College  
FDH 352 Box 451017  
4505 S. Maryland Parkway,  
Las Vegas, NV 89154-1017

Mailing addresses for specific graduate programs are available on department websites via the Graduate College website. Applicants must submit admission materials to your department of interest by their deadline. Because departmental requirements vary, please be sure to refer to your department of interest for specific application requirements. Many graduate programs require some or all of the following documentation:

- **One official transcript from all post-secondary institutions attended**, showing all degrees and the dates awarded and extension and correspondence work. Only transcripts sent directly from the institution are considered official. Some departments only require unofficial transcripts; please check with your department of interest to confirm.
- **Letters of recommendation sent by former instructors, employers, or other professionals** who can evaluate the applicant's potential to complete graduate study.
- **Resume, portfolio, etc.** Some departments may request additional materials (i.e., resume, portfolio, statement of purpose, writing samples, and the like).

**Standardized test scores.** In addition, some departments may require satisfactory composite scores on the Graduate Record Examination (GRE),

Graduate Management Admission Test (GMAT), Miller Analogies Test (MAT), or other standardized tests. Some examinations are given only four or five times a year and require that registration be completed a minimum of six weeks prior to the test date. With the exception of the Miller Analogies Test (MAT), students may take the required tests online, or at other colleges or universities if taking them at UNLV is inconvenient for the applicant.

### **The Admission Process**

1. A Student Admission File is created upon receipt of an admission application and fee. To avoid processing delays, students must submit the online admission application and fee prior to sending additional materials (i.e., transcripts, test scores, letters of recommendation, etc.) and we encourage you to submit unofficial transcripts with your application to decrease processing time. Applicants are responsible for making sure the Graduate College and department receive the appropriate credentials by the required deadlines. All application materials, including transcripts, become the property of the university and may not be released to the applicant or any individual.
2. The Graduate College evaluates the application materials and forwards the initial evaluation to the department for review. The department will make a recommendation to the Dean of the Graduate College for approval. Early submission of all application materials to the Graduate College and department simultaneously, facilitates a more expeditious review process.
3. Applicants will be notified of their admission status on their Apply Yourself page (online). Those accepted to pursue a UNLV graduate degree will receive an electronic Letter of Admission from the Graduate College, which will be posted in their Apply Yourself application. The Letter of Admission is an important document that the student should retain.
4. The student must then log into their MyUNLV account and accept his/her

admission. Students who do not accept admission will not be able to enroll in courses.

5. The admission process is only completed upon enrollment in graduate-level courses for the specified term and degree program indicated on the Letter of Admission. Failure to enroll or subsequent withdrawal from all course work; during the semester of admission will void the Letter of Admission and result in the student's separation from their graduate program.
6. If an applicant does not complete their admission process, the student must reapply and submit another application processing fee to be considered for admission in a future semester. Materials from the previous application, such as official transcripts, may be used if they are still on file with the Graduate College. Official transcripts are kept within the Graduate College for a minimum of one year.

*Note:* Occasionally a student may be admitted with deficient undergraduate preparation contingent on the deficiency being corrected by completing one or two undergraduate courses early in the graduate program. A student may also be required to register for internship credits, or related graduate coursework, to remedy a deficiency related to lack of work experience or field experience prior to admission. Students needing more than two courses are advised to consult with the department for a recommendation on which courses they should take to meet the prerequisite admission requirements. These courses taken to remedy deficiencies identified at admission will not be applied toward the advanced degree. Most College of Education departments require a minimum of 18 undergraduate credit hours in professional education courses. Nevada professional certification may be considered as fulfilling this requirement.

### **Transfer Work**

Any courses used to fulfill requirements for one degree (at UNLV or elsewhere) may not be used toward another degree. For UNLV Non-Degree Seeking graduate students, a maximum of 15 graduate credits (with grades of B or better) taken at UNLV may be applied toward a graduate program,



with the approval of the student's department and the graduate dean. Graduate work from other regionally accredited institutions with a grade of B or higher (3.00, A=4.00) may be transferable into a degree program subject to departmental and Graduate Dean approval. Grades of B-or lower, and courses graded on a satisfactory pass/fail basis, are not transferable into graduate degree programs. With the department and Graduate College approvals, no more than one-third of the minimum number of credits required for the degree (not including credits for thesis, dissertation, and professional/scholarly papers) may be transferred from a regionally accredited graduate degree granting institution.

### **Second Admission or Readmission to the Graduate College**

Students may apply for a second master's degree (in a different department) or a doctoral degree after completing a master's degree. In these cases, students must submit a new application for admission, the required admission processing fee, and all supporting credentials required by the Graduate College and the new department or program.

If a student is admitted to a graduate program but fails to complete that program, and this happens two times in two different programs, that same student may not be eligible for future admission to the Graduate College.

### **Change of Department**

Students are admitted to pursue an advanced degree in a specific department or program. To change to another department or program, students must submit a new application for admission, the required application fee, and all necessary admission credentials to the Graduate College. Upon admission, the student must withdraw in writing from the original department. Graduate students may not be enrolled in two degree programs simultaneously unless they are admitted to a designated dual graduate degree program or they have received special permission from the Graduate College dean.

### **Application Fraud and Revocation of Admission**

We assume that the information provided on the application for admission is complete and accurate. Subsequent evidence to the contrary may result in the admission being revoked and the loss of any credit or degree stemming from the admission. To reapply for admission after a revocation, a new application and fee are required. Students should contact the Graduate College and their department of interest to determine what additional materials are needed. Materials from the previous application, such as official transcripts, may be used if they are still on file with the Graduate College. Official transcripts are kept within the Graduate College for a minimum of one year.

## **Admission Status and Classification of Students**

### **Full Graduate Standing**

Students accepted to pursue a program leading to an advanced degree are classified as having Full Graduate Standing. The Full Graduate Standing classification allows students to plan and matriculate in a degree program, to request formation of an advisory committee, and to be assigned or select a faculty advisor, depending on the degree program.

### **Provisional Graduate Standing**

Students whose previous academic records are not strong enough to merit Full Graduate Standing may be granted probationary admission and classified as Graduate Provisional. This classification does not apply to students with deficiencies or insufficient undergraduate credits in the chosen field of study. The Graduate College and the student's department determine placement in this classification.

A provisional student must complete nine credit hours of graduate-level course work selected by the department and listed on the Certificate of Admission. The student must complete this course work within one year of admission, with grades of B or higher (B- grades are unacceptable) before taking additional course work. Failure to complete the required course work in the specified period or earning a grade less than B (3.00) will automatically revoke the student's admission.

When the Graduate College receives confirmation of the appropriate grades being earned in the required course work, the student will be given Graduate Standing status. A student may only be admitted as a Graduate Provisional student once.

### **Conditional Admission**

A Conditional Admission status does not reflect an applicant's ability to conduct graduate-level work, but is granted when the applicant must complete course deficiencies as part of the or meet some additional requirements before finalizing admission, i.e., a final transcript of course work in progress while applying for admission, a missing letter of recommendation or standardized test score, etc.. Full Graduate Standing or Graduate Provisional students may also be classified as Conditional Admission. The Certificate of Admission will specify which requirements must be met and the date by which they must be met in order to maintain admission to the program. Failure to meet the condition(s) will automatically cancel the student's admission and result in separation from the student's graduate program.

### **Non-Degree Seeking Graduate Students**

The Non-Degree Seeking Student status is assigned to individuals with baccalaureate degrees who wish to take graduate courses but not yet pursue an advanced degree. Applications for admission as a Non-Degree Seeking Graduate Student are processed through the Graduate College. Generally, Non-Degree Seeking Students may enroll in up to 12 credit hours per semester, but they are not eligible for federal financial aid or Graduate College scholarships or fellowships.

Graduate programs and faculty determine whether non-degree seeking graduate students may enroll in their graduate courses. Department faculty are responsible for determining the adequacy of preparation of Non-Degree Seeking Students before allowing them to take upper-division or graduate courses which are open to Non-Degree Seeking Graduate Students. The student should check with the department about graduate courses accessible to Non-Degree Seeking Students. It is the student's responsibility to provide proof of adequate preparation.

A Non-Degree Seeking Graduate Student wishing to seek a degree must apply for admission to the Graduate College and pay an application processing fee. Non-Degree Seeking Graduate Students may transfer up to fifteen UNLV credits with grades of B or higher into a degree program. Courses taken as a Non-Degree Seeking Graduate Student count toward the degree program at the discretion of the graduate coordinator, and/or department chair, and Graduate Dean.

### **Undergraduates Taking Graduate-Level Courses**

Undergraduates with a minimum of 90 semester hours of credit and a 3.00 or higher grade point average may enroll in graduate courses. Students in the Honors Program must have a minimum of 45 semester hours of credit and a 3.00 or higher grade point average. The Approval for an Undergraduate to Enroll in Graduate-Level Course Work Form must be completed and necessary signatures obtained and approved by the Graduate College prior to registration. Students may enroll in up to six hours of graduate-level courses during one semester.

**Reserving Courses for Graduate Credit.** Upon approval, and pursuant to the policy above, UNLV undergraduates may take 500/600/700-level course work and reserve the credits earned for possible use in an advanced degree program. Course work reserved for graduate credit may not be used to satisfy baccalaureate degree requirements.

**Graduate Courses for Undergraduate Credit.** Upon approval, and pursuant to the policy above, UNLV undergraduates may take 600/700-level course work for use in an undergraduate degree program. Courses used in an undergraduate program may not be applied toward an advanced degree at a later date.

### **Immunization Requirement**

Nevada state law requires all University of Nevada, Las Vegas graduate students to submit proof of immunization before they may register for classes. New students are required to provide proof of immunity to remove a registration hold. All students regardless of age must provide documentation of

immunization within the last 10 years for Tetanus-Diphtheria (TD). Students born in or after 1957 must provide documentation of immunity for two doses of live measles (Rubeola), one mumps, and one Rubella vaccination. If you do not have documentation, then you will need to re-establish immunizations before you can attend classes. Proof of immunity should be sent to the Admissions Office for processing. For further information, contact Admissions at (702) 774-UNLV (<http://web.unlv.edu/admissions/immunizations.html>) or contact the UNLV Student Health Center at (702) 895-3370.

## Nevada Residency

The UNLV Office of Admissions determines the Nevada residency of graduate students according to Board of Regents regulations and the laws of the State of Nevada. Persons, such as Nevada certified school teachers and Armed Forces personnel stationed in Nevada, are normally accorded residency status. A full statement of the regulations is available online.

## Registration Policies

The University outlines specific registration procedures in the Registrar's Calendars and Schedules page, which is updated prior to each semester by the Registrar's Office. Students must register for classes using the procedures outlined in the class schedule including enrolling by the dates and times specified for each semester or special session. Students paying fees after the date and time specified in the schedule may be charged a late fee. An administrative drop may result for nonpayment of fees. The registration or enrollment of a student ineligible to attend the University is subject to immediate cancellation. A full-time graduate student is one who is enrolled in nine or more semester credits, or six credits per semester for UNLV graduate assistants.

## Adding or Dropping Classes

Students may add or drop a course up to the close of the late registration period. After this date, and with approval, students may make changes only when the

circumstance is sufficiently extraordinary to warrant an exception.

## Dropping/Withdrawing From Classes

The terms drop and withdraw are used interchangeably. The academic policies and calendar dates for dropping and withdrawing are the same. Drop generally refers to dropping one or more courses during a given semester. Withdrawal generally refers to the act of dropping all courses during a given semester.

A student may drop or withdraw from full semester courses during the free drop period (first ten weeks of the fall or spring semester) without a grade. The instructor must provide a preliminary evaluation of the student's grade before the end of the free drop period. No drops or withdrawals will be permitted after the end of the free drop period as published in the current class schedule (see Grades and Examinations). Refer to the appropriate class schedule for drop dates for special modular courses, short courses, extended education and summer term courses. Students who stop attending class and fail to file an official drop request form with the Registrar will receive a grade of F.

Students who wish to withdraw from all classes must obtain a Withdrawal form from the Registrar's Office, obtain all required signatures, and return the form to the Registrar's Office. The withdrawal is official only after the Registrar's Office accepts it.

A student who has officially dropped a class and who is no longer registered for credit or audit is ineligible for further attendance in that class.

## Cancellation of Registration

The University reserves the right to cancel any registration in specific courses for which the student is ineligible. The registration of any student who is ineligible to attend the University is subject to immediate cancellation. The University also reserves the right to cancel the registration of an individual whose attendance, in the opinion of the appropriate administrative officials, would not be mutually beneficial to that person and to the institution.

## Cancellation of Courses and Programs

The University reserves the right to cancel any registration in which the enrollment is insufficient to warrant offering the course and/or to eliminate, cancel, phase out or reduce in size courses and/or programs for financial, curricular or programmatic reasons.

### **Repeat Policy**

Any course may be repeated, regardless of the grade received. Credit will be allowed only once for successful completion of the course, except for courses designated in the catalog as allowable repeats; these courses may be repeated only up to the maximum number allowed in the catalog and MyUNLV system. A student may repeat any UNLV course once at UNLV and not have the original grade included in the computation of the grade point average. The repeat grade must be on the same grading option as the original grade. The original grade will remain on the student's academic record with suitable notation. For courses repeated prior to February 1971, both the original grade and the repeat grade are included in the grade point average. Students are responsible for providing the Registrar's Office with written notification when a repeat course is completed. Computer-printed grade reports may not initially compensate for repeated courses. Grade point averages, credits attempted, and credits earned will be manually adjusted.

When a course is repeated more than once, only the original grade is omitted in computing the grade point average. The fact that UNLV has granted a degree to a student shall not preclude the student's right to repeat a course for the purpose of improving a grade. However, class standing will not be affected by the results. A student receiving a final grade of 'F' in a course can obtain credit by pre-registering for the course, repeating the class work, and receiving a passing grade.

A failed course cannot be challenged by examination. A failed course does not have to be repeated unless the course is a specific college or department requirement. A student may be allowed to repeat any course once and not have the original grade computed in the graduation GPA. If a course is repeated more than once, only the original grade is omitted in computing the graduation GPA.

### **Unit of Credit**

The unit of credit, or semester hour, is generally defined as one 50-minute lecture per week for a semester. Two or three laboratory hours per week, depending on the amount of outside preparation required, usually carries the same credit as one lecture hour. Please note that graduate courses that are cross-listed with undergraduate courses may require a graduate student to meet for some limited, additional hours to fulfill course requirements as indicated on the course syllabus.

### **Course Numbers**

Graduate-level courses are numbered 500-799. Undergraduate-level courses are numbered 100-499. Some graduate level courses are not usable for graduate credits. One example of this are courses with an RPDP prefix; these are non-graduate credit granting courses and are indicated as such on the UNLV transcript.

### **Symbols**

Numbers separated by a hyphen indicate courses which must be taken in sequence. The first semester is prerequisite for the second, for example, 701-702. Numbers separated by a comma indicate courses which may be taken one without the other, for example (701, 702). Various areas of the same course may be taken for credit. They are indicated by letters, for example A., B., etc.

### **Grading System**

A candidate for an advanced degree must have a minimum Graduate Program Grade Point Average of 3.00 to be eligible to graduate. The Graduate Program GPA, computed by the Graduate College, includes all completed graduate course work accepted at admission and all subsequently approved course work that is being applied toward a degree. Please note that the Graduate Program GPA does not appear on a student's transcript; a student's Cumulative Graduate GPA is posted on her/his transcript and is calculated from all graduate level course work ever taken at UNLV.

The following symbols are used in reporting and recording graduate student grades:

A Superior (4.0)

B Passing (3.0)

C Average (2.0)

D Below Average (1.0)

F Failing

ADAudit (not graded, no credit toward GPA)

I Incomplete (expires after one year; if not grade is submitted in that time frame, the 'I' will default to an 'F' grade)

S Satisfactory

X Hold: Grade is submitted upon completion of Thesis or Dissertation or Professional Paper

*Note:* Faculty members have the option of using plus (+) and minus (-) for grades of A, B, C, and D. Exception: A+ grades are not given. Please also note that at the graduate level, grades below a B are generally considered unacceptable. Graduate students must have a 3.0 GPA in order to qualify for graduation.

#### *I or Incomplete Grade*

The following regulations apply to the 'I' or Incomplete grade:

1. The 'I' grade is used for content/lecture type courses (not thesis, dissertation, or professional paper credits) designed to be completed within one year in instances where the student has completed the majority of the semester course work, but is unable to complete all of the requirements with good cause. The professor is responsible for determining if the reason for non-completion is satisfactory, if an Incomplete grade is appropriate, and the terms of the Incomplete, including what the student needs to do to successfully complete the course requirements and earn a final grade.

2. An 'I' may only be given when a minor part of the course work remains incomplete, and the majority of the coursework has been completed with a cumulative average of 'B' or better.
3. Graduate students receiving an 'I' grade in 500, 600- or 700 level courses have one calendar year to complete all course requirements and remove the 'I' grade; however, the instructor may require that it be made up in less time. If course requirements are not completed within one year, the Registrar's Office will automatically record a grade of 'F'. Note that graduate students taking an "I" in an undergraduate class must complete the coursework within one semester or the "I" will default to an "F."

#### *S or F (Satisfactory or Failing) Grades*

The Satisfactory (S) or Failing (F) mark is used upon completion of the thesis, dissertation, professional paper or for noncredit or satisfactory/fail courses. Grade-point values are not assigned for S. Many graduate and professional schools may not accept satisfactory/fail credits, or accept them only if accompanied by written evaluations of the work accomplished in such courses that bear upon the field of specialization. Additional evidence such as GRE or other advanced test results may also be required. UNLV does not accept graduate courses graded satisfactory/fail for use in a degree program except for thesis, dissertation, or professional paper credits.

#### *Transcripts of Credit*

Official transcripts bear the University Seal, the Registrar's signature, and reflect all academic work attempted at UNLV. Upon written request, the Office of the Registrar will issue official UNLV transcripts. Requests should be made at least one week before the date the transcripts are needed. The Registrar will not issue transcripts for any student having a delinquent indebtedness to the University. In addition, transcripts of work from other institutions will not be issued. Work in progress does not appear on the transcript until the semester or registration period officially ends. Transcripts are not prepared during

final examination, grade recording, and registration periods.

## **Tuition & Fees**

*Fees: All fees assessed by the university are subject to change by the Board of Regents. Every effort is made to keep fees low as possible while rendering the desired level of service. Nonresident fees are calculated to cover a major part of the direct cost of instruction.*

### **Nevada Residency for Tuition Purposes**

#### **Residency Decisions**

The Board of Regents establishes Nevada residency for tuition purposes regulations. For admitted degree-seeking graduate students, residency status is determined at the time of admission to a degree-seeking program and is indicated in the official Letter of Admission from the Graduate College. Please note that new graduate students who live in Nevada, and/or those who have held Nevada residency in the past, may still be classified as out-of-state students upon graduate admission. These students will need to follow the directions on their admission letter and apply for residency in order to be reclassified as a Nevada resident. Non-degree-seeking graduate students will generally be classified as out-of-state until and unless Nevada residency is determined via the residency application process. If the residency status is not "Nevada," out-of-state tuition will be assessed. Residency decisions are made during the application process and will be posted on the admission acceptance letter.

#### **Qualifying for Nevada Residency**

The following categories qualify for Nevada resident status:

1. A member of the Armed Forces of the United States
2. Full-time licensed personnel employed by a public school district in Nevada
3. A teacher who is currently employed full time in Nevada

4. A professional or classified employee of the University and Community College System of Nevada
5. Company relocation (also applies to spouse and children)
6. Family relocation to the state
7. Millennium scholarship recipients
8. A student who has lived in the state for a period of 12 months

### Applying for Nevada Residency

To apply for residency, download and complete the Residency Application and include photocopies of supporting documents. Mail or fax documentation to the Office of Admissions by the application deadline listed in the Academic Calendar and Registration Guide. Residency review for fall applications begins June 1; spring review begins Nov. 1. Please note that Residency is handled and determined by the Office of Undergraduate Admissions for all UNLV students, including graduate students.

### Special Fees and Charges

1. An application fee of \$60 (domestic) is charged to any person applying for admission. The application fee for International applicants is \$95.00, in addition to fees for foreign credential evaluation if necessary. All application fees are non-refundable and not applicable to any other applications.
2. As approved by the NSHE Board of Regents and UNLV, special charges may be accrued for the following:
  1. Courses requiring equipment, facilities or materials not available on the campus, i.e., golf and certain field courses
  2. Courses requiring use of high technology equipment, e.g., computer courses or health profession courses
  3. Private instruction in music and similar arts

4. Noncredit courses, conferences, workshops, postgraduate professional seminars and similar educational offerings
  5. Courses requiring field trips or travel
  6. Personal expenses incurred by students in connection with field trips
  7. Lab and computer usage fees
  8. Differential tuition in select graduate programs
3. The following fees are either assessed or identified at registration:
    1. A late registration fee of \$50 per day to a maximum of \$250 is assessed to students who do not complete registration by the date designated. Summer Term students are assessed a late registration fee of \$10 per day until the end of the late registration period for that Summer Session. In case the time designated for registration is not adequate, the Registrar may defer the assessment of this fee for one day.
    2. Returned Check Fee. Personal checks are accepted in payment of fees owed to the university, although no counter checks or checks altered in any way are accepted. A collection fee of \$25 is assessed for any check returned unpaid by a bank. The check must be made good within 10 days or it will be turned over to a collection agency, and the student will be liable for all collection costs and any other related costs. If a personal check is returned from the bank, the university reserves the right to place the student on a cash basis only and withdrawal procedures may be initiated at the option of the university. A stop payment placed on a check does not constitute withdrawal from courses. Official withdrawal must

be processed as returned checks and are subject to the same fees and collection cost.

3. A graduation and commencement fee of \$75 will be billed to the student's account after the application for graduation is completed through MyUNLV. If a student fails to meet graduation requirements after a diploma has been ordered, \$2.50 of the fee is forfeited. A graduation application is good for two consecutive semesters. If a student still has not graduated after the two semesters have concluded then the student will need to submit a new application along with another \$50 fee.

## Student Health Fee

The Student Health program fees for Fall, Spring, and Summer semester classes are not to be confused with the mandatory UNLV Graduate and Professional Student Health Insurance plan. Student Health Program fees are applicable to all students regardless of health insurance status, and they are used to support various services offered by the Student Wellness Center.

The Student Health program facilitates on-campus educational experiences and leadership opportunities for all UNLV students; is responsible for public health protection of the UNLV community; provides access to health care and provisions, and coordinates health needs for students; provides student counseling and psychological services; and includes the Jean Nidetch Women's Center, which caters to all students.

## Mandatory Graduate and Professional Student Health Insurance

Effective Fall 2013, students who are admitted into a graduate or professional program and are enrolled in 9 credits (regardless of the course level) in a semester, and all graduate assistants, will be automatically billed for student health insurance. It is

then incumbent upon those students who already have health insurance to complete the UNLV online waiver form to waive out of the UNLV student health insurance. Once approved, a health insurance waiver is good for one academic year.

The cost for the UNLV Graduate & Professional Student Health Insurance for domestic and international students in academic year 2015-2016:  
Annual: \$2,246.14  
Fall 2015 Only: \$914.78  
Spring/Summer 2016 Only: \$1,331.36

Please note that all graduate and professional students who do not waive out of the UNLV Student Health Insurance for the Spring semester will be enrolled in the Spring/Summer insurance plan; these are combined and there is not an option to be enrolled in Spring only.

## Optional Group Health and Accident Insurance Fee

All admitted graduate and professional students are eligible to enroll in the UNLV graduate student health insurance plan. If you do not fall in either required category (i.e., 9 or more credits or a GA) then you will need to contact Wells-Fargo to enroll in the student health insurance plan and receive the discounted UNLV graduate and professional student rates.

## Grants-in-Aid

Each student is expected to pay all assessed fees on registration day unless a grant-in-aid is secured prior to registration day. Students are responsible to pay their portion on time. Late fees and/or withdrawal may be initiated for a student's portion and/or reported to a credit bureau. Legal proceedings may be initiated for any default accounts receivable.

## Delinquent Accounts

A student or former student having a delinquent account receivable or an overdue student loan of any amount with any division of the Nevada System of Higher Education shall not be permitted to register, receive any type of transcript of records, grades,



diploma or certificate or obtain services from any division. The university reserves the right to refer any delinquent account to a collection agency and/or report to a credit bureau. Legal proceedings may be initiated for any delinquent account.

## Deferred Payment Option

Deferred payment is available to students who are registered for seven credits or more and are not receiving any sort of financial aid, grant-in-aid, etc. There is a \$20.00 service charge for all deferred fee payment plans. The \$20.00 service charge plus 50 percent of the per credit fee, nonresident tuition (if applicable), and 100 percent of special fees are due by the first installment date. Second installment is due by Friday of the fourth week of instruction. Failure to pay the second half of the deferred payment on schedule will constitute withdrawal from the university. The tuition will still be owed, but the student will not receive credit for the courses. Any delinquent accounts may be reported to a credit bureau. All delinquent accounts not paid as required will be sent to a collection agency. The student is responsible for all collection costs, attorney fees, etc. All students must pay their tuition in full at registration or be on an approved deferred payment to be considered enrolled for the semester. All unapproved accounts will be disenrolled. No exceptions. The university reserves the right to deny deferred payment to any student who does not pay tuition and fees as scheduled, including late fees.

## Refund of Fees

Students who withdraw from the university receive a refund of fees according to the schedule below, which is subject to change by the Board of Regents. All requests for exception to the refund policy for extraordinary circumstances must be made to Student Enrollment Services or the Fee Appeal Committee. An appeal form is available at Student Enrollment Services, Cashier's Office or the Bursar's Office website.

1. For all UNLV students, including auditors, for net credit load reductions and withdrawals from the university, the refund policy is as follows:

1. WITHIN THE FIRST WEEK OF INSTRUCTION.
  1. 100 percent credit of all fees.
2. AFTER THE FIRST WEEK OF THE INSTRUCTIONAL PERIOD OF A REGULAR TERM.
  1. 50 percent credit for total withdrawals from all courses until the end of the sixth week. No credit for total withdrawals after the end of the sixth week.
  2. 0 percent credit for partial withdrawals.
2. For all UNLV students, including auditors, for net credit load reductions and withdrawals from the university during the Summer Term, the refund policy is as follows:
  1. Courses dropped prior to the business day before the start of the instructional period will receive a 100 percent credit.
  2. Courses dropped within the first 20 percent of the course period, as defined by Student Enrollment Services, will receive a 50 percent credit.
  3. There will be no credit for courses dropped after 20 percent of the course period has passed.
3. No credit shall be made for health and accident insurance premiums.
4. Modular courses follow different refund policies than stated above. Inquire at Student Enrollment Services for details regarding a particular modular course's refund policy.
5. Upon written approval of the Vice President for Student Life, a full refund of all registration fees and tuition shall be given upon official withdrawal at any time during the first eight weeks of the semester in the following circumstances:
  1. Induction of the student into the U.S. Armed Forces;
  2. Death of a parent, spouse, child or legal guardian of the student; or
  3. Death of a student.

4. No refund is made if withdrawal is after eight weeks, regardless of the circumstances. All refunds are made by check.
6. In most cases, federal regulations require that refunds for students receiving financial aid must be refunded back to the financial aid program rather than the student. For information about exemptions to this policy, please contact Student Financial Services. Dropping below full time for students on financial aid may invalidate eligibility for financial aid. Students may owe UNLV for financial aid refunds.

### Room and Board Refund

Students withdrawing from the residence hall will receive refunds according to the terms and conditions of the residence and dining hall contract.

### Tuition and Fee Appeals

Appeals regarding financial issues (e.g., tuition refund, tuition waiver, student fees, late fees, etc.) must be submitted separately to the UNLV Student Accounts Office, using their Tuition & Fee Appeal Form . If an appeal involves both an academic and financial issue, the student should submit an academic appeal first to the Graduate College and wait for a decision before commencing with the financial appeal to the Student Accounts Office. For further information concerning the financial appeal process please visit the cashiering and student accounts appeal site.

## Student Financial Services

The University of Nevada, Las Vegas provides a wide variety of assistance to finance higher education expenses. Grants, scholarships, part-time employment, and educational loans are available to help students with educational costs while attending UNLV. Students are encouraged to explore all possible resources. Financial Aid Administrators are available to discuss the variety of resources available and to assist graduate students in the application process. For further information, contact UNLV Student Financial Aid & Scholarships, located in the Student Services Complex, at (702) 895-3424. The Graduate Student Financial Services office cannot assist with financial aid, but may be able to assist with information regarding Graduate Assistantships, scholarships and fellowships. Graduate Student Financial Services are located in the Graduate College on the 3rd floor of the Flora Dungan Humanities Building, and can be reached via email at [GradFinancialSVC@unlv.edu](mailto:GradFinancialSVC@unlv.edu).

### FAFSA

Applying for FAFSA is the first step in becoming eligible for student loans, scholarships, and fellowships. Complete the Free Application for Federal Student Aid (FAFSA) online . UNLV's school code to complete your FAFSA is 002569. Complete and sign your FAFSA with your PIN as soon as possible after January 1st of each year, even if you don't expect to be eligible for financial aid and/or you do want student loans, because submitting your FAFSA may qualify you for certain scholarships or fellowships.

UNLV's priority financial aid consideration deadline is February 1st of each year. You may still apply for financial aid after February 1st, however, there may be limited funding from other aid programs

### Federal Loan Programs

#### UnSubsidized Loans

An unsubsidized loan is available to students regardless of financial need. You must be enrolled at

least half time to be considered for this loan. You will be charged interest from the time the loan is disbursed until it is paid in full.

### **Graduate PLUS Loans**

A Graduate PLUS Loan allows graduate students to borrow up to the financial aid cost of attendance less any other financial aid received. Please visit UNLV Financial Aid - Graduate PLUS Loans for more details.

### **Graduate Assistantships**

The University of Nevada, Las Vegas subscribes to the following statement that has been adopted by the Council of Graduate Schools in the United States and by most of the leading graduate schools in North America:

*Acceptance of an offer of a graduate scholarship, fellowship, traineeship, or graduate assistantship for the next academic year by an actual or prospective graduate student completes an agreement which both student and the graduate school expect to honor. In those instances in which the student indicates acceptance prior to April 15 and subsequently desires to change plans, the student may submit in writing a resignation of the appointment at any time through April 15 in order to accept another scholarship, fellowship, traineeship, or graduate assistantship. However, an acceptance given or left in force after April 15 commits the student not to accept another appointment without first obtaining formal release for that purpose. It is further agreed by the institutions and organizations subscribing to the above resolution that a copy of this resolution should accompany every scholarship, fellowship, traineeship, and assistantship offer sent to a first-year graduate student before April 15.*

A number of state-supported and extramurally funded graduate assistantships are available each academic year. For full information and policy guidelines regarding the UNLV GA Program, please see the Graduate College website. Below are some key GA policies for your review:

1. Applications must be completed and submitted through your ApplyYourself account. While deadlines vary by department, the Graduate College recommends that you submit your application by March 1st for the fall semester and by November 1st for consideration for the spring semester.
2. Applications must be submitted to the department which you are seeking employment no later than March 1 preceding the fall semester in which an assistantship is sought. Applications may be submitted after this date in case of unexpected openings occurring for the fall semester. In rare cases where an assistantship is available for the spring semester, the application deadline is November 15th.
3. An assistantship is normally offered for a full academic year. If a student seeks renewal of an assistantship for the next year, a new application form must be submitted online.
4. A graduate assistantship carries with it a stipend paid monthly for the academic year. This stipend may vary for extramurally funded assistantships. Tuition waivers are usually included with the assistantship. These waivers are approved only for work directly related to the student's degree program (courses numbered 500 and approved for graduate credit and 700-level courses). This waiver covers a significant portion of the per credit hour fee. The state-funded tuition waiver does not cover differential fees charged for some courses. The tuition waiver covers the full amount of out-of-state tuition. The out-of-state tuition waiver does not apply to students who are enrolled in self-funded programs. Tuition waiver amounts may vary for extramurally funded assistantships.
5. Graduate assistantships are not generally available during Summer term. However, tuition waivers are available for state funded graduate assistants during the Summer Term if the student was on a state GA contract in spring, and has been renewed as a state GA

for fall. To take advantage of the summer tuition waiver, the Graduate College must be informed via email at GradFinancialSVC@unlv.edu of your enrollment prior to the start of summer session. Tuition waivers are not available for undergraduate or audited courses. The above policies may differ for extramurally funded assistantships.

6. Graduate assistants must have graduate standing status in a degree seeking program at the time they begin their assistantships.
7. New International GAs are required to successfully pass the Test of Spoken English (TSE) prior to the start of the semester. Students who do not pass the TSE will be required to enroll in a 2 credit oral presentation skills course their first semester as a GA. Students whose graduate assistantship includes instructional duties (lecture, discussion groups, laboratory supervision, tutoring) must receive a successful grade on the TSE prior to assuming these instructional duties.
8. Graduate assistants must carry a minimum of six semester hours of graduate credit per fall and spring semester. To carry more than twelve semester hours of credit, the department chair, academic dean, and the Graduate Dean must approve an Overload Petition.
9. Graduate assistants are expected to spend on the average 20 hours per week on departmental duties in either instruction and/or research.
10. Graduate assistants may not accept employment on or off campus without written permission from their faculty advisor, department chair, and Graduate College Dean. Graduate assistants are prohibited from being employed for more than 10 hours per week beyond their assistantship. The request for additional employment can be found here.
11. Graduate assistants are expected to report in the same time-frame as faculty, i.e., during academic semesters and not during break or vacation times. Graduate Assistants must

report one week prior to the start of classes in both the fall and spring semesters.

12. New graduate assistants are expected, as part of their contract obligation, to attend both the New Graduate Student Orientation Session, and a mandatory GA contract signing session prior to the start of the semester.
13. Graduate assistantships will be terminated if the student does not satisfactorily perform assigned duties. Assistantships will also be terminated if a student does not make satisfactory progress toward the degree. Unsatisfactory progress includes, but is not limited to: filing a degree program late; receiving a grade of less than B; failing to remove an Incomplete grade after one calendar year; and failing comprehensive or qualifying examinations as required by the degree program.

Offers of assistantships, whether state-supported or extramurally funded, are valid only if they come from the Graduate College Dean.

## **Graduate Awards: Scholarships and Fellowships**

### General Information and Guidelines

- Each scholarship/fellowship is awarded for both the fall 2015 and spring 2016 semesters.
- You must remain in good standing in your degree program and enroll in a minimum of 6 graduate credits in each semester of the scholarship/fellowship year (fall 2015-spring 2016) in order to be eligible for an award.
- All applicants must apply through the Graduate College's free Apply Yourself (AY) Portal.
- All applications must be submitted via AY, and each applicant must upload: a C.V., a statement of purpose (maximum 2-3 typed pages), an unofficial UNLV transcript, and full contact information for at least one recommendation provider. Please note that some scholarships/fellowships have

additional requirements, so please read and follow the directions for each scholarship/fellowship carefully.

- The application deadline is December 1st. Note that all letters of recommendation must have been submitted to AY by the close of business on December 1st.
- Failure to submit all required information and materials by the posted deadline (12/1/15) will render you ineligible for scholarship/fellowship consideration.
- Please only apply for awards that you are eligible to receive, per the guidelines below.
- All awards are subject to funding; award amounts change annually. Final award packages/amounts will be noted on award letters to recipients.

#### 2015-2016 Doctoral Fellowship Information

The following awards are only available to doctoral students who are already admitted to, and successfully matriculating in, the Graduate College.

#### **The Barrick Graduate Fellowship (up to \$15,000)**

Barrick Graduate Fellowships were established by an endowment from philanthropist Marjorie Barrick. These fellowships are given to outstanding doctoral students who have demonstrated excellence in scholarship during their graduate study at UNLV. These fellowship awards provide a \$15,000.00 stipend; full tuition and fees paid up to 9 credits per semester, full health insurance benefits, and a waiver of out-of-state tuition, if applicable.

Applicants must:

- Submit an application with all required supporting documents (see above) in AY by the deadline;
- be an admitted doctoral student and have completed at least 24 credits of doctoral study in their current degree program (at the end of fall 2015);
- have a minimum graduate GPA of 3.5;
- remain in good standing in their doctoral degree program and complete a minimum of 6 graduate credits in each semester of the fellowship year.

Criteria for selection will also include demonstrated excellence in research; finalists will be required to participate in a face-to-face interview with the awards committee.

#### **The Hermsen Fellowship (package worth up to \$20,000)**

The Hermsen Fellowship was established by a gift from Richard and Beverly Hermsen. This prestigious award is designated for outstanding doctoral students in the School of Life Sciences. The fellowship award covers tuition, fees, full health insurance benefits, and provides a stipend each semester. Fellowship recipients will also receive a waiver of out-of-state tuition during the fellowship year, if applicable.

Applicants must:

- Submit an application with all required supporting documents (see above) in AY by the deadline;
- be admitted to the Biological Sciences (PHD) degree program;
- be in their final year, or so, as a doctoral student during the fellowship;
- have a minimum graduate GPA of 3.5;
- remain in good standing in the Biological Sciences (PHD) degree program and complete a minimum of 6 graduate credits in each semester of the fellowship year.
- demonstrated excellence in research
- finalists will be required to participate in a face-to-face interview with the awards committee

#### **The President's UNLV Foundation Graduate Research Fellowship (package worth up to \$25,000)**

The President's UNLV Foundation Graduate Research Fellowships are funded by gifts to the UNLV Foundation by the Frank Koch Living Trust for the research support of doctoral students. The fellowship award covers tuition, fees, full health insurance benefits, and provides a stipend each semester. Fellowship recipients will receive a waiver of out-of-state tuition during the fellowship year, if applicable. Candidates must be nominated for this award by their department chair or graduate coordinator; each academic department may

nominate one candidate for this award.

Applicants must:

- Submit an application with all required supporting documents (see above) in AY by the deadline;
- be a doctoral student working primarily on their dissertation with a minimum graduate GPA of 3.5, though departments may nominate students with a lower overall graduate GPA if their doctoral program grades are higher;
- be nominated by their department chair or graduate coordinator;
- submit the contact information of the department chair or graduate coordinator (that nominated the student) as their recommendation provider;
- remain in good standing in their doctoral degree program and complete a minimum of 6 graduate credits in each semester of the fellowship year.

Letters of nomination should describe the nominee's academic accomplishments, dissertation topic, and the nature of the work the nominee would undertake during the fellowship year. Criteria for selection will also include demonstrated excellence in research; finalists will be required to participate in a face-to-face interview with the awards committee.

**The UNLV Foundation Board of Trustees Fellowship (package worth up to \$30,000 per year)**

The UNLV Foundation Board of Trustees Fellowship is made possible by funds from the UNLV Foundation. This prestigious award is granted over four semesters (fall 2015, spring 2016, fall 2016, and spring 2017) to doctoral students in the final two years of their program. The fellowship award covers tuition, fees, full health insurance benefits, and provides a stipend each semester. Fellowship recipients will receive a waiver of out-of-state tuition during the fellowship year, if applicable. Students selected for the fellowship must agree to participate in a limited number of UNLV Foundation events during the period they receive the fellowship.

Applicants must:

- Submit an application with all required supporting documents (see above) in AY by the deadline;
- be a doctoral student in the final two years of their doctoral program during the fellowship;
- have a graduate GPA of 3.75;
- submit their dissertation committee chair as the recommendation provider;
- remain in good standing in their doctoral degree program and complete a minimum of 6 graduate credits in each semester of the fellowship year.

Letters of nomination should describe the nominee's academic accomplishments, dissertation topic, and the nature of the work the nominee would undertake during the fellowship years. Criteria for selection will also include demonstrated excellence in research; finalists will be required to participate in a face-to-face interview with the awards committee.

**UNLV Graduate College STEM Fellowship (package worth approximately \$20,000)**

The UNLV Graduate College STEM Fellowship is granted over four semesters (fall 2015, spring 2016, fall 2016, and spring 2017) to support newly admitted doctoral students in the fields of Science, Technology, Engineering, Mathematics, and Health Sciences. The fellowship award covers partial tuition up to 9 credits, partial health insurance waiver for the university student health insurance plan, and provides a stipend each semester. Fellowship recipients will receive a waiver of out-of-state tuition during the fellowship year, if applicable. Awardees enrolling in summer credits will be provided tuition benefits to support summer study. Students selected for the fellowship may be asked to participate in no more than four (4) campus events, receptions, or similar occasions each academic year, in support of STEM and graduate education at UNLV.

Applications must:

- submit an application with all required supporting documents (see above) in AY by the deadline;
- be newly admitted to a doctoral degree seeking program within Science or

Engineering at the time the fellowship begins (fall 2015);

- have a graduate GPA of 3.0;
- have a FAFSA (Free Application for Federal Student Aid) on record with Financial Aid for the upcoming scholarship year by the deadline;
- remain in good standing in their doctoral degree program and enroll in and complete a minimum of 9 graduate credits toward their degree program in each semester of the fellowship year;
- maintain a graduate GPA of 3.0 or higher.

Criteria for selection will also include demonstrated excellence in research; finalists will be required to participate in a face-to-face interview with the awards committee.

#### 2015-2016 Graduate Scholarships

The following awards are only available to graduate students who met the specified criteria for each award, and who are already admitted to, and successfully matriculating in, the Graduate College.

#### **The Fred C. Albrecht Alumni Association Scholarship (up to \$1,500)**

Alumni Association Scholarships are awarded to outstanding master's and specialist students who received their bachelor's degree from UNLV.

Applicants must:

- Submit an application with all required supporting documents (see above) in AY by the deadline;
- be an admitted master's or specialist student;
- have completed at least 6 graduate credits in their current degree program (by the end of fall 2014) and 12 graduate credits (by the end of spring 2015);
- have minimum UNLV undergraduate and graduate GPAs of 3.5;
- hold an undergraduate degree from UNLV;
- remain in good standing in their degree program and complete a minimum of 6 graduate credits in each semester of the scholarship year.

Note: students are eligible to receive this award for a maximum of 4 semesters, or two academic years.

#### **The Donna Weistrop and David B. Shaffer Scholarship ( up to \$750-\$1,000)**

The Donna Weistrop and David B. Shaffer Scholarship was established by an endowment from Donna Weistrop and David B. Shaffer. This award is designated for students pursuing a graduate degree in Physics, Astronomy, Chemistry, or Geoscience. Preference will be given to students in Physics or Astronomy degree programs.

Applicants must:

- Submit an application with all required supporting documents in AY (see above) by the deadline;
- must be admitted into a Physics, Astronomy, Chemistry, or Geoscience graduate degree;
- have a minimum graduate GPA of 3.25;
- remain in good standing in their degree program and complete a minimum of 6 graduate credits in each semester of the scholarship year;

#### **The James F. Adams/GPSA Scholarship (up to \$1,000)**

The UNLV Graduate & Professional Student Association established these scholarships in honor of Dr. James F. Adams, former dean of the Graduate College (1980-85), to recognize academic achievement of master's and specialist students.

Applicants must:

- Submit an application with all required supporting documents (see above) in AY by the deadline;
- be a master's or specialist student;
- have completed at least 6 graduate credits in their current degree program (by the end of fall 2014) and 12 graduate credits (by the end of spring 2015);
- have a minimum graduate GPA of 3.5;
- remain in good standing in their degree program and complete a minimum of 6 graduate credits in each semester of the scholarship year.

**The McNair Post-Baccalaureate Scholarship (up to \$4,000.00)**

McNair Post-Baccalaureate Scholarships, administered by the Graduate College, are awarded in open competition to first-year graduate students who participated in a McNair Scholars program at UNLV or at another institution as an undergraduate.

Applicants must:

- Submit an application with all required supporting documents in AY (see above) by the deadline;
- have a minimum undergraduate GPA of 3.0 and be admitted to a graduate degree seeking program at the time the scholarship begins (fall 2015);
- upload a certification of McNair program participation letter;
- remain in good standing in their degree program and complete a minimum of 6 graduate credits in each semester of the scholarship year.

**The Patricia Sastaunik Scholarship (up to \$2,500)**

These awards are granted primarily on the basis of documented financial need as evidenced by a student's FAFSA application and review by the UNLV Office of Financial Aid.

Applicants must:

Submit an application with all required supporting documents in AY (see above) by the deadline;

- have a FAFSA (Free Application for Federal Student Aid) on record with Financial Aid for the upcoming scholarship year by the deadline;
- have a minimum graduate GPA of 3.5;
- have completed a minimum of 6 graduate credits in their current degree program (by the end of fall 2014);
- remain in good standing in their degree program and complete a minimum of 6 graduate credits in each semester of the scholarship year.

**The Sterling Scholarship (up to \$5,000)**

This prestigious Alumni Association award is designated for UNLV graduates who are now admitted to and enrolled in a doctoral degree program.

Applicants must:

- Submit an application with all required supporting documents in AY (see above) by the deadline;
- be in good standing with full graduate status;
- be pursuing a doctoral degree and must have completed at least one year of their degree program before the scholarship begins (fall 2015);
- have a minimum graduate GPA of 3.5;
- have graduated with either a bachelor's or master's degree from UNLV;
- remain in good standing in their degree program and complete a minimum of 6 graduate credits in each semester of the scholarship year.

**The Summer Session Scholarship (up to \$2,000)**

Summer Session Scholarships are designed to enable summer study for doctoral students, however excellent master's and specialist students may be considered.

Applicants must:

- Submit an application with all required supporting documents in AY (see above) by the deadline;
- have completed at least 12 graduate credits in their current degree program (at the end of fall 2014);
- have a minimum graduate GPA of 3.0;
- remain in good standing in their degree program and complete a minimum of 6 graduate credits in any one or combination of summer sessions in 2016.

Criteria for selection will include summer plans for conducting dissertation or thesis research, as described in your statement of purpose.



### **The UNLV Graduate Access Childcare Scholarship (Variable: \$150 - \$2,500 depending on documented need and childcare expenses)**

The Graduate College is pleased to announce that we will be continuing our Graduate Student Access Childcare Scholarship program for academic year 2015-2016 in an effort to offer competitive, need-based scholarship funding to admitted/enrolled graduate students with young dependents who have already submitted their FAFSA (Free Application for Federal Student Aid) to Student Financial Services and have documented financial need. This scholarship is available on a highly competitive basis to graduate students with child dependents who pay for professional daycare or childcare in order to attend graduate school and pursue their graduate research.

Applicants must:

- Submit an application with all required supporting documents in AY (see above) by the deadline;
- have a FAFSA (Free Application for Federal Student Aid) on record with Financial Aid for the upcoming scholarship year by the deadline (International Students must submit FAFSA);
- be admitted to a graduate degree seeking program;
- have a minimum graduate GPA of at least 3.3;
- submit documentation that provides a Tax ID # for the childcare provider(s) and receipts showing the cost of childcare during academic semesters;
- upload your completed Childcare Information sheet (DOCX) with your application;
- remain in good standing in their degree program and complete a minimum of 6 graduate credits in each semester of the scholarship year to be awarded their full scholarship award.

Those who have all the proper documentation submitted by the deadline will be considered for a Childcare Scholarship; available childcare scholarship monies will then be distributed

competitively based on financial need, childcare expenses, and graduate student GPA.

## **Employment**

### **On-Campus Employment**

Several campus departments and offices employ students in a variety of positions. These jobs can be viewed on the Career Services website, or on the Financial Aid and Scholarships website. On-campus employment listings are available to graduate students enrolled in at least five credits at UNLV. Financial need is not a criterion for on-campus employment.

### **Job Location and Development**

Employment opportunities are offered to UNLV students by community businesses and individuals. These jobs can be viewed on the Financial Aid and Scholarships website or the Career Services website.

In addition to job listings, the JLD Program sponsors biannual Job Fairs where employers from businesses, government agencies, and hospitals, to name a few, come to campus to discuss part-time employment opportunities.

### **Federal Work Study**

The Federal Work Study Program is a federally funded financial aid program awarded as part of the financial aid package. This program enables students to earn a portion of their college expenses through employment with a UNLV department or office or off campus with contracted nonprofit agencies. Community service is a major goal of this program. If available, students may choose jobs related to their academic majors and career objectives. Work hours may also be arranged according to class schedules.

To qualify for a Federal Work Study job, applicants must meet the eligibility requirements of the federal financial aid programs. One requirement, financial need, is determined by Student Financial Services and based on income and asset information entered on the Free Application for Federal Student Aid (FAFSA) application.

Funds are limited. Therefore, applicants must mail the completed FAFSA application to the federal processing center by February 1. Questions concerning the eligibility requirements or application process may be directed to Student Financial Services, second floor, Student Services Complex.

## **Degree Progression Policies & Procedures**

Students should be aware of the Graduate Study Timeline available on the Graduate College website.

Degree requirements are usually completed under the policies and regulations listed in the Graduate Catalog in effect at the time of admission. However, and with departmental and Graduate College approval, the Graduate Catalog in effect during the semester in which degree requirements are completed may be used.

All students seeking an advanced degree must adhere to the regulations discussed in this section. With Graduate College approval, departments may have additional specific degree requirements that students must meet to receive an advanced degree.

### **Forms**

All students are responsible for submitting the proper forms to the Graduate College as he or she progresses through their degree program. Failure to do so may cause a delay in the student's graduation.

### **The Advisor**

Students are assigned an advisor by their graduate program at the time of admission into the Graduate College. The advisor is typically selected by the department from among its Graduate Faculty; after which, if required by degree program, it is the responsibility of the student to personally select an advisor to serve as chair of his or her advisory committee, and other graduate faculty to fulfill the other required roles on a graduate advisory committee. At any time after admission, a student may request (using a Change of Advisory Committee form) a change of advisor and/or change of advisory committee members, and upon departmental recommendation and Graduate College approval, the advisory committee will be changed.

The Graduate Advisory Committee is responsible for guiding the student through the graduate program, assisting the student with her/his professional paper, thesis, or dissertation, and administering the final

examination. Not all graduate degree programs require the appointment of an advisory committee. Students should consult with their advisor to determine whether or not an advisory committee is necessary, however all students completing a thesis or dissertation must convene a proper Graduate Advisory Committee. All departmental members of the committee should have expertise in the student's research area. Generally, four graduate faculty members comprise an advisory committee: three from the student's department (the chair must have full graduate faculty status in the student's home department; the other two committee members may have either associate or full graduate faculty status in the student's home department) and one professor who has full graduate faculty status from another department to serve as the Graduate College representative. The Graduate College representative is a neutral, outside faculty member with full graduate faculty status who participates on the committee to ensure that all Graduate College policies are followed, to make sure that all milestones in the student's progression are met appropriately, and to witness rigor, quality, and fairness throughout the student's culminating experience process and defense. Note that with appropriate approval it is permissible for one or more additional graduate faculty members to be placed on the committee. Master's and doctoral students must submit the Appointment of Advisory Committee form to the Graduate College before establishing the degree program and before submitting their Prospectus Approval forms. The Graduate College must approve the Graduate College representative, and all advisory committee members on the Appointment of Advisory Committee form, before students proceed to work with their advisory committee, sit for exams, defend a prospectus, or otherwise participate in any milestone event involving their advisory committee. If a student needs to make changes to his/her advisory committee after submission of the Appointment form, they may do so with the Change of Advisory Committee form. Students have a right to change their committees as they see fit, however all ethical and professional rules and guidelines governing research data, creative activities, funded projects, must be considered and followed. Also, please note that when a student requests a change of advisory committee immediately after a failed exam

or defense, and prior to the retaking of said exam or defense, the department and/or Dean may not allow the committee change until the current milestone exam or defense is completed.

## **Graduate Committee Composition: Additional Committee Members**

When a student constitutes a graduate committee containing a chair, plus 2 graduate faculty from their department as committee members, plus the required Graduate College representative (who must have full graduate status in a department outside the student's own), and then adds an additional committee member from outside their department, that additional member does not need to establish graduate faculty status in the student's own department in order to serve in this capacity (as a co-chair or additional committee member). However, if the student's core committee of three (excluding the Graduate College representative) includes a faculty member from another department, that person must establish the appropriate graduate faculty status --- full to chair, associate to serve as a member --- in the student's home department.

## **The Role of the Graduate College Representative**

The Graduate College Representative (GCR) has a major responsibility relative to project quality control and also to academic integrity. The GCR serves to: 1) uphold UNLV and Graduate School policies and procedures; 2) impartially observe both student and graduate faculty serving on the committee to help ensure fairness of process and appropriate interactions; and 3) uphold a standard of quality minimally consistent with that of the associated department based on prior experience, review of other final documents, and/or input from department members. If the GCR happens to also have expertise in a particular area that is explicitly related to the student's thesis or dissertation, the GCR may also participate in the scholarly assessment of the quality and content of the final document, but this is not required of a GCR.

The GCR serves an extremely important role in that he or she is the voice of the Graduate College on students' committees. It is incumbent upon the GCR to be well versed in the policies and procedures of the Graduate College and to uphold the same. In the case of a committee conflict or policy/procedural violation, the GCR must bring this issue to bear. If the issue(s) of concern cannot be resolved at the local (Department/School) level, it is the GCR who must report such a violation to the Dean or Associate Dean of the Graduate College in an expeditious manner. It is also suggested that the GCR take an active role in assuring basic quality control in that the research/scholarly project as defined is worthy of the associated degree being granted. This can become challenging if the GCR has little knowledge in the content area or if the GCR has not served on a committee in the student's academic unit in the past. Even with a lack of content knowledge, the GCR can appropriately uphold her/his responsibilities by asking appropriate, probing questions, and carefully reading written materials. The GCR may ask how similar or different the proposed work is to that which has preceded the student. Other appropriate questions include possible recourse the student might have if certain parameters of the work are not attainable ( i.e., unable to achieve proposed sample size, change in status of agreement for services provided by an outside agency). If issues of quality remain, it could be the GCR's responsibility to communicate such concerns to the Department/School graduate coordinator and chair, and to the Dean or Associate Dean of the Graduate College. Note that quality control includes the quality of writing in the final document, it's presentation in an appropriate format, adherence to prevailing professional standards for citations, documentation of appropriate IRB/Human Subjects approvals, methodological rigor, and upholding all standards of ethical research.

The MyUNLV Academic Requirements Degree Audit Report produces an automated report that matches courses taken at UNLV or transferred from other institutions with the requirements of a particular degree program. It helps students and staff:

- Identify degree requirements
- Plan future course work

- Determine how completed UNLV courses, courses in progress, and transfer courses may apply toward a degree

The MyUNLV Academic Requirements Degree Audit Report is an internal UNLV document used primarily for advising and graduation certification and is NOT an official document. The official documentation of your academic record is your transcript.

Students who are not yet in MyUNLV Degree Audit (to ascertain this, please check with your Graduate Coordinator or the Graduate College), must prepare a proposed graduate degree program, with input and guidance from their advisor and advisory committee. This degree program, which outlines the courses the student will complete for the degree, should be thoughtfully prepared. The degree program of study must comply with the regulations of the graduate program or department, the Graduate College and the guidelines in the Graduate Catalog for the year in which the student was admitted. The degree program forms (Part A provided by the Graduate College, Part B is provided by the academic department) requires the approvals of the student, advisor, the graduate coordinator, the appropriate academic dean, and the Graduate Dean, and both parts of the form must be submitted at the same time, prior to applying for graduation.

The most important component of graduate education is the student's culminating experience. All graduate programs require a culminating experience of some type. This generally takes the form a thesis, a dissertation, a final scholarly research project, a professional paper, a course, a performance, an exam, and/or an oral defense. The culminating experience demonstrates the student's mastery of their research, scholarship, creative abilities, and/or written and oral communication skills in the chosen discipline. The final document is intended to benefit the student, contribute to the academic discipline or profession, and often they are of significance to the broader society. Students required to complete and defend a final research or creative document must submit the Prospectus Approval Form to the Graduate College along with a brief written statement describing the content of the document prior to beginning work on their thesis or dissertation. Students must complete

the research that is described in the written statement submitted to the Graduate College. If the nature of the research deviates from the written description submitted to the Graduate College then a new prospectus defense must be held and a new prospectus approval form must be submitted along with a brief written statement describing the new research. Students may not enroll in dissertation credits until they have completed all required coursework and exams, and submitted their signed Prospectus Approval form (with abstract) and their Advancement to Candidacy form to the Graduate College.

Final documents, including theses, dissertations, professional or scholarly papers, and projects must meet acceptable standards of the given profession. Theses and dissertations must also meet Graduate College standards according to The Guide to Preparing & Submitting a Thesis or Dissertation. The Graduate College and advisory committees expect students to give careful attention to the style and format of the final scholarly or creative documents.

Students should contact the department to determine which document and which forms are required to complete their degree program. Students must maintain continuous enrollment (a minimum of 6 graduate level credits in any three consecutive semesters including summer) while working on their degree and final document, and students be enrolled in a minimum of 3 graduate-level credits in the semester in which they graduate, even if they have already completed all the required degree credits.

### **Thesis and Dissertation**

Some departments require a thesis, or offer the option of a thesis, for the master's degree. All research doctoral programs require a dissertation. Students must submit the Prospectus Approval form to the Graduate College at the same time the degree program is submitted for master's students and to advance to candidacy for doctoral students. The thesis or dissertation should demonstrate the student's ability to select a specific problem or topic, to assemble pertinent and necessary data, to do original research, to organize ideas and data acceptably, and

to prepare a written report in clear and effective English. The Guide to Preparing & Submitting a Thesis or Dissertation is available on the Graduate College website. Students must follow the instructions in the guide. Matters of form with respect to capitalization, abbreviation, quotations, footnotes and bibliography should conform to the discipline's standards. Departments will advise the student on which style manual is appropriate.

The minimum number of thesis credits required for a master's degree program is six. For the doctoral degree program, the minimum number of dissertation credits required is twelve. A grade is not reported for thesis or dissertation credits. When the final copy of the thesis/dissertation is submitted electronically to the Graduate College and approved by the Graduate Dean, the title of the thesis/dissertation is posted on the student's transcript with the number of credits earned. Unless approved for a leave of absence, a student must register for a minimum of three thesis/dissertation or non-thesis/dissertation credits each semester (summer excluded) until the thesis or dissertation is completed, submitted to the Graduate College, and the student graduates. However, students intending to complete, defend, submit a thesis or dissertation to the Graduate College, and/or graduate during the summer term, must be registered for a minimum of three credits. It is strongly suggested that no later than eight weeks prior to the last day of instruction in the term the student will graduate, a draft of the work should be submitted to the advisory committee. The committee will review the thesis or dissertation for any corrections and changes, which must be incorporated before the final examination (oral defense) and submission of the final document to the Graduate College. The completed, unbound work must be resubmitted to the committee at least two weeks prior to the final examination.

After the successful defense, the final document (incorporating all changes and formatted appropriately) must be submitted to the Graduate College. Instructions on how to submit your document for format check can be found on the thesis and dissertation format and submission guidelines page. The Graduate College must approve all theses and dissertations prior to final electronic submission.

Both the student and their committee must review and approve your document and style and formatting prior to submitting your final document to the Graduate College for final format check. Upon approval, the Graduate College will provide the student with a final electronic version of their document. The thesis or dissertation must be submitted electronically to ProQuest by the posted date each semester, which is generally not later than two weeks prior to the end of instruction of the term the student intends to graduate. All members of the advisory committee must approve the thesis or dissertation for submission to the Graduate College. Only the Graduate Dean may give permission for an extension of this deadline.

In rare circumstances a student may be permitted to complete the thesis or dissertation away from campus. After considerable progress has been made in collecting data and outlining the work, the student may petition to complete the thesis or dissertation in absentia, waiving the on-campus requirement. If the petition is approved, the advisor and Graduate Dean along with the student will determine the requirements for completion of the work.

### **The Multiple Article Dissertation**

The multiple article dissertation must include a minimum of three under-review, in-press, or published articles reporting on research or scholarship undertaken as a doctoral student at UNLV (prior research, scholarship, creative activity, articles or publications may not be used in a UNLV dissertation). In addition to the article, this format requires an introductory chapter, a concluding chapter, and bridge sections introducing and linking each of the articles to form a cohesive document.

The multiple article dissertation format is not, by default, an option for all programs. The degree-granting department must indicate in their program Handbook whether that the multiple article dissertation format is an acceptable option; a list of departments allowing this option is available [here](#) (link). The department may impose more stringent requirements than those delineated in this document. Additional requirements must be described in the program handbook. If this format is an option provided by the department, the student and their

committee may then decide whether or not to use a multiple article dissertation format, and indicate the intended dissertation type at the time of the dissertation proposal. In this model an under-review, in-press, or published manuscript serves as a chapter within the larger dissertation. If the committee and department accept this dissertation format, the dissertation must adhere to Graduate College guidelines pertaining to this type of dissertation.

The multiple article dissertation must have a general introductory chapter that provides an introduction to the student's topic, a review of the relevant literature and presentation of research questions. Each article chapter must include a contextual explanation of the significance of the article chapter ahead as a "bridge" at the beginning of the chapter, to link it to the broader study of which the chapter is a part. This format must also include a concluding chapter that puts the multiple papers in a broader context and explain their significance to the field, as well as offer suggestions for future research. These introductory and concluding chapters ensure that the multiple papers have a general coherence and constitute a singular whole that is greater than the sum of its parts.

All dissertations must adhere to Graduate College formatting and stylistic guidelines (e.g., acceptable font, use of headings, margins, spacing, tables, appendices, page numbers, etc.), regardless of whether they are presented in a traditional format or a multiple (3 or more) article format. The multiple article dissertation must have a general abstract; whether abstracts are included for respective chapters is at the discretion of the committee and department. References may be presented at the end of individual chapters, or in a single references section at the end of the dissertation. Acknowledgements should be given not at the end of each chapter but in one place for the dissertation as a whole; proper placement is outlined in the Graduate College formatting guidelines. Appendices should be given near the end of the entire dissertation, as outlined in the Graduate College formatting guidelines, rather than at the conclusion of individual chapters. Article chapters must be included in the appropriate Graduate College format, consistent with the Introduction and Conclusion chapters. Students may not simply "add

in" a journal article reprint to serve as a dissertation chapter.

For multiple article dissertation chapters that are published or in press, the student must secure the appropriate copyright from the publisher to include the chapter contents in the dissertation. These must be included in an appropriate Appendix per Graduate College formatting guidelines.

For coauthored chapters used in multiple article dissertations, the student must obtain written permission from coauthors to include the chapters in the dissertation. Coauthor approvals should be noted in the dissertation, either in the general Introduction or in introductions to respective coauthored chapters, and written permission should be included in a separate Appendix.

For coauthored chapters in multiple article dissertations, the student must have made a substantial and documented contribution to the work in order to include it in the dissertation. In practice, this may be acknowledged by the student being the lead author on a manuscript. If not the first author on an article, the student should have made substantial contributions to the research design, execution of the study, analyses, and/or write-up and these must be documented, as well as reviewed and approved by the student's committee. Quantifying the requirements of "substantial" can be challenging, with best practices in leading peer-reviewed journals (such as PLoS ONE, Nature) offering guidelines for determining sufficient contribution for journal publication authorship, and in turn for inclusion in a dissertation. A student's contribution in coauthored chapters should be noted and clearly explained either in the general Introduction or in Introductions to respective coauthored chapters.

### **Professional or Scholarly Papers or Projects**

Master's students not pursuing a thesis option may be required to complete a professional/scholarly paper or project as part of the degree program. Students are encouraged to use The Guide to Preparing & Submitting a Thesis or Dissertation available on the Graduate College website when preparing a professional paper. Professional/scholarly papers or projects are not, however, reviewed, retained, or

approved by the Graduate College. Some graduate programs require students doing a professional paper to have a graduate committee and to defend their work; other departments incorporate final papers into culminating experience courses or have other requirements. Please check with your department and the program information herein for detailed guidelines.

## **Doctoral Dissertation Defense Announcements**

Doctoral dissertations must be announced to the campus via the UNLV Master calendar first, and then submitted to the Graduate College via email to [grad.td@unlv.edu](mailto:grad.td@unlv.edu), a minimum of 2 weeks prior to the scheduled event. The reporting form is available on the Graduate College website. In addition, students are encouraged to publicize their defense in their department, and in relevant campus and community groups.

There are three major examinations which students may be required to pass in order to complete a graduate program. The following descriptions are general and may be used interchangeably by departments or programs. For the application of these terms and their use by a particular department or graduate program, refer to the appropriate section of this catalog.

### **Qualifying Examinations**

Some departments require doctoral students to take one or more qualifying examinations as part of the admission screening process or for diagnostic purposes shortly after admission. The examination may be written, oral, or both. Written department guidelines determine who prepares the exam(s), who reviews and scores the exam(s), the timetable on which the exams are given, and the consequences for failing to pass one or more qualifying exams.

### **Comprehensive and Final Examinations**

Most graduate degree programs require students to successfully complete one or more comprehensive or final examinations. For master's students, the comprehensive, or final, examination is generally conducted during the last semester or term of

enrollment in which a student intends to graduate. For doctoral students, the comprehensive, or preliminary, examinations are generally taken after all course work, other than dissertation credits, has been completed and always before advancing to candidacy. The examination is intended to test the student's knowledge of an area of specialization and may be written, oral, or both at the discretion of the department. Written department guidelines determine who prepares the exam(s), who reviews and scores the exam(s), the timetable on which the exams are given, and the consequences for failing to pass one or more qualifying exams.

The comprehensive, final, or preliminary examination must be administered at least three weeks before the last day of instruction of any given semester or term. Students must be enrolled for at least one graduate-level credit during the semester or term the comprehensive or preliminary examination is taken. For comprehensive and final examination requirements, contact the department or refer to the appropriate section of this catalog. In the examination, the student must be able to demonstrate a comprehensive understanding of a broad field of study and a detailed understanding of one or more specialized fields of expertise. Generally, the advisory committee must unanimously pass the student. If the committee votes unanimously to fail the student or the vote is not unanimous to pass, the student, in consultation with his/her advisor, may request the committee to administer a second examination, depending on departmental policies and guidelines. Generally, depending on department rules, two failures of required exams leads to separating the student from the program for failure to progress.

### **Oral Defense**

Graduate students completing a thesis or dissertation are required to demonstrate their ability to select a specific problem or topic, to assemble pertinent and necessary data, to do original research, to organize ideas and data acceptably, and to prepare a written report in clear and effective English. This demonstration takes the form of an oral defense of the finished document. For some master's and specialist students, completing a



professional/scholarly paper or project an oral defense may be required. All members of the advisory committee must be present and may question the student.

The oral defense must be held at least three weeks before the last day of instruction in the term in which the student plans to complete the degree requirements. Students must be enrolled during the term the oral defense is conducted.

Satisfactory performance on a final examination will consist of a presentation and defense of the student's original thesis or dissertation research. At a minimum, the defense consists of an oral presentation open to university graduate faculty, staff, students, and the community, followed immediately by a closed deliberation and vote by the advisory committee. More specifically, the oral presentation will be open to UNLV Graduate Faculty, graduate students, relevant administrators, and invited guests.

The oral presentation may be followed by general questions of clarification from attendees (other than the advisory committee members). The advisory committee and chair may choose to include a session of more in-depth questioning open only to the advisory committee and the UNLV Graduate Faculty. An additional phase of questioning with only the advisory committee and candidate may also be included. The final phase of closed deliberation, and the vote to pass or fail the student, will only be open to the student's appointed advisory committee, after which the student will be immediately informed of the committee's decision.

During the oral defense, the student must be able to demonstrate a comprehensive understanding of a broad field of study and a detailed understanding of a more limited field. The advisory committee must unanimously pass the student. If the committee votes unanimously to pass or fail the student, that vote is final. If the advisory committee vote is not unanimous to pass or fail, the student, in consultation with his/ her advisor, may request the committee to administer a second examination. The student must wait at least three months before taking the second examination, during which time the department may require additional course work, substantial reworking of the thesis, dissertation, or professional/scholarly

paper or project, or whatever is believed necessary to prepare the student for a successful second examination. The Graduate College will not approve third examination requests.

The Graduate College designates the advancement to candidacy status for doctoral students only. Doctoral students are advanced to candidacy upon successful completion of all course work, passing all required qualifying, preliminary, and/or comprehensive exams, completing and successfully defending the dissertation prospectus, and submitting the appropriate Advancement to Candidacy form to the Graduate College. Doing so qualifies doctoral GAs for an enhanced GA stipend in subsequent semesters (by August 1st for fall stipends; by December 1st for spring stipends; and by May 1st for summer stipends).

### **Application for Graduation**

Students are responsible for applying for graduation by the semester deadline. Doing so triggers your graduate evaluator to review your file and make sure that everything is in order for you to graduate. The graduation application is submitted via MyUNLV. The application must be submitted by the deadline posted on the Graduate College website. Applications for graduation will not be processed unless all required forms and documents have been submitted to the Graduate College.

If students do not complete the degree requirements in the term anticipated, it is expected that they will do so in the next term. One rollover of the graduation application and fee is allowed to the next term (including summer). If the student does not graduate in the next term, a new application for graduation must be filed, and an additional graduation application fee will be charged. In addition, students must be enrolled in a minimum of 3 graduate-level credits during the term they apply for and expect to graduate, regardless if they have completed all their coursework.

### **Granting of Degrees**

Degrees are awarded three times a year in May, December, and August. Students must be enrolled in a minimum of 3 graduate-level credits during the term in which they graduate. When students apply for graduation, the Graduate College reviews the degree program and all degree requirements to ensure every Catalog requirement for the student's program has been successfully met and completed. The Graduate Dean certifies that students have met degree requirements, and a recommendation is forwarded to the Board of Regents. If any requirement has not been met, the degree will not be awarded. The degree will be revoked if it is awarded in error, or if it is later discovered that the degree requirements were not met, or if fraudulent claims are later discovered.

### **Commencement**

Students may not participate in commencement prior to completion of all degree program requirements. Commencement is held twice a year in May and December. August graduates may participate in the December commencement following the completion of degree requirements.

## **Academic Policies**

The policies and regulations of the graduate program or department, the Graduate College, the University of Nevada, Las Vegas, and the Board of Regents are subject to review and change. The Graduate College website contains up-to-date information on policies, procedures, deadlines, forms, and special programs and services. The Office of Student Conduct handles issue and questions related to the UNLV Student Conduct Code.

It is the responsibility of students to know and observe all regulations and procedures related to their graduate program, the Graduate College, the Nevada System of Higher Education, and UNLV. In no case will any regulations be waived or an exception granted based on a plea of ignorance, or contention that the graduate program, Graduate College, or university did not specifically and individually inform a student of the regulations or procedures. Questions regarding graduate-level study, graduate student policies, rights, responsibilities, and/or regulations and their interpretation should be addressed to the Graduate College.

Graduate students are also expected to comport themselves professionally and conform to the ethics, guidelines, policies, and standards of their discipline. Finally, graduate students must abide by the laws of the State of Nevada and the United States of America.

### **Academic Integrity**

All members of the UNLV community are dedicated to learning. The university and the Graduate College expect nothing less than a high level of scholarly integrity and academic honesty on the part of students, faculty, staff, and administrators.

Quality academic work requires honesty. The UNLV faculty and administration regard any attempt by a student to present as his or her own work that which he or she has not solely produced as a serious offense. Students are considered to have cheated, for example, if they copy the work of another; use unauthorized notes or other aids during an

examination; turn in a paper or an assignment written, in whole or in part, by someone else as their own. Students are guilty of plagiarism, intentional or not, if they copy material from books, magazines, or other sources without identifying and acknowledging the sources, or if they paraphrase ideas from such sources without acknowledging them. Students guilty of, or assisting others in, either cheating or plagiarism on an assignment, quiz, examination, or other scholarly endeavor may receive a grade of 'F' for the course involved, and may be suspended or removed from the program.

Additionally, UNLV has established policies regarding research misconduct among students, faculty and staff. Research misconduct pertains to commission of any of the following acts: falsification of data, improper assignment of authorship, claiming another person's work as one's own, unprofessional manipulation of experiments or of research procedures, or misappropriation of research funds. (Adapted from the 1994-95 Graduate Catalog Northern Illinois University).

All conduct code violations are handled by the Office of Student Conduct; academic appeals and requests for waivers of Graduate College policies are handled through the Graduate College. If a faculty member suspects that a graduate student may have committed academic dishonesty, or that s/he is otherwise in violation of the UNLV Student Conduct Code, the faculty member or administrator must contact the Office of Student Conduct to discuss the possibility of disciplinary review under procedures described in the Nevada System of Higher Education document Rules and Disciplinary Procedures for Members of the University Community. Academic penalties for academic dishonesty include, but are not limited to: assigning the graduate student a failing grade for the corresponding segment of the course or for the entire course; requiring the student to rewrite the corresponding sections of his/her research paper, professional paper, thesis or dissertation, or the document in full; failing the student on the exam in question; or recommending that the student is separated from her/his graduate program. Further disciplinary sanction options described in the Code include warning, probation, suspension, and expulsion or revocation of a degree if a degree has

been previously awarded. The Office of Student Conduct's final decision will be relayed to the student, their department, and the Graduate College. Please visit the Appeals and Procedures section for further information about Graduate College academic appeal guidelines and procedures.

If a graduate student fails to maintain the standards of academic or professional integrity expected as defined in writing by their discipline or program, the student's admission status in his or her program will be terminated. If any member of the university community is deemed guilty of academic dishonesty, action may be brought under T2-CH 6 of the Board of Regents Handbook. In addition, students who violate these standards will be subject to conduct sanctions, in accordance with the UNLV Student Conduct Code and Policies, in order to promote their own personal development, to protect the university community, and to maintain order and stability on campus.

## **Credit Requirements**

### **Residence Credit Requirement**

Resident credit means any graduate course that is satisfactorily completed at UNLV. Approved online study through UNLV or enrollment in another institution within the Nevada System of Higher Education does not constitute an interruption of resident credit.

A minimum of 2/3 of the total credits required to complete the master's, specialist, or doctoral degree, not including thesis, dissertation, or professional paper credits, must be earned at UNLV after admission to a graduate degree program.

### **Graduate Credit**

All courses numbered 500-799 are considered graduate-level.

- 500 level classes are generally seen as remedial graduate courses, and they may also be used for non-degree, non-credit bearing courses; these may be cross-listed with 300 or 400 level undergraduate

courses, with appropriate curricular review and approval

- 600 level classes are generally seen as lower level graduate coursework, and/or masters level course work; these may be cross-listed with 400 level undergraduate courses, with appropriate curricular review and approval
- 700 level classes are generally seen as advanced graduate coursework, and/or doctoral level course work; they may not be cross-listed with undergraduate courses

*Note: Any graduate courses that are approved to be cross-listed with an undergraduate section must have more advanced learning outcomes and additional requirements for students who enroll as graduate students.*

To determine which graduate-level courses will apply to a specific degree, the student must have them approved by his/her graduate department and the Graduate College. Prior to approval, there is no guarantee that a course will apply toward the degree. To be considered a graduate-level course, the instructor must be a member of the Graduate Faculty. The Graduate College requires a minimum of 50 percent of the degree program semester hours are 700-level courses excluding thesis, dissertation, or professional/scholarly paper. Individual departments may require more than the Graduate College minimum.

### **Credit Toward Degree**

Courses used to fulfill requirements for one degree generally may not be used toward another degree. No more than three credits of a student's degree program may consist of UNLV workshop, institute, and conference credits, and the student must have received a grade for these credits.

A course in which a grade of less than C was received will not be considered for use toward the degree. Departments may impose a higher grade standard. Experimental, experiential (life and work experiences), correspondence, and audited courses may not be applied toward the degree. In addition, courses numbered in the 100-499 series cannot be used for graduate credit.

Credit may be used toward the graduate degree for courses taken while an undergraduate at UNLV only if the course was reserved for graduate credit. See the Admissions section for this information.

### **Transfer Credit Policy**

Not more than one-third of a student's degree program (not including the thesis, dissertation, or professional/scholarly paper) may be transferred from another university at the time admission is granted, or subsequent to admission. For UNLV Non-Degree graduate students, a maximum of 15 graduate credits taken at UNLV may be applied toward a graduate degree program.

Once admitted to an advanced degree program, students must obtain prior written consent of the department and the Graduate Dean, by way of a Transfer Credit Request Form, to take course work elsewhere and use it in their UNLV graduate degree program.

The department chair, the graduate coordinator, the academic dean responsible for approving the student's degree program, and the Graduate Dean, must approve all graduate transfer credits. To be considered for use:

1. The work must have been taken at an appropriately accredited institution;
2. The course must be graded (it may not be pass/fail or S/U or S/F);
3. The work must have been completed with a grade of B or higher (B- is not acceptable);
4. Official transcripts covering the work must be sent directly from the issuing institution to the Graduate College; and
5. The work must be posted to the student's permanent academic record;
6. The course must be comparable in content, substance, and rigor to the coursework it is replacing in the student's UNLV graduate degree program;
7. Work that is used to fulfill requirements for another degree may not be used toward another degree.

Transfer credit is approved only when evidence exists that the work is certifiably graduate-level. The age of the transfer work under consideration, or the year

taken, may also be a factor in the decision as to whether or not the coursework is admissible into a graduate student's UNLV degree program. The student is responsible for providing evidence and documentation as required.

### **Definition of Full and Part-Time Students**

Graduate students enrolled in 9 or more credits are considered full-time. Graduate students enrolled in 8 or fewer credits are considered part time students; this excludes Graduate Assistants who are considered full time students when enrolled in 6 or more credits. For the purposes of Veterans, we consider graduate students enrolled in 5 credits half time.

### **Limitation on Credit Load**

The University considers a graduate student taking nine credits per semester as full-time (six credit hours if the student is a graduate assistant). Please note that the number of credits enrolled impacts financial aid. Contact the office of Financial Aid and Scholarships for further information.

Graduate students normally may not take more than 12 credit hours (10 if a graduate assistant) during the fall and spring terms. They may take no more than six credit hours in a single five-week Summer Term and earn no more than a total of 12 credits during the Summer Term (pre, post, and regular five-week sessions combined). Overload authorization forms are available on the Graduate College forms website. Petitions must be approved by the Graduate Dean prior to registration

### **Grade Point Average**

A candidate for an advanced degree must have a minimum Graduate Program Grade Point Average of 3.00 to be eligible to graduate. The Graduate Program GPA, computed by the Graduate College, includes all completed graduate course work accepted at admission and all subsequently approved course work that is being applied toward a degree. Please note that the Graduate Program GPA does not appear on a student's transcript; a student's Cumulative Graduate GPA is posted on her/his transcript and is calculated from all graduate level course work ever taken at UNLV.

The following symbols are used in reporting and recording graduate student grades:

A Superior (4.0)

B Passing (3.0)

C Average (2.0)

D Below Average (1.0)

F Failing

ADAudit (not graded, no credit toward GPA)

I Incomplete (expires after one year; if not grade is submitted in that timeframe, the 'I' will default to an 'F' grade)

S Satisfactory

X Hold: Grade is submitted upon completion of Thesis or Dissertation or Professional Paper

*Note:* Faculty members have the option of using plus (+) and minus (-) for grades of A, B, C, and D. Exception: A+ grades are not given. Please also note that at the graduate level, grades below a B are generally considered unacceptable. Graduate students must have a 3.0 GPA in order to qualify for graduation.

### *I or Incomplete Grade*

The following regulations apply to the 'I' or Incomplete grade:

1. The 'I' grade is used for content/lecture type courses (not thesis, dissertation, or professional paper credits) designed to be completed within one year in instances where the student has completed the majority of the semester course work, but is unable to complete all of the requirements with good cause. The professor is responsible for determining if the reason for non-completion is satisfactory, if an Incomplete grade is appropriate, and the terms of the Incomplete, including what the student needs to do to successfully complete the course requirements and earn a final grade.

2. An 'I' may only be given when a minor part of the course work remains incomplete, and the majority of the coursework has been completed with a cumulative average of 'B' or better.
3. Graduate students receiving an 'I' grade in 500, 600- or 700 level courses have one calendar year to complete all course requirements and remove the 'I' grade; however, the instructor may require that it be made up in less time. If course requirements are not completed within one year, the Registrar's Office will automatically record a grade of 'F'. Note that graduate students taking an "I" in an undergraduate class must complete the coursework within one semester or the "I" will default to an "F."

#### *S or F (Satisfactory or Failing) Grades*

The Satisfactory (S) or Failing (F) mark is used upon completion of the thesis, dissertation, professional paper or for noncredit or satisfactory/fail courses. Grade-point values are not assigned for S. Many graduate and professional schools may not accept satisfactory/fail credits, or accept them only if accompanied by written evaluations of the work accomplished in such courses that bear upon the field of specialization. Additional evidence such as GRE or other advanced test results may also be required. UNLV does not accept graduate courses graded satisfactory/fail for use in a degree program except for thesis, dissertation, or professional paper credits.

#### *Grading Policy*

All instructors are required to follow the "Minimum Criteria for Syllabi" established by the Faculty Senate and the Office of the Executive Vice President and Provost (see <http://www.unlv.edu/sites/default/files/24/Provost-SYLLABI-CONTENT-EVPP-Spring2014.pdf>). Included in the criteria is the "relative weight of assignments or description of rubric to be used in calculating semester grades." As such, instructors may not grade students according to any other rubric or criteria that are not contained in the syllabus.

## **Continuous Enrollment**

After admission to a graduate program, students must register for and complete a minimum of six hours of graduate credits in each rolling three semesters (including summer). Students working on a thesis or dissertation must register for three graduate credits each semester (excluding summer) until the document has been completed and has been given final approval. Students who have not registered for academic work within three rolling semesters (fall-spring-summer, spring-summer-fall, summer-fall-spring) will be separated from their program and must reapply for admission should they wish to continue. Exceptions to the above policy, as with a request for a leave of absence, are made only with the approval of the student's advisor, graduate coordinator, department chair, academic dean, and the Graduate Dean. Any student using the services of the academic staff or university facilities must be registered for the period during which the services are rendered or the facilities are used. Students must be registered in a minimum of 3 graduate credits during the semester they intend to graduate and/or take final, comprehensive, preliminary, examinations, defend a thesis or dissertation.

## **Six-Year and Eight-Year Policy**

**Master's Degree Students:** Masters degrees are designed to be 1-3 year courses of study. All master's degree requirements must be completed within six years. Course work completed more than six calendar years before the term in which all degree requirements are met may not be used in the degree program.

**Doctoral Degree Students:** Doctoral programs are generally 3-6 year courses of study. A student beginning a doctoral degree program and holding a master's degree in an appropriate field of study must complete all doctoral degree program requirements within six years. A student beginning a doctoral degree program without a master's degree (post-bachelors to doctoral track) must complete all requirements for the degree within eight years.

In special circumstances, the student's faculty advisory committee may recommend that the Graduate Dean extend these degree time limits. Each department may establish shorter periods of time to completion, contingent upon the approval of the Graduate Dean and inclusion in the appropriate degree program section of this catalog.

Students violating the six-year and eight-year policy, and/or the continuous enrollment policy, are no longer automatically eligible to complete their program under the requirements in place at the time of admission. This decision is left to the discretion of the department. Students are considered to be making satisfactory progress toward the degree as long as they are successfully completing six hours of graduate degree program credits per rolling three semesters (including summer), meeting their graduate program milestones, fulfilling degree requirements, progressing toward completion, and submitting all required paperwork in a timely manner. Students not meeting any of these requirements will be separated from the Graduate College.

## Records Retention

Electronic and paper student records must be securely maintained and FERPA protected for a minimum of 3 years post-graduation, or after the formal withdrawal or separation of a student from her/his graduate program.

- Permanent academic records in the form of a transcript are retained indefinitely.
- Applications for admission, transcripts from other institutions and military service records, for matriculated students, are retained for at least seven years after last attendance.
- Change of name forms are retained for one year.
- Admission materials for nonmatriculated students and/or students denied admission are retained for at least seven years.

**Retention of Records by Faculty:** All instructors are encouraged to retain records of completed course work and grades for a period of one calendar year from the date of the last day of the term/semester. Part-time, relocating, and retiring instructors should

provide these materials to their respective departments.

**Transcripts:** Current students may access their unofficial transcript in their MyUNLV Student Center. Official transcripts are copies of student academic records of all work attempted at UNLV and bear the seal of the university and a signature. Official transcripts may be requested via the online system. Transcripts of work from other institutions will not be issued.

## Leave of Absence

When necessary, a student may request approval for a leave of absence from a degree program. During the leave of absence, the student should remain in contact with the department about their return plans. If a student does not return by the end of her/his approved LOA, s/he must apply for an additional LOA using the form above or s/he will be separated from his/her graduate program. One year is the standard leave period; two years is the maximum allowable leave. Note that all degree requirements must be completed within the six- and/or eight-year degree completion policy as outlined above, regardless of an approved leave of absence.

## Probation and Separation

A student will be dismissed/separated from a graduate program for receiving two or more class grades of C+ or less or failure to progress in one's graduate program (as indicated by one or more of the following conditions: failure of required degree program exams, failure to submit required paperwork in a timely manner, failure to meet with advisor or advisory committee as required, failure to successfully complete required classes, failure to successfully defend a thesis or dissertation prospectus, or failure to meet published degree requirements or milestones as listed in this Graduate Catalog). Graduate students will also be separated for failure to meet UNLV continuous enrollment requirements and for inappropriate or unethical conduct as reflected in the UNLV Student Conduct code and adjudicated by the UNLV Student Conduct board review process.

For the purposes of evaluating student progression, UNLV considers student performance in individual graduate classes, timely and successful completion of required milestones, as well as degree GPA. Degree GPA is distinct from overall Graduate GPA insofar as it only includes those courses that are necessary to meet a student's current degree program requirements as published in the Graduate Catalog at the time of their admission or at the time of their graduation. The Graduate GPA included on UNLV Transcript is cumulative and includes all graduate and professional coursework ever taken at UNLV; as such, it is not necessarily an indicator of a student's degree GPA.

A student will be placed on probation, and then dismissed/separated from their program for failing to successfully meet the conditions of their probation by the deadline provided, if they fail to successfully progress in their degree program. Successful degree program progression is indicated by:

- failure to earn a minimum degree GPA of 3.0;
- unsatisfactory grades (including more than two incompletes, grades C or less, or repeated withdrawals from courses required for the degree program);
- failure to complete six (6) graduate credits per rolling three semesters (including summer) toward their program in order to meet UNLV enrollment requirements;
- failure to consult with their advisor when requested;
- failure to establish a graduate advisory committee when required;
- failure to consult with graduate advisory committee when requested;
- failure to develop and submit an official, approved degree program;
- failure to establish the groundwork for an acceptable thesis or dissertation, and successfully defend the prospectus;
- failure of required comprehensive and/or qualifying examinations;
- failure to meet a department milestone or to pass the culminating experience; and
- failure to successfully defend a thesis or dissertation.

- failure to meet approved requirements in their Department's Graduate Handbooks

The full Student Program Dismissal Procedures for the Graduate College can be found on the Graduate College Website.

A UNLV graduate student who has been separated for academic reasons is not eligible for admission or re-entry. The student must petition the Graduate College to be considered for academic reinstatement.

## **Administrative Drops and Classroom Conduct**

Failure to attend a course or to submit required work will result in a grade of F. The student who neglects a course is solely responsible for dropping the course or withdrawing from the university. However, an administrative drop may be initiated at the discretion of the instructor, who will record the circumstances. The approvals of the academic unit chair/director, and the dean of the college offering the course, are required

Students have a responsibility to conduct themselves in class and in the libraries in ways that do not interfere with the right of other students to learn or of instructors to teach. Use of electronic devices such as cellular phones, or recording devices, or other potentially disruptive activities, is permitted only with prior explicit consent of the instructor. The instructor may rescind permission anytime during the course. If a student does not comply with requirements, or obstructs the functioning of the class, the instructor may initiate an administrative drop

Serious cases of misconduct, as defined by the Rules and Disciplinary Procedures for Members of the University Community or the UNLV Student Conduct Code, will be referred to the appropriate administrative officer for action.

## **Change of Address and Use of Rebel Mail**

A change of address must be changed by the student through his or her MyUNLV account. Any correspondence from the university mailed to the last



address provided by the student to the Registrar and Graduate College will discharge all university responsibility for notification. Graduate students are required to set-up, use, and monitor their UNLV Rebel Mail email accounts. MyUNLV and Rebel Mail are the primary ways in which the Graduate College and other campus offices communicate important information to students. Any student wishing to email the Graduate College or any university staff must do so from a UNLV email account. In accordance with FERPA regulations, the Graduate College will not respond to student emails from non-UNLV accounts.

## Appeals and Procedures

Graduate academic appeals are used to request reconsideration a remedy from alleged unfair or inappropriate academic practice, or relief or waiver from a UNLV and/or Graduate College policy or requirement. Appeals must be filed with the Graduate College Office within 60 calendar days from the last day of the term/semester in which the issue being appealed arose. Each appeal is reviewed individually and a decision will be based on the merits and documentation provided.

For normal grade changes: the Registrar's Office must receive notification to change a grade due to clerical error within 60 calendar days from the last day of the term/semester. For grade changes after this deadline, please submit a complete and signed Graduate College academic appeal.

When submitting an academic appeal, it is the student's responsibility to provide a clear and concisely written statement explaining the reason for the appeal and the remedy being requested. The student must also provide all relevant documentation that s/he wishes to be reviewed and considered in the appeal decision. Academic appeals must include:

1. *UNLV Graduate College Appeal Form* as a cover sheet
2. Written Statement of Appeal addressed to the appropriate UNLV administrator
3. Relevant documentation and support. For example, documents may include medical records, work verification, police reports,

death certificates, airline receipts, letters from professors on university letterhead, transcripts, etc. If the issue is not resolved between the student and course instructor, a written appeal should first be directed to the Graduate Coordinator of the department in question. If the problem remains unresolved to the student's satisfaction, appeals must be directed in progressive order to the Department Graduate Coordinator, Department Chair, College Dean, then subsequently to the Graduate Dean. The Graduate Dean may act to resolve the problem or request the Graduate College Committee on Faculty and Student Issues to review the problem and make its recommendation to the Graduate Dean. The Graduate Dean will inform the student of the final decision.

4. Appropriate signatures, with optional rejoinders and relevant documentation attached, must be included on the Appeal. An academic appeal must be directed in progressive order to the Department Graduate Coordinator, Department Chair, College Dean, then subsequently to the Graduate Dean. Note that advisors and departments may have varying methods of processing appeals. Contact your department for specific policies and procedures. The Graduate Dean may render a decision, act to resolve the problem, or request that the Graduate College Appeals and Legal Issues Committee (which does not convene in summer) review the appeal and make a recommendation to the Graduate Dean. The Graduate Dean will render the final decision and move to inform the student in a timely manner. Generally, graduate academic appeals take from two weeks to several months to resolve, depending on the nature and complexity of the appeal.

Appeals regarding financial issues (e.g., tuition refund, tuition waiver, student fees, late fees, etc.) must be submitted separately to the UNLV Student Accounts Office, using their Tuition & Fee Appeal Form. If an appeal involves both an academic and financial issue, the student should submit an academic appeal first to the Graduate College and

wait for a decision before commencing with the financial appeal to the Student Accounts Office. For further information concerning the financial appeal process please refer to Cashiering and Student Accounts.

## **Waiver of Regulations**

The Graduate Dean will consider a student's written request for waiver of a regulation upon a written recommendation from the student's department and committee chair. The regulation in question must be specified and the reason for the exception clearly stated. The Graduate Dean will notify both the student and the department of the decision.

## **Policies and Procedures on the Protection of Research Subjects**

Human Subjects: Graduate students conducting research must adhere to UNLV policies and procedures regarding the use of human subjects. All research projects in which human subjects are involved must be reviewed and approved under the authority of the UNLV Institutional Review Board (IRB), which consists of two committees - Biomedical Sciences Committee and Social and Behavioral Sciences Committee. The IRB is responsible for the development and monitoring of university policy and procedures involving the use of human subjects in research.

The provision for the protection of human subjects in research applies to all studies in all locations, whether funded or unfunded, and whether conducted by faculty, students, or staff. It also applies to persons unaffiliated with UNLV, who wish to investigate subjects under the protection of the university. Students should contact the Office of Sponsored Programs to obtain appropriate forms and further information.

Animal Subjects: It is university policy that: 1) the proper care and management of laboratory animals is essential to the welfare of the animals, to the validity of research data, and to the health and safety of those caring for or using animals; and 2) the university will comply with federal and state regulations regarding animal welfare.

All animal protocols involving vertebrate animals (including farm animals and wild animals) conducted at, funded through or sponsored by UNLV must be submitted for prior Institutional Animal Care and Use Committee (IACUC) review and periodic review after approval in accordance with university policies and procedures that are required by federal law.

The provision for the protection of animal subjects in research applies to all studies in all locations, whether funded or unfunded, and whether conducted by faculty, students, or staff. It also applies to all studies in all locations, whether funded or unfunded, and whether conducted by faculty, students, or staff. It also applies to persons unaffiliated with UNLV, who wish to investigate subjects under the protection of the university. Students should contact the office of Sponsored Programs to obtain appropriate forms and further information.

## **UNLV Student Computer Use Policy**

Public computer laboratories and mainframe computers are provided as a service to students. Use is a privilege, not a right. Users should be good citizens; they must refrain from doing anything that annoys others or disrupts the educational experiences of their peers. Failure to comply with the regulations below may result in suspension under the NSHE Code, or civil or criminal action under the Nevada Revised Statutes, or federal law. It is a violation of UNLV policy to:

1. Copy any copyrighted software provided by UNLV. It is a criminal offense to copy any software protected by copyright, and UNLV will treat it as such.
2. Use licensed software in a manner inconsistent with the licensing arrangement. Information on licenses is available at the tutor stations or through NSHE Computing Services.
3. Copy, rename, alter, examine, or delete the files or programs of another person or UNLV without permission.
4. Use a computer to annoy others, including, but not limited to, sending offensive messages or knowingly causing a system to crash.

5. Create, disseminate or run a self-replicating program ("virus"), whether destructive in nature or not.
6. Use a computer for non-university work, such as for a private business or non-UNLV sanctioned club.
7. Tamper with switch settings or do anything that could damage terminals, computers, printers, or other equipment.
8. Collect, read, or destroy output other than your own work without the permission of the owner.
9. Use the computer account of another with or without permission unless it is designated group work.
10. Access or attempt to access a host computer, either at UNLV or through a network, without the owner's permission, and/or through use of log-in information belonging to another person.

## **Mandatory Graduate and Professional Student Health Insurance**

In May 2013, the Graduate & Professional Student Association (GPSA) passed a motion to recommend that all fully admitted graduate and professional students taking 9 credits or more per semester, and all graduate assistants, must have insurance coverage either through UNLV or their own carrier. In June 2013, the NSHE Board of Regents supported and approved this proposal. As a result, the mandatory hard waiver student health insurance policy is in effect immediately for the Fall 2013 semester.

Students who are admitted into a graduate or professional program and are enrolled in 9 credits (regardless of the course level) in a semester, and all graduate assistants, will be automatically billed for student health insurance. It is then incumbent upon those students who already have health insurance to complete the UNLV online waiver form to waive out of the UNLV student health insurance. Once approved, a health insurance waiver is good for one academic year.

For more information on Graduate Student Health Insurance fees, please refer to the Mandatory

Graduate & Professional Student Health Insurance section under Tuition & Fees .

## **Graduate Assistant Parental Leave Program Guidelines**

1. As used in this document, "parental leave" means leave with or without pay for childbirth or placement of a child for adoption or foster care. The Graduate College program will provide up to six weeks of paid GA leave (during the standard GA appointment period), and up to an additional six weeks of unpaid leave or a flexible GA work assignment.
2. Graduate Assistants (GA) will be provided guaranteed parental leave with pay of up to six weeks at the GA's discretion during a GA contract period, retaining their full stipends and benefits during the leave. If both parents are Graduate Assistants, the six week leave may be divided between them, as per their request. If needed, GAs may request up to six additional weeks of leave without pay or flexibility in duty assignments.
3. Departments, faculty, and graduate assistants should continue to work collegially to agree upon the details of the leave, recognizing that these may differ from case-to-case depending on the timing of the birth/adoption, individual student circumstances/preferences, and type of GA work assignment. Supervisors are expected to work with GAs requesting allowable leave to accommodate requests for alternative workload assignments, and/or flexible workload assignments, in a way that recognizes the special needs of, and potential benefits to, the GA. We encourage departments to support maximum GA utilization of the Parental Leave Program.
4. The Graduate College Parental Leave Form must be submitted at least eight weeks prior to the anticipated leave, or two weeks before the start of the semester, whichever is earlier. This form details the plan for the parental leave and departmental acceptance thereof, and must be signed by the graduate

student, graduate coordinator, department chair, College Dean (if required -- please check your College Dean's signature requirements here {link to webpage}), and the Dean of the Graduate College.

5. A graduate assistant whose request for a reasonable leave is not approved should consult first with his or her Graduate Coordinator or Department Chair, next with his or her college Dean, and last, if necessary, with the Graduate College. The Dean of the Graduate College will serve as the final arbiter to establish a workable leave plan.
6. If the GA's department does not urgently require a replacement GA during the 6-week leave period, the GA stipend/regular pay to the GA shall remain in place. However, if the department can demonstrate an urgent need to hire a substitute graduate student as a GA during the 6 week period (to cover undergraduate class(es), etc.), the GA on leave will have their pay suspended until they return and will be given a replacement scholarship/grant in the amount of the minimum GA stipend for this time period. Six week Parental Leave Grant Amounts are as follow: Masters \$1,700.00; Pre-ABD Doctoral \$2,200; Post-ABD Doctoral \$2,500. The substitute GA will receive the GA stipend for the 6 weeks (or less, if they so choose) that they are working as are placement GA.

### **Eligibility**

1. Generally, GAs must be appointed for at least one semester before the beginning of a leave request. If requesting summer leave, you must have been hired for the previous spring term and have a summer GA contract in place.
2. GAs applying for this leave program must be in good academic standing and continue to be enrolled in classes during the leave period to meet the continuous enrollment policy.

### **Important Points to Consider**

- Parental leave may be taken during the semester in which the child is born or adopted, or during the semester immediately following.
- Parental leave does not constitute a break in continuous enrollment. All GAs must maintain 6 graduate level credits each semester they are a GA, including when on approved parental leave; if a graduate student chooses unpaid leave via an approved leave of absence or medical leave, registration is not required.
- If you are supported by a research assistantship funded by external sources, such as grant funding, you must adhere to the rules of the granting agency in regard to leaves from work. If the granting agency defers to University policy regarding paid parental leave, the six-week leave will be paid by the grant. If the granting agency requires suspension of payment during the leave period, you may be eligible for substitute payment from this program. If the leave occurs at the end of the semester or at the end of a contract period, financial support will not be continued beyond the end of the contract.

### **Student Use of Hazardous Materials**

Certain courses may require students to work with potentially hazardous materials in the lab, darkroom, or workshop. Instructors will provide instructions regarding the safe handling of all materials. Questions should be directed to the specific academic department or instructor, and all such activities must comply with national, state, local, UNLV and Office of Risk Management guidelines and requirements.

## Disclosures

### Family Educational Rights and Privacy Act of 1974

UNLV is subject to FERPA, the Family Educational Rights and Privacy Act, which is a federal law that protects the privacy of student education records. The UNLV Office of the Registrar administers the University's FERPA policy, which is available at: <http://www.unlv.edu/registrar/ferpa>.

As a best practice, each student is encouraged to keep copies of all Department and Graduate College paperwork associated with his/her program. A student may request copies of his/her education records in accordance with the University's FERPA Policy.

### Annual Jeanne Clery Campus Safety and Security Report

In order to comply with provisions of "The Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act", reports from the University community and local law enforcement agencies are compiled and published annually by the Department of Public Safety. As law enforcement professionals tasked with the maintenance of a safe and secure educational environment, it is our responsibility to provide a comprehensive report regarding the campus public safety environment including the incidence of crime.

### Limitations

The 2013-2014 Graduate Catalog describes current academic programs of study, course descriptions and degree requirements at the graduate level for the academic year of 2013-14 at the University of Nevada, Las Vegas. The content of this catalog is current as of August 2013, but is subject to modification at any time to accommodate changes in university resources or educational plans.

This catalog does not constitute a contractual commitment that the university will offer all the courses or programs described, and the university

reserves the right to revise catalog provision and fees at any time in accordance with the actions of the president the Nevada System of Higher Education, or any other governing body.

The university reserves the right to eliminate, cancel, reduce in size or phase out courses, academic programs and/or limit enrollments in specific programs and courses, to change fees during the student's period of study, and to require a student to withdraw from the institution for cause at any time.

### Inquiries

Inquiries should be addressed to: Dean of the Graduate College, University of Nevada, Las Vegas, 4505 Maryland Parkway, Box 451017, Las Vegas, NV 89154-1017, (702) 895-3320, or call UNLV's main switchboard at (702) 895-3011. Visit the UNLV Web site at <http://www.unlv.edu>.

### Title IX Compliance

The Patsy T. Mink Equal Opportunity in Education Act, generally known as Title IX of the Education Amendments of 1972 is a federal law that prohibits sex discrimination in education. It reads:

"No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance." Legal Citation: Title IX of the Education Amendments of 1972, and its implementing regulation at 34 C.F.R. Part 106 (Title IX).

Often considered a law giving women equal opportunities in athletics, Title IX of the Education Amendments of 1972 (20 U.S.C. § 1681) is an all-encompassing federal mandate prohibiting discrimination based on the gender of students and employees of educational institutions receiving federal financial assistance. Sex discrimination includes sexual harassment and sexual violence. Educational institutions that receive federal financial assistance are covered by Title IX. If only one of the institution's programs or activities receives federal

funding, all of the programs within the institution must comply with Title IX regulations. In compliance with Title IX, the University of Nevada, Las Vegas prohibits discrimination in employment as well as in all programs and activities on the basis of sex.

### **Title IX Coordinators**

#### **Barret Morris**

*Director of Compliance*

*Title IX Coordinator*

*Email: [barrett.morris@unlv.edu](mailto:barrett.morris@unlv.edu)*

#### **Juanita Fain, Ph.D.**

*Title IX Deputy Coordinator*

Receives, investigates, and renders resolution for matters involving UNLV teaching and administrative faculty.

*Email: [juanita.fain@unlv.edu](mailto:juanita.fain@unlv.edu)*

#### **Phil Burns**

*Title IX Deputy Coordinator*

Receives, investigates, and renders resolution for complaints involving UNLV students.

*Email: [phillip.burns@unlv.edu](mailto:phillip.burns@unlv.edu)*

#### **Lisa Kelleher, Ph.D.**

*Title IX Deputy Coordinator*

Responsible for receiving and reporting complaints related to Title IX and gender equity in UNLV athletics programs.

*Email: [terri.clark@unlv.edu](mailto:terri.clark@unlv.edu)*

#### **Terri Clark, Ph.D.**

*Title IX Deputy Coordinator*

Responsible for receiving and reporting complaints related to Title IX and gender equity in UNLV athletics programs.

*Email: [lisa.kelleher@unlv.edu](mailto:lisa.kelleher@unlv.edu)*

#### **Eric Toliver**

*Title IX Deputy Coordinator*

Facilitates the handling of complaints involving a UNLV Athletics (student athlete, coach, administrator, or visitor) with the Title IX Coordinator.

*Email: [eric.toliver@unlv.edu](mailto:eric.toliver@unlv.edu)*

#### **Christopher A. Kypuros, Ph.D.**

*Title IX Deputy Coordinator*

Facilitates the handling of complaints involving

a UNLV Athletics (student athlete, coach, administrator, or visitor) with the Title IX Coordinator.

*Email: [eric.toliver@unlv.edu](mailto:eric.toliver@unlv.edu)*

### **Diversity at UNLV**

The University of Nevada, Las Vegas (UNLV), along with other research-intensive public universities in the United States, recognizes that a student body that is diverse with respect to race, ethnicity, socioeconomic class background, and geography among other dimensions of cultural difference, benefits and enriches the educational experiences of all students, Faculty and staff. Accordingly, UNLV strives to recruit students who will further enrich this diversity and to support their academic and personal success and while they are a part of our campus community. The presence and achievement of racial and ethnic minority students at UNLV not only benefits these students individually, but it also enhances the educational and interpersonal experiences of everyone in our campus community. UNLV actively encourages applicants whose racial and ethnic background is underrepresented in higher education in Nevada, who are first-generation college students, and who have demonstrated financial need.

The vision of the Office of Diversity Initiatives is to advocate, promote, and support the advancement of equity, inclusiveness, and empowerment of a continuously changing collegiate and global community.

### **Student Policies**

All graduate students at the University of Nevada, Las Vegas must adhere to the rules and regulations set forth by the Nevada System of Higher Education (NSHE) Board of Regents Handbook, UNLV Student Conduct Code, UNLV Graduate Catalog, and program of study student handbook. Students found in violation of any of the rules and regulations discussed above as well as the laws governing the State of Nevada and the United States of America are subject disciplinary action.

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# Academic Calendar

## 2015-2016 School Year

Stay up-to-date on UNLV events by subscribing to the UNLV academic and sports calendars. To add these calendars to your Google Calendar, do the following:

Sign into your Rebelmail account.

For each calendar that you wish to subscribe to, click on its calendar link below.

Your Google Calendar will open up in a new window or tab. Click Yes, add this calendar to add it to your Google Calendar.

### Fall Semester 2015

#### August

23 Instruction begins

#### September

7 Labor Day recess

#### October

17 Mid-Semester  
30 Nevada Day recess

#### November

11 Veterans Day recess  
26-27 Thanksgiving Day recess

#### December

5 Instruction ends  
8-12 Final examinations  
12 Semester ends  
15 December Commencement  
15 Grades Due

### Spring Semester 2016

#### January

18 Martin Luther King, Jr. Day recess  
19 Instruction begins

#### February

15 Washington's Birthday recess

#### March

12 Mid-semester  
21-26 Spring Break

#### May

7 Instruction Ends  
9-14 Final Examinations  
14 Semester ends  
TBA Commencement  
17 Grades Due

### Summer Session 2016 I

#### May

16 Instruction begins  
30 Memorial Day recess

#### June

3 Instruction ends  
7 Grades Due

### Summer Session 2016 II

#### June

6 Instruction begins

#### July

4 Independence Day recess  
8 Instruction ends  
12 Grades Due

### Summer Session 2016 III

#### July

11 Instruction begins

#### August

12 Instruction ends  
16 Grades Due

**\*Dates are subject to change**

**\*\*Observed Holidays were determined using the guidelines in NRS 263.015.**

# Program Accreditations

All programs at UNLV are accredited by the Northwest Commission on Colleges and Universities (NWCCU)

UNLV's international programs are approved by the Council on International Educational Exchange (CIEE)

For more accreditation information, visit the UNLV Program Accreditations' webpage.

Program	Accredited by
<b>Accounting</b>	The Association to Advance Collegiate Schools of Business (AACSB)
<b>Architecture</b>	National Architectural Accrediting Board (NAAB)
<b>Art</b>	National Association of Schools of Art and Design (NASAD)
<b>Athletic Training</b>	Commission on Accreditation of Athletic Training Education (CAATE)
<b>Business Administration</b>	The Association to Advance Collegiate Schools of Business (AACSB)
<b>Computer Science</b>	Accreditation Board for Engineering and Technology (ABET)

**Construction Management** American Council for Construction Education (ACCE)

**Didactic Program in Dietetics** Commission on Dietetic Registration (CDR)

**Dental Medicine** Commission on Dental Accreditation (CODA)

**Education** National Association of School Psychologists (NASP) Council for Accreditation of Counseling & Related Educational Programs (CACREP)

**Engineering** Accreditation Board for Engineering and Technology (ABET)

**Health Care Administration and Policy** Association of University Programs in Health Administration (AUPHA)

**Health Physics** Applied Science Accreditation Commission of the Accreditation Board for Engineering and Technology (ASAC ABET) Commission on Accreditation of Medical Physics Educational Programs (CAMPEP)

**Hospitality Management -** Professional Golf Association



<b>minor in Professional Golf Management</b>	(PGA)	<b>Psychology (Clinical)</b>	American Psychological Association (APA)
<b>Interior Architecture and Design</b>	Council for Interior Design Accreditation (CIDA)	<b>Public Administration</b>	National Association of Schools of Public Affairs and Association (NASPAA)
<b>Landscape Architecture</b>	Landscape Architects Accreditation Council (LAAB)	<b>Public Health</b>	Council on Education for Public Health (CEPH)
<b>Law</b>	American Bar Association (ABA) (member of AALS) Association of American Law Schools	<b>Radiography</b>	Committee on Education in Radiologic Technology (JRCERT)
<b>Marriage and Family Therapy</b>	Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE)	<b>Social Work</b>	Council on Social Work Education (CSWE)
<b>Music</b>	National Association of Schools of Music (NASM)	<b>Theatre</b>	National Association of Schools of Theatre (NAST)
<b>Nuclear Medicine</b>	Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT)		
<b>Nursing</b>	Commission on Collegiate Nursing Education (CCNE)		
<b>Physical Therapy</b>	Commission on Accreditation in Physical Therapy Education (CAPTE)		

## Lee Business School

The Lee Business School offers four graduate programs. The Master of Science in Accountancy (MSA) provides professional preparation for students wishing to pursue careers in taxation, public accounting, managerial or corporate accounting, and government. The MSA also provides the necessary course work for sitting for the CPA exam in Nevada and other 150-hour jurisdictions.

The Master of Science in Management Information Systems (MS MIS) prepares graduates for professional and managerial careers in information technology (IT). MIS students earn competency in IT, embedded in a business context that provides them with well-rounded preparation for occupations in high demand.

The M.A. in Economics focuses on applied and empirical economics and also provides students with a strong foundation for further graduate study at the Ph.D. level. The core of the program includes the basic theory of microeconomics, macroeconomics, as well as math for economists. To develop empirical skills, students must take two courses that use statistical analysis to examine interesting economic problems.

The largest graduate program in the college, the MBA, is designed to prepare the individual to meet the challenges of rapid change in business and in society through emphasis on managerial concepts and analytical reasoning. The particular focus on theory and practice produces special qualities in the UNLV MBA graduate. By studying managerial theory and economic principles, the student acquires the capacity for assuming responsibility in a wide variety of roles within an organization.

*Brent Hathaway, Ph.D., Dean, Lee Business School*  
*Keah-Choon Tan, Ph.D., CPIM, C.P.M., Interim Associate Dean for Academic Affairs*

## Accounting

The Master of Science in Accounting is designed to provide professional preparation at the graduate level for students wishing to pursue careers and advancement in taxation, public accounting, managerial or corporate accounting, and government. Our graduate courses help students extend and integrate their accounting knowledge by building on the knowledge received in undergraduate programs. The MS in Accounting also provides the necessary course work for sitting for the CPA exam in Nevada and other 150-hour jurisdictions.

Students may pursue either a full-time or part-time course of study to complete the 30-credit program. Students need not have an undergraduate degree in accounting or business. However, those without the undergraduate coursework on which the program builds will be required to complete those courses in addition to the 30-credit program.

Pursuing a career in accounting can provide a lifetime of professional opportunities. Earning your MS in Accounting is an investment in yourself and your future.

The A.A.C.S.B. - International Association for Management Education accredits the Master of Science in Accounting.

*Paulette R. Tandy, Chair*  
*Kimberly Charron, Graduate Coordinator*

## Accounting Faculty and Staff

### Department Chair

**Tandy, Paulette R.** - *Full Graduate Faculty*  
Associate Professor; B.S., Appalachian State University; MBA, Ph.D., Texas A&M; CPA, North Carolina. *Rebel since 1989.*

### Graduate Coordinator

**Charron, Kimberly** - *Full Graduate Faculty*  
Associate Professor; B.S., Ph.D., University of Arizona; CMA. *Rebel since 1997.*

### Faculty

**Cummings, Michael** – *Full Graduate Faculty*  
Assistant Professor; B.S., Utah Valley State; M.P.A., J.D. Brigham Young University; Ph.D. University of Minnesota. *Rebel since 2014*

**Dalton, Kenneth**– *Full Graduate Faculty*  
Assistant Professor; A.S., Coleman College; B.Acc., University of San Diego; Ph.D. University of Kansas; CPA, California; CISA. *Rebel since 2014*

### **Enlow, Ryan**

Associate Graduate Faculty Lecturer, B.S.B.A., M.S., University of Nevada Las Vegas. *Rebel since 2010.*

### **Hamilton, Erin** - *Full Graduate Faculty*

Assistant Professor; B.S., M.S., Kent State University; Ph. D., University of South Carolina; CPA, Ohio. *Rebel since 2013.*

### **Jones, Donald** - *Associate Graduate Faculty*

Lecturer; B.S.B.A., Bowling Green State University; J. D., University of Akron; LL.M., Georgetown University; CPA, Texas, Washington D.C. *Rebel since 2011.*

### **Messier, William F. Jr.** - *Full Graduate Faculty*

Professo; Kenneth and Tracy Knauss Endowed Chair in Accounting; B.B.A., Siena College; M.S., Clarkson University; M.B.A and D.B.A, Indiana University; CPA, Florida. *Rebel since 2008.*

**Moores, Charles T.** - *Full Graduate Faculty*  
Professor; B.S., University of Arkansas at Little Rock; M.S., Ph.D., Louisiana State University; CPA, Texas. *Rebel since 1989.*

**Perri, Tammy** - *Associate Graduate Faculty*  
Lecturer; B.S., Minnesota State University - Moorhead; M.S. University of Mary; CPA, North Dakota. *Rebel since 2014.*

**Raschke, Robyn** - *Full Graduate Faculty*  
Associate Professor; B.B.A, M.ACC., University of Georgia; Ph.D., Arizona State University; CPA, Georgia. *Rebel since 2007.*

**Saiewitz, Aaron** – *Full Graduate Faculty*  
Assistant Professor; B.S., Fairleigh Dickinson University; Ph.D. University of Massachusetts – Amherst; CPA, New Jersey and Massachusetts. *Rebel since 2014*

**Siciliano, Daniel** - *Associate Graduate Faculty*  
Lecturer; B.S.B.A., M.B.A., University of Nevada, Las Vegas; CPA, Nevada; CGMA; CMA; CFM. *Rebel since 2012.*

**Smith, Jason L.** - *Full Graduate Faculty*  
Associate Professor; B.S., M.ACC., Brigham Young University; Ph.D., University of Arizona; CPA, Colorado. *Rebel since 2008.*

**Zimmerman, John** - *Full Graduate Faculty*  
Associate Professor; B.S., Glassboro State College; M.S., Golden Gate University; J.D., Southwestern University School of Law; CPA, California and New Jersey. *Rebel since 1989.*

### Professors Emeriti

#### **Baldwin, Duane E.**

Emeritus Professor; B.S., M.A., San Jose State University; D.B.A., University of Southern California; C.P.A., Nevada, Utah. *UNLV Emeritus 1975-1996.*

#### **Milne, Ronald A.**

Emeritus Associate Professor; B.S., Arizona State University; MBA, Michigan State University; Ph.D., University of Illinois. *UNLV Emeritus 1983-2000.*

## Advanced Graduate Certificate in Accounting (On Hold)

### Plan Description

This certificate is designed to prepare professionals, who may be switching careers or those entrepreneurs who want accounting skills to better run their business, with fundamental knowledge in accounting. Successful completion of the Advanced Graduate Certificate in Accounting will prepare students to enter the M.S. in Accountancy program. The Graduate Certificate in Accounting coupled with this Advanced Graduate Certificate in Accounting will provide professionals without an undergraduate degree in accounting the needed accounting credits to sit for the Certified Public Accounting (C.P.A.) exam.

### Plan Admission Requirements

Program is on Hold and not currently accepting applications.

Applications available on the UNLV Graduate College website.

Admission requirements include the successful completion of either an undergraduate degree in accounting or the UNLV Graduate Certificate in Accounting or equivalent coursework with a GPA or 2.75 or higher.

If desired, upon successful completion of the Advanced Graduate Certificate in Accounting, students may apply for admittance into the M.S. Accountancy program. General Admission requirements for admission to the M.S. Accountancy program are a 3.0 GPA or higher and a Graduate Management Admission Test (GMAT) score of 550 or higher. Students who complete the Advanced Graduate Certificate in Accounting with a 3.4 GPA or higher may waive the GMAT requirement. To transfer classes taken during the Certificate program into the MS program, students must earn a B or better in the course.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 15

Course Requirements

#### Required Courses – Credits: 15

Complete five graduate-level Accounting (ACC) courses (at least four of which must be at the 700-level).

The following courses may not be used toward the Advanced Graduate Certificate in Accounting:

ACC 600 - Accounting Environment  
ACC 601 - Financial Reporting I  
ACC 602 - Financial Reporting II  
ACC 609 - Accounting Information Systems  
ACC 610 - Federal Taxation  
ACC 670 - Auditing and Assurance Services  
ACC 673 - Law For Accountants I

Certificate Requirements

1. Completion of a minimum of 15 credit hours of ACC courses.
2. A minimum of 12 credit hours of 700-level courses.
3. A grade point average of at least 3.00 for course work required for the certificate.
4. No grade lower than C is acceptable.

#### Plan Certificate Completion Requirements

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

## Graduate Certificate in Accounting (On Hold)

### Plan Description

This certificate is designed to prepare professionals, who may be switching careers or those entrepreneurs who want accounting skills to better run their business, with fundamental knowledge in accounting. Successful completion of the Graduate Certificate in Accounting will prepare students to enter the Advanced Graduate Certificate in Accounting or the M.S. in Accountancy program. This Graduate Certificate in Accounting coupled with the Advanced Graduate Certificate in Accounting will provide professionals without an undergraduate degree in accounting the needed accounting credits to sit for the Certified Public Accounting (C.P.A.) exam.

### Plan Admission Requirements

Program is on hold and is not currently accepting applications.

Admission requirements include an undergraduate degree with a 2.75 GPA or higher and successful completion of two undergraduate accounting courses (ACC 201 – Introduction to Financial Accounting or equivalent and ACC 202 – Introduction to Managerial Accounting or equivalent).

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 18

Course Requirements

**Required Courses – Credits: 18**

Complete the following six courses or other advisor-approved courses.

ACC 600 - Accounting Environment  
ACC 601 - Financial Reporting I  
ACC 602 - Financial Reporting II  
ACC 609 - Accounting Information Systems  
ACC 610 - Federal Taxation  
ACC 670 - Auditing and Assurance Services

### Certificate Requirements

1. Completion of a minimum of 18 credit hours of ACC courses.
2. A grade point average of at least 3.00 for course work required for the certificate.
3. No grade lower than C is acceptable.

### Plan Certificate Completion Requirements

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

## Master of Science - Accounting

### Plan Description

The Master of Science – Accounting is a professional degree designed to enhance the skills of those planning careers in accounting. The program of study includes training in advanced accounting topics such as auditing, financial accounting, accounting systems, and taxation. The Master of Science -Accounting requires a minimum of 30 credit hours above the bachelor's degree.

The A.A.C.S.B. - International Association for Management Education accredits the Master of Science – Accounting. The Nevada State Board of Accountancy requires 150 hours of college credits from a college or university approved by the State Board of Accountancy. In combination with an undergraduate degree, the 30 hours required by the Accounting M.S. program should satisfy these requirements.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Each student must satisfy the following requirements for admission into the Master of Science – Accounting:

1. A bachelor's degree from an accredited college or university.
2. A minimum GPA of 3.00 or higher on a 4.00 scale.
3. Students must have satisfactorily completed introductory financial accounting.
4. A minimum GMAT score of 550 and a minimum score in the 25th percentile or higher on Verbal and a minimum score in the 25th percentile or higher on Quantitative.

5. The GMAT may be waived for UNLV accounting students who have a 3.25 GPA in the core accounting courses (ACC 400, 401, 402, 405, 409, 410 and 470) or equivalent.
6. Compliance with the Graduate College admission standards.

Students who have not completed all the following courses (or equivalent courses) as part of their bachelor's degree may be required to complete them as a condition of their admission prior to graduation from the Master of Science – Accounting:

- ACC 600 - Accounting Environment
- ACC 601 - Financial Reporting I
- ACC 602 - Financial Reporting II
- ACC 609 - Accounting Information Systems
- ACC 610 - Federal Taxation
- ACC 670 - Auditing and Assurance Services  
ACC 670 - Auditing and Assurance Services
- ACC 673 - Law For Accountants I

Note: These courses will not count toward the 30 credits required for the Master of Science – Accounting.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 30

Course Requirements

#### Accounting Courses – Credits: 15

Complete five 700-level Accounting (ACC) courses.

#### Elective Courses – Credits: 12

Complete four graduate level Accounting or Non-Accounting elective courses from approved list.

### Capstone Course – Credits: 3

Select one of the following courses based on the area of the accounting profession you wish to pursue:

ACC 701 - Federal Tax Topics

ACC 706 - Auditing Theory and Applications

ACC 715 - Advanced Management Accounting

#### Degree Requirements

1. A minimum of 18 credits must be taken within Accounting.
2. A minimum of 18 credits must be in 700-level courses.
3. A maximum of 12 credits may be taken outside of Accounting.
4. The student and the department graduate program coordinator will design each degree program.
5. Students seeking a Master of Science – Accounting must comply with all general university requirements as outlined in the Graduate Catalog. In addition, the above requirements must be satisfied, and exceptions or modifications of the program and requirements must be approved by the Graduate Coordinator.

#### Plan Graduation Requirements

The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

### Accounting Courses

ACC 600 - Accounting Environment

Credits 3

Explores the accounting profession, accounting information systems, internal controls, accounting decision-making, the accounting process and financial accounting, and accounting research.

**Notes** This course is crosslisted with ACC 400. Credit at the 600-level requires additional work.

**Prerequisites** ACC 201 and Graduate degree seeking.

ACC 601 - Financial Reporting I

Credits 3

Study of current accounting objectives, principles, theory, and practice in the preparation, interpretation, and analysis of general purpose financial statements for external users, as established by the Financial Accounting Standards Board and predecessor organizations.

**Notes** This course is crosslisted with ACC 401. Credit at the 600-level requires additional work.

**Prerequisites** ACC 400 or ACC 600 and Graduate degree seeking.

ACC 602 - Financial Reporting II

Credits 3

Continuation of the study of current accounting objectives, principles, theory, and practice in the preparation, interpretation, and analysis of general purpose financial statements for external users, as established by the Financial Accounting Standards Board and predecessor organizations.

**Notes** This course is crosslisted with ACC 402. Credit at the 600-level requires additional work.

**Prerequisites** ACC 401 or ACC 601. Graduate degree seeking.

ACC 605 - Cost Management and Control

Credits 3

Provides a thorough understanding of cost accounting theory and practice with emphasis on product costing concepts and methods, the use of cost information for strategic planning and decision analysis, and current cost topics including the influence of technology on accounting.

**Notes** This course is crosslisted with ACC 405.

Credit at the 600-level requires additional work.

**Prerequisites** Graduate degree seeking.

#### ACC 606 - Auditing in the Gaming Industry

Credits 3

Audits of gaming entities; terminology; regulatory requirements and the associated compliance audit requirements; control systems and the inherent risks unique to the gaming industry.

**Notes** This course is crosslisted with ACC 406.

Credit at the 600-level requires additional work.

**Prerequisites** ACC 600 or ACC 400. Graduate degree seeking.

#### ACC 607 - Governmental and Not-for-Profit Accounting

Credits 3

Study of the rules and procedures for accounting under the fund accounting principles of GASB. Entities covered are state and local governments and governmental not-for-profit organizations. Fund types include Governmental Funds, Proprietary Funds, and Trust & Agency Funds.

**Notes** This course is crosslisted with ACC 407.

Credit at the 600-level requires additional work.

**Prerequisites** ACC 401 or ACC 601. Graduate degree seeking.

#### ACC 609 - Accounting Information Systems

Credits 3

Promotes business solutions through the use of information technology. Tools and topics may include accounting software, databases, cycle-based analysis of internal controls, system documentation techniques, and data modeling.

**Notes** This course is crosslisted with ACC 409.

Credit at the 600-level requires additional work.

**Prerequisites** ACC 400 or ACC 600. Graduate degree seeking.

#### ACC 610 - Federal Taxation

Credits 3

Introduction to a broad range of tax concepts and types of taxpayers, including corporations, pass-through entities, and sole proprietorships.

Emphasizes the role of taxation in the business decision process, and provides students with the ability to conduct tax research, compliance and planning.

**Notes** This course is crosslisted with ACC 410.

Credit at the 600-level requires additional work.

**Prerequisites** ACC 201 and Graduate degree seeking

#### ACC 612\* - Fraud Examination

Credits 3

Covers the pervasiveness of and causes of fraud and white-collar crime; explore methods of fraud detection, investigation and prevention; and increase your ability to detect material financial statement fraud. Emphasis on real world cases, and current newspaper and journal articles.

**Notes** This course is crosslisted with ACC 412.

Credit at the 600-level requires additional work.

**Prerequisites** ACC 409 or ACC 609. Graduate degree seeking.

#### ACC 620 - Internal Auditing

Credits 3

Study of internal auditing as an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. Emphasis on communication and analytical skills.

**Notes** This course is crosslisted with ACC 420.

Credit at the 600-level requires additional work.

**Prerequisites** ACC 401 or ACC 601. Graduate degree seeking.

#### ACC 650 - International Accounting

Credits 3

Comparative accounting systems and their economic and social development patterns, foreign currency translation, analyzing multinational financial transactions and statements, accounting for international inflation, auditing in an international environment, international reporting and disclosures and international taxation and transfer pricing.

**Notes** This course is crosslisted with ACC 450.

Credit at the 600-level requires additional work.

#### ACC 670 - Auditing and Assurance Services

Credits 3

Environment of auditing and other assurance services, including professional standards, ethics and legal liability. Techniques and procedures employed in gathering audit evidence and reporting requirements.

**Notes** This course is crosslisted with ACC 470.

Credit at the 600-level requires additional work.



**Prerequisites** ACC 601 and taken or concurrent enrollment in ACC 609.

ACC 673 - Law For Accountants I  
Credits 3

Introduction to law and the court system; introduction to torts; contracts and sales; real and personal property.

**Notes** This course is crosslisted with ACC 473. Credit at the 600-level requires additional work.

**Prerequisites** Graduate degree seeking.

ACC 700 - Financial and Managerial Accounting  
Credits 3

Overview of the accounting cycle with an emphasis on the preparation and analysis of financial statements. Basic concepts and procedures of managerial accounting. Provides a foundation for identifying and analyzing alternatives useful for decision making.

**Notes** For non-business undergraduates only. Credit will not be given towards the MS degree.

ACC 701 - Federal Tax Topics  
Credits 3

Advanced tax topics involving corporations, proprietorships, and individuals.

**Prerequisites** ACC 410 or ACC 610 or equivalent.

ACC 702 - Financial Reporting Topics  
Credits 3

Advanced accounting principles, theory, and practice used in the preparation, interpretation, and analysis of general purpose financial statements for external users.

**Prerequisites** ACC 402 or ACC 602 or equivalent.

ACC 703 - Issues in Federal Taxation  
Credits 3

Broad survey course that examines an array of topics using the Internal Revenue Code, Treasury Regulations, court cases and IRS rulings. Topics include income recognition and exclusions, capitalizations, deductions, fringe benefits, capital assets, tax free exchanges and other topics.

**Prerequisites** ACC 410 or ACC 610 or equivalent.

ACC 705 - Research Methods in Federal Taxation  
Credits 3

Federal tax research methodology as related to

practical problem solving in the areas of accounting practice and administrative tax procedures before the Internal Revenue Service and the United States Tax Court.

**Prerequisites** ACC 410 or ACC 610 or equivalent.

ACC 706 - Auditing Theory and Applications  
Credits 3

Examination of the changing business environment of the auditor and the impact of these changes on auditing philosophy, objectives, and methodology. Contemporary issues in auditing examined.

**Prerequisites** ACC 470 or ACC 670 or equivalent.

ACC 709 - Systems Theory and Applications  
Credits 3

Through readings and case studies, the course develops knowledge needed in the accounting information systems field from advanced topics that focus on design and implementation issues of enterprise systems. Emerging issues in the application of technology to accounting information systems and IT auditing tools and risk assessment are also examined.

**Prerequisites** ACC 409 or ACC 609 or equivalent.

ACC 715 - Advanced Management Accounting  
Credits 3

This course covers current issues impacting management accounting. An emphasis will be placed on ethics and management control systems.

**Prerequisites** Graduate degree seeking.

ACC 725 - Mergers, Acquisitions and Divestitures  
Credits 3

Accounting concepts, practices, and procedures involved in accounting for business combinations, multinational-national corporations, and divestitures.

**Prerequisites** ACC 401 or ACC 601 or equivalent.

ACC 740 - Taxation of Corporations and Shareholders  
Credits 3

Federal income tax problems of corporations and shareholders including organization, capital structure, distributions, undistributed income, stock redemptions and partial liquidations.

**Prerequisites** ACC 410 or ACC 610 or consent of instructor.

ACC 745 - Taxation of Partnerships

Credits 3

Tax considerations of organization and operation of partnerships. Partnership distributions, withdrawal of partners, problems upon death of a partner, dissolution of partnership, and sale of an interest.

**Prerequisites** ACC 410 or ACC 610 or consent of instructor.

ACC 749 - Seminar in Estate Planning

Credits 3

Estate and gift taxation with consideration of estate planning devices, generation skipping transfer tax, marital deduction and liquidity problems.

**Prerequisites** ACC 410 or ACC 610 or equivalent.

ACC 774 - Law for Accountants II

Credits 3

Law of commercial paper; secured transactions; creditor's rights; bankruptcy; agency; business organizations (partnerships and corporations); security regulation.

**Prerequisites** Graduate degree seeking.

ACC 775 - Research Seminar in Accounting

Credits 3

This course is intended to introduce students to academic accounting research through participation in research seminars, evaluation of research papers and preparation of a research proposal. Students will also learn about academic careers in accounting.

**Notes** May be repeated to a maximum of six credits.

ACC 775R - Research Seminar in Accounting

Credits 3

This course is intended to introduce students to academic accounting research through participation in research seminars, evaluation of research papers and preparation of a research proposal. Students will also learn about academic careers in accounting.

**Notes** May be repeated to a maximum of six credits.

ACC 781 - Internship

Credits 3

Supervised professional learning experience in accounting with business firms, nonprofit organizations or government agencies. Project report required.

**Prerequisites** Admission to MS Accounting program.

ACC 789 - Seminar in Accounting

Credits 3

Study in specialized areas of accounting.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** ACC 701, ACC 702, ACC 725 and ACC 774 and have the requisite credits to sit for the CPA exam.

ACC 791 - Professional Paper

Credits 3

BLW 650 - Law of the Internet

Focus on the legal and ethical environment of doing business over the Internet. Topics include personal jurisdiction in cyberspace, electronic speech, privacy and data collection, on-line contracting, intellectual property, cybercrime and security, consumer protection, taxation, and Internet transactions involving securities.

**Notes** This course is crosslisted with BLW 450.

Credit at the 600-level requires additional work

## **Business Administration**

The MBA programs at the UNLV Lee Business School cultivate students to become leaders who succeed in today's dynamic business environment. In this competitive global business environment, success requires a strategic perspective, the ability to integrate decisions and solutions across disciplines and an understanding of the global dynamics of business. Our core curriculum delivers a strong foundation that provides students with those skills necessary to make decisions in this ever-changing environment.

Courses are offered through our evening MBA Program or Executive MBA Program. The evening MBA program students have an average of 5 years of work experience and a majority of them remain employed while pursuing their MBA. Executive MBA students average 13 years of work experience with 10 in management roles; they bring their collective experience to the classroom to enhance the learning environment. Both programs provide students with a diverse learning environment through the undergraduate degrees students hold, the careers they work in, and the countries and cultures that they represent.

Our faculty are committed to continuous quality improvement of the curriculum and teaching, to increased vertical and horizontal integration of course material and to team learning. To achieve the best outcome, the faculty embrace no single teaching method, but rather employ a combination of methods best suited to the particular objectives of the course. Lectures, group discussions, guest speakers, seminars, case studies, computer simulations, and individual and group research projects are frequently used within courses and across the curriculum.

All programs offered by the Lee Business School at UNLV are accredited by AACSB -- The Association to Advance Collegiate Schools of Business.

### **Graduate Non-Degree Seeking Students**

Students may be considered to take courses as a non-degree seeking student before being admitted to the program if the following conditions are met. Students

must have a current application for admission on file and satisfy the minimum admission requirements for the upcoming semester, including GMAT. Students must receive the approval of the MBA Director before enrolling in graduate courses offered by the Lee Business School. Approval may be granted for one semester only and for a maximum of six credit hours. Approval is restricted to the courses in the first half of the MBA core curriculum.

*Chin-Chun (Vincent) Hsu, Ph.D., Graduate Coordinator - MBA Director*

*Nikkole McCartin, M.B.A., Graduate Coordinator - EMBA Director*

## Business Administration Faculty

### Director of MBA Programs

#### **Hsu, Chin-Chun** - Full Graduate Faculty

Associate Professor; B.S., Tamking University; MBA, California State University, San Bernardino; Ph.D., Saint Louis University. *Rebel since 2003.*

### Graduate Faculty

#### **Alder, G. Stoney** - Full Graduate Faculty

Associate Professor; B.S., University of Utah; MBA, Brigham Young University; Ph.D., University of Colorado. *Rebel since 2002.*

#### **Chang, Saeyoung** - Full Graduate Faculty

Professor; B. Commerce, University of Calgary; MBA, Indiana University; Ph.D., Ohio State University. *Rebel since 1999.*

#### **Chatfield, Robert E.** - Full Graduate Faculty

Professor; B.A., Eastern Nazarene College; M. S., Ph.D., Purdue University. *Rebel since 1988.*

#### **Chi, Jainxin (Daniel)** - Full Graduate Faculty

Assistant Professor; B Economics, Qingdao University; MBA, Idaho State University; Ph. D. Texas A&M University, *Rebel since 2011.*

#### **Choi, Seungmook** - Full Graduate Faculty

Professor; B.A., Korea University; M.A., Ph.D., University of Texas, Austin. *Rebel since 1991.*

#### **Cross, James** - Full Graduate Faculty

Associate Professor; B.S., MBA, Ph.D., University of Minnesota. *Rebel since 1989.*

#### **Hsu, Chin-Chun (Vincent)** - Full Graduate Faculty

Associate Professor; B.S., Tamking University; MBA, California State University, San Bernardino; Ph.D., Saint Louis University. *Rebel since 2003.*

#### **Jameson, Melvin H.** - Full Graduate Faculty

Professor; S.B., Massachusetts Institute of Technology; M.A., Ph.D., University of California, Berkeley. *Rebel since 1989.*

#### **Krishen, Anjala S.** - Full Graduate Faculty

Associate Professor; B.S., Rice University

M.S., M.B.A., Ph.D., Virginia Polytechnic Institute and State University; . *Rebel since 2007.*

#### **Lee, D. Scott** - Full Graduate Faculty

Linsey Professor of Finance; B.S., University of Utah; Ph.D., University of Oregon. *Rebel since 2013.*

#### **McAllister, Daniel W.** - Full Graduate Faculty

Associate Professor; B.S., MBA, University of Utah; Ph.D., University of Washington. *Rebel since 1982.*

#### **Mejza, Michael** - Full Graduate Faculty

Associate Professor; B.A., University of Connecticut; MBA, Ph.D., University of Maryland. *Rebel since 1998.*

#### **Miller, Alan N.** - Full Graduate Faculty

Professor; B.A., University of New Hampshire; B.A., Temple University; MBA, Syracuse University; M.Phil., Ph.D., City University of New York. *Rebel since 1978.*

#### **Naylor, Gillian** - Full Graduate Faculty

Associate Professor; B.A., Washington State University; MBA, Eastern Washington State University; Ph.D., University of Arizona. *Rebel since 1996.*

#### **Nill, Alexander** - Full Graduate Faculty

Professor; M.A., Ludwig-Maximilian University; D.B.A., Ph.D., University of Innsbruck. *Rebel since 1999.*

#### **Pomirleanu, Nadia** - Full Graduate Faculty

Assistant Professor; B.S., Academy of Economic Studies; Ph.D., University of Central Florida. *Rebel since 2009.*

#### **Poon, Percy** - Full Graduate Faculty

Associate Professor; Honors Diploma, Hong Kong Baptist College; MBA, Southwest Texas State University; Ph.D., Louisiana State University. *Rebel since 1989.*

#### **Puthenpurackal, John** - Full Graduate Faculty

Associate Professor; B. Tech., College of Engineering; P.G.D.M. Indian Institute of

Management; Ph. D., Texas A&M University. *Rebel since 2006.*

**Randolph, Robert** - *Full Graduate Faculty*  
Assistant Professor; B.B.A., MBA, University of New Mexico; Ph.D., Mississippi State University. *Rebel since 2014.*

**Schibrowsky, John** - *Full Graduate Faculty*  
Professor; B.S., University of Wisconsin-Superior; MBA, University of Northern Iowa; Ph.D., University of Wisconsin-Madison. *Rebel since 1988.*

**Seale, Darryl Anthony** - *Full Graduate Faculty*  
Professor; B.S., California State University, Chico; MBA, Pennsylvania State University; M.A., Ph.D., University of Arizona. *Rebel since 1999.*

**Sullivan, Michael J.** - *Full Graduate Faculty*  
Professor; B.S., St. John Fisher College; MBA, University of Florida; Ph.D., Florida State University. *Rebel since 1991.*

**Tan, Keah-Choon** - *Full Graduate Faculty*  
Professor; B.S., MBA, University of South Alabama; Ph.D., Michigan State University. *Rebel since 1998.*

**Thistle, Paul D.** - *Full Graduate Faculty*  
Professor; B.B.A., University of Portland; M.S., Ph.D., Texas A & M University. *Rebel since 1999.*

**Wang, Sheng** - *Full Graduate Faculty*  
Associate Professor; Ph.D., Ohio State University Main Campus; MLHR, Ohio State University Main Campus. *Rebel since 2005.*

**Wisner, Joel D.** - *Full Graduate Faculty*  
Professor; B.S., New Mexico State University; MBA, West Texas State University; Ph.D., Arizona State University. *Rebel since 1991.*

**Zhang, Jianzhong (Andrew)** - *Full Graduate Faculty*  
Associate Professor; B.S., Xiamen University; M Economics, Nankai University; MBA, University of Louisiana Monroe; Ph.D., University of Arizona. *Rebel since 2008.*

## Professors Emeriti

**Claurette, Terrence M.**  
Emeritus Professor; B.A., Stonehill College; Ph.D., Washington State University. *UNLV Emeritus 1988.*

**Corney, William J.**  
Emeritus Professor; B.S.E.E., University of Michigan; M.B.A., Eastern Michigan University; D.B.A., Arizona State University. *UNLV Emeritus 1976.*

**Dandurand, Lawrence**  
Emeritus Professor; B.S.B., University of Minnesota; M.A., Mankato State College; Ph.D., University of Missouri. *UNLV Emeritus 1973.*

**Gilbert, Joseph T.** - *Full Graduate Faculty*  
Associate Professor; B.A., M.A., St. Louis University; Ph.D., University of Southern California. *Rebel since 1991.*

**Hames, David S.** - *Full Graduate Faculty*  
Associate Professor; B.A., Albion College; M.A., Michigan State University; Ph.D., University of North Carolina, Chapel Hill. *Rebel since 1989.*

**Leong, Keong** - *Full Graduate Faculty*  
Professor; B.S., University of Malaysia; M.B.A., University of South Carolina; Ph.D., University of South Carolina. *Rebel since 2001.*

**Newbould, Gerald D.**  
Emeritus Professor; B.Com., University of Birmingham; M.A., University of Sheffield; Ph.D., University of Liverpool. *UNLV Emeritus 1988.*

**Pinney, J. Kent**  
Emeritus Professor; B.A., University of Utah; MBA, D.B.A., Indiana University. *UNLV Emeritus 1973-1988.*

**Richards, Clinton H.**  
Emeritus Professor; B.S., M.B.A, Ph.D., University of Kansas. *UNLV Emeritus 1977*

## Executive Master of Business Administration

### Plan Description

The Executive Master's in Business Administration (EMBA) program of study offers an integrated blend of theory and practice and provides a general management emphasis that fosters the professional growth of mid- and upper-level career executives. It provides opportunities for integrating professional experiences with academic management curriculum.

The program is designed to provide a holistic educational experience. Courses are sequenced to assure continuity in learning. Through a lock-step format and an innovative curriculum, a group of highly motivated students are placed in a collaborative, proactive, integrative, and team oriented learning environment.

The students go through the program as a cohort, with the course schedule set at the beginning of the cohort's program. Students complete the program in 18 months. Classes typically meet every other Friday and Saturday. All students complete the program as a group. This provides a unique cohort experience that enhances teamwork throughout the program.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

The student must satisfy the minimum requirements of the Graduate College and the EMBA program. The candidate must meet the following requirements:

1. Submission of completed application form and the required \$100 nonrefundable application fee.
2. Submission of official transcripts of all college-level course work previously taken and evidence of having been awarded the

equivalent of a U.S. bachelor's degree from an accredited college or university with an overall undergraduate grade point average of at least 2.75 on the four-point scale.

3. Official results of the GMAT test. Applicants may indicate test scores and date taken on the application or indicate the expected exam date; however, official copies of the GMAT scores must be submitted to the Lee Business School EMBA Program Office.
4. Evidence of 7 or more years of work experience, a minimum of 3 years management experience.
5. Two letters of recommendation, at least one from the applicant's current or previous employer and one from someone who can evaluate the applicant's potential for success in a graduate degree program.
6. Resume.
7. Self-evaluation. The two to three-page, double-spaced self-evaluation should include a description of significant contributions you have made to your organization and a well-articulated career plan.
8. A personal interview.
9. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

All entering students are required to have competency in two areas. First, the applicant must be skilled in the use of word processing and spreadsheet programs. Second, the applicant must possess strong mathematical skills through college algebra. It is the applicant's responsibility to provide satisfactory evidence of these skills.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 43

## Course Requirements

### Required Courses – Credits: 40

EMBA 701 - Teamwork and Management Effectiveness  
EMBA 702 - Laws, Regulations and Ethics  
EMBA 703 - Microeconomic Analysis for Business Decision Making  
EMBA 704 - Technology Innovation: Theory and Practice  
EMBA 705 - Applied Statistics  
EMBA 707 - Financial Accounting for Managers  
EMBA 708 - Global and Macroeconomic Environment for Business  
EMBA 709 - Organization Behavior  
EMBA 710 - Business Finance  
EMBA 711 - Managerial Accounting  
EMBA 712 - Seminar in Financial Management  
EMBA 713 - Principles of Marketing Strategy  
EMBA 714 - Management of Entrepreneurial Organizations  
EMBA 715 - Strategic Management: Business Strategy and Corporate Strategy  
EMBA 716 - International Business  
EMBA 717 - Negotiations and Conflict Resolution  
EMBA 719 - Executive Assessment and Development  
EMBA 723 - Applied Strategic Marketing  
EMBA 722 - Service Operations

### Capstone Course – Credits: 3

EMBA 720 - International Seminar

## Degree Requirements

1. The candidates must successfully complete the 43 credits of required EMBA courses.
2. The content of the courses is customized to meet the need of executives. Classes generally meet on Friday and Saturday every other weekend. Classes are from 8:30 a.m. to 12:30 p.m. and 1:30 p.m. to 5:30 p.m. each day. Students must be able to make a commitment to attend all classes.
3. Each cohort takes an international trip. The International Seminar requires students to learn about the culture and business practices of the countries to be visited.

4. The academic performance of students is reviewed on a regular basis. If it is determined that a student is not making satisfactory progress toward meeting degree requirements, or if the student's overall GPA falls below 3.00, the student will be placed on probation. Conditions and deadlines for the removal of probation will be specified. Failure to meet the conditions will result in separation from the EMBA program. Graduation requires a minimum overall GPA of 3.00.
5. Withdrawing from a class is considered as being unsuccessful in that course and in the program and will result in dismissal from the program. A student who, due to extraordinary circumstances, is forced to withdraw from a course, and is subsequently dismissed from the program, may appeal to the Director of the EMBA Program.
6. Students who do not successfully complete a course in their EMBA program may replace the course with a similar course taken from the regular MBA program at UNLV or with another EMBA cohort at UNLV. The substitution requires the approval of the Director of the EMBA Program in the Lee Business School and is discouraged. Substitution will be possible only under the most unusual circumstances. In no case may more than two courses be substituted.

## Plan Graduation Requirements

The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

## Dual Degree: Master of Business Administration & Master of Science - Hotel Administration

### Plan Description

This is a dual degree offered by the Harrah Hotel College in conjunction with UNLV's Lee Business School. The MBA/MS HOA study is designed for those who seek career and business leadership opportunities in hotel administration. The programs will provide students with the needed skills, knowledge, and tools to become visionary and creative business leaders in hotel administration. The core MBA program is designed to advance the knowledge and practice of business and administration. The MS – Hotel Administration portion of the dual degree is designed to provide the industry-specific teaching and learning program. The program takes advantage of the natural learning environment that is created by the Las Vegas economy, the entertainment capital of the world. Students will receive a dual degree, an MBA and a MS – Hotel Administration.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

The admission requirements for the dual degree are the same as those stated under the MBA and MS HOA programs. The only exception is that the dual MBA program only accepts the GMAT for admission. All dual degree program applicants are required to show that they have at least one year of full-time management/supervisory experience or three years of cumulative full-time front-line experience in the hospitality industry.

#### *Application Process*

See the Application Process section under the MBA and the MS HOA programs. Applications will be reviewed by representatives of the Lee Business

School and the William F. Harrah College of Hotel Administration in an independent process within each college. Applicants must be admitted to both the Lee Business School and the William F. Harrah College of Hotel Administration to qualify for the dual degree program for that term.

#### *Application Deadline*

Refer to the Graduate College website for specific deadlines. All documentation and application materials must be received by the Graduate College, the William F. Harrah College of Hotel Administration Graduate Studies Office, and the Lee Business School by the deadline for the application to be considered.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Thesis Track**

Total Credits Required: 51

Course Requirements

*Total Credits Required for the Business Administration M.B.A.: 30*

#### **MBA Core Required Courses – Credits: 18**

MBA 761 - Accounting for Managers  
MBA 763 - Leadership, Teams, and Individuals  
MBA 765 - Financial Decision Making  
MBA 767 - Market Opportunity Analysis  
MBA 769 - Applied Economic Analysis  
MBA 775 - Data Modeling and Analysis

#### **Electives – Credits: 9**



Complete 9 credits of electives from any 700-level course offered by the Lee Business School.

**Capstone Course – Credits: 3**

MBA 787 - Strategic Management

*Total Credits Required for the Hotel Administration M.S.: 21*

**Required Courses – Credits: 12**

HOA 703 - Human Resources Management in the Hospitality Industry

HOA 711 - Laws of Innkeeping and Food Service

HOA 735 - Research Methodology

HOA 777 - Critical Issues in Hospitality Management

**Management Elective Course – Credits: 3**

Complete one of the following courses:

HOA 716 - Principles and Practices in Hotel Management

HOA 717 - Principles and Practices in Convention and Meetings Management

HOA 718 - Principles of Casino and Gaming Management

HOA 720 - Principles and Practices in Food Service Management

**Thesis – Credits: 6**

HOA 789 - Thesis

**Degree Requirements**

1. Completion of a minimum of 30 credits of MBA courses and a minimum of 21 credits of HOA.
2. A grade point average of at least 3.00 for course work required for the degree.
3. No grade lower than C is acceptable.
4. Students with unsatisfactory progress toward the degree requirements are subject to dismissal. A student with a grade of C or lower in any of the required courses for the degree will be put on probation for one semester. Conditions and deadlines for the removal of probation will be specified.

Failure to meet the condition will result in departure from the program. A student with two grades of C or lower will be dropped from the program.

5. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. In addition to the academic requirements, the Harrah Hotel College requires 500 hours of acceptable employment experience in the hospitality industry. The work experience requirement requires the student to find employment, but carries no academic credit and may be earned outside Nevada and during the summer. This work experience will be evaluated qualitatively as well as quantitatively, and may be waived at the discretion of the program coordinator. International students must go to the Office of International Students and Scholars to verify employment eligibility.

**Graduation Requirements**

1. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to graduate from both programs for the same semester.
2. The student must submit all required forms to the Graduate College and then apply for graduation from both degrees up to two semesters prior to completing his/her degree requirements.
3. The student must successfully complete the MBA capstone course.
4. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
5. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved

electronic version to ProQuest by the posted deadline.

### **Subplan 2 Requirements: Professional Paper Track**

Total Credits Required: 51

Course Requirements

*Total Credits Required for the Business Administration M.B.A.: 30*

### **MBA Core Required Courses – Credits: 18**

MBA 761 - Accounting for Managers  
MBA 763 - Leadership, Teams, and Individuals  
MBA 765 - Financial Decision Making  
MBA 767 - Market Opportunity Analysis  
MBA 769 - Applied Economic Analysis  
MBA 775 - Data Modeling and Analysis

### **Electives – Credits: 9**

Complete 9 credits of electives from any 700-level course offered by the Lee Business School.

### **Capstone Course – Credits: 3**

MBA 787 - Strategic Management

*Total Credits Required for the Hotel Administration M.S.: 21*

### **Required Courses – Credits: 12**

HOA 703 - Human Resources Management in the Hospitality Industry  
HOA 711 - Laws of Innkeeping and Food Service  
HOA 735 - Research Methodology  
HOA 777 - Critical Issues in Hospitality Management

### **Management Elective Course – Credits: 3**

Complete one of the following courses:

HOA 716 - Principles and Practices in Hotel Management  
HOA 717 - Principles and Practices in Convention

and Meetings Management  
HOA 718 - Principles of Casino and Gaming Management  
HOA 720 - Principles and Practices in Food Service Management

### **Elective Course – Credits: 3**

Complete 3 credits of any 500-, 600-, or 700-level HOA course.

### **Professional Paper – Credits: 3**

HOA 788 - Professional Paper

Degree Requirements

1. Completion of a minimum of 30 credits of MBA courses and a minimum of 21 credits of HOA.
2. A grade point average of at least 3.00 for course work required for the degree.
3. No grade lower than C is acceptable.
4. Students with unsatisfactory progress toward the degree requirements are subject to dismissal. A student with a grade of C or lower in any of the required courses for the degree will be put on probation for one semester. Conditions and deadlines for the removal of probation will be specified. Failure to meet the condition will result in departure from the program. A student with two grades of C or lower will be dropped from the program.
5. The Hotel Administration portion of the dual degree program requires successful completion of a professional paper that must adhere to the standards in the American Psychological Association's current publication manual regarding writing style and format. This paper must be completed at the end of the dual program.
6. In addition to the academic requirements, the Harrah Hotel College requires 500 hours of acceptable employment experience in the hospitality industry. The work experience requirement requires the student to find employment, but carries no academic credit and may be earned outside Nevada and during the summer. This work experience

will be evaluated qualitatively as well as quantitatively, and may be waived at the discretion of the program coordinator.

International students must go to the Office of International Students and Scholars to verify employment eligibility.

#### Graduation Requirements

1. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to graduate from both programs for the same semester.
2. The student must submit all required forms to the Graduate College and then apply for graduation from both degrees up to two semesters prior to completing his/her degree requirements.
3. The student must successfully complete a professional paper and the MBA capstone course.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

## Master of Business Administration

### Plan Description

The Lee Business School MBA Programs at UNLV are designed for those who seek global career and leadership opportunities. The world is changing quickly and today's business leaders are faced with new challenges in a complex business environment supported by new communication technologies and organizational structures. Success in the new global marketplace requires teams of executives working across functions and across borders.

The MBA programs at UNLV prepare students to succeed in today's business environment by providing them with the needed skills, knowledge, and tools to become visionary and creative leaders. The program focuses on ethics and critical thinking, business communications, the role of the firm and its goals and markets, firms' strategic planning and positioning, supply chain management, international business culture, information technology, leadership, and teamwork. Our faculty and administration are committed to fulfilling the recently revised college mission: to advance the knowledge and practice of the disciplines that constitute business and administration and to foster the intellectual and economic vitality of Nevada and the Intermountain Region through teaching, research, and outreach. Our faculty are committed to continuous quality improvement of the curriculum. To achieve the best outcome, the faculty embrace no single teaching method, but rather employ a combination of methods best suited to the particular objectives of the course. Lectures, group discussions, seminars, case studies, computer simulations, and individual and group research projects are frequently used within courses and across the curriculum.

### MBA Program Highlights

- A holistic approach to business management which starts with the role of the firm, its goals and markets, its strategic planning and positioning, and supply chain management.
- Explicit emphasis on a framework for analysis of ethical issues and critical thinking.
- A greater emphasis on international studies through

a specific course in international business and cross-cultural perspective and a greater internationalization of other courses.

- An evening MBA Program accommodating the needs of both full-time and part-time students by allowing students to complete their degree at a pace that fits their personal schedule.
- Students can take 2, 3 or 4 courses per semester enabling them to finish in the time frame of their choice. The cohort experience enables students to bond and network with each other in the program.
- Up to nine hours of electives provides greater flexibility in tailoring programs of study to each student's needs and interests.

#### Transfer Credit and Prior Course Work

Up to 12 graduate credit hours may be transferred if taken at AACSB accredited business schools within the last 5 years and a grade of B (3.00) or better is achieved. Graduate work taken pass/fail is not transferable toward the MBA degree. This transfer credit is limited by the requirement that a student must take a minimum of 30 credit hours of graduate classes from the UNLV Lee Business School to earn an MBA degree. Requests for transfer course work must be evaluated and approved by the MBA Director after the student is officially admitted.

#### Leave of Absence, Probation, and Suspension

Student academic performance is reviewed twice a year. Admitted students must enroll for courses every semester, excluding Summer Term, and must complete at least 6 credit hours every year. A leave of absence can be granted for up to one or two academic year(s) with prior approval from the MBA Director and Graduate College. A student will be placed on probation if it is determined that a student is not making satisfactory progress toward meeting degree requirements or if the student's overall MBA program GPA falls below 3.00. Conditions and deadlines for the removal of probation will be specified. Failure to meet the conditions will result in separation from the MBA program.

#### Programs

Business Administration & Dental Medicine Dual M.B.A./D.M.D.

Business Administration & Hotel Administration Dual M.B.A./M.S.

Business Administration & Juris Doctor Dual M.B.A./J.D.

Business Administration & Management Information Systems Dual M.B.A./M.S.

Business Administration Executive M.B.A.

Business Administration M.B.A.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

#### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

The Lee Business School MBA Program welcomes applications from college graduates in all disciplines. Applicants must hold a bachelor's degree from an accredited college or university. Graduates from all majors are encouraged to apply. Applicants are evaluated based upon proven scholastic ability, performance on the Graduate Management Admission Test (GMAT), maturity, motivation, leadership, communication skills, and possess the interest and ability to assume business leadership responsibilities.

MBA 741 – Internship (3 credits) is required for students without relevant business work experience. This requirement may be waived at the student's request and with proof of relevant work experience.

#### The Application Process

Admission to the graduate business program is conducted by the Lee Business School MBA Programs and the UNLV Graduate College. Please note that the responsibility of obtaining and submitting the application material, transcripts, test scores and other necessary information rests upon the applicant. In addition, international students must provide proof of English proficiency if the student's degree is from an institution where English is not the language of instruction.

Refer to the Graduate College Admission & Registration Information contained in this catalog for

a complete description of materials and processes required for admission consideration.

Application to the MBA and Dual Programs require the following documentation.

1. Official results of the GMAT test. You may indicate your test score and date taken on the application or indicate your expected exam date; however, official copies of the GMAT scores must be submitted to the Lee Business School MBA Programs Office.
2. A copy of the applicant's current resume.
3. Two letters of recommendation, academic or professional, from persons competent to judge the applicant's potential to pursue graduate work successfully.
4. A one to two page statement of purpose.
5. Evidence of a minimum of two years of relevant work experience preferred.
6. Evidence (official transcript) of an undergraduate Grade Point Average (GPA) of 3.00, or higher, on a four-point scale.
7. With the exception of the GMAT, required materials listed above are to be uploaded into the Graduate College online application. The MBA program does not require a separate application.

#### Graduate Management Admission Test

Applicants must meet the Graduate Management Admission Test (GMAT) score of 550 or higher with each component over the 25th percentile. The test score should be reflective of both, verbal and quantitative aptitude. GMAT scores over five years old are not considered. The average score of accepted students over the last two years is about 600. The computer adaptive GMAT is offered on a continuous basis by appointment at one of approximately 400 locations throughout North America. For further information contact:

#### Graduate Management Admission Test

1-800-717-GMAT (4628)

website: [www.mba.com](http://www.mba.com)

e-mail:

[GMATCandidateServicesAmericas@perason.com](mailto:GMATCandidateServicesAmericas@perason.com)

Applicants with demonstrated potential, a strong undergraduate academic record, and a strong GMAT score, are admitted with graduate standing. Students

may be considered for admission on a provisional basis if their undergraduate academic record and/or GMAT score are not sufficiently strong to be considered for full graduate standing. Applicants with a GPA less than 3.00 but not lower than 2.75, OR a GMAT score less than 550 but not lower than 520, with each component over the 25th percentile, may be considered for provisional admission. A graduate provisional student must complete the first nine credit hours of core courses taken in the program. The courses are approved in advance and are listed on the "Letter of Admission." The student must complete this course work within the first two consecutive enrollment periods (excluding Summer Term) and earn individual grades of B (3.00) or above (B- is not acceptable) before any other additional course work may be taken. Failure to complete this course work in the allotted time, or any grades less than B, will result in cancellation of the student's admission. Upon completion of the nine hours with grades of B or better, the Lee Business School will recommend to the Graduate College that the student be given graduate standing status. The Graduate College will then change the student's status to graduate standing.

Prior to their first semester in the program, all admitted students are required to attend a noncredit orientation program.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

#### Plan Requirements

*See Subplan Requirements below.*

Subplan 1 Requirements: Finance Concentration Track

Subplan 2 Requirements: General MBA Track

Subplan 3 Requirements: Human Resources Management Track

Subplan 4 Requirements: Management Information Systems Track

Subplan 5 Requirements: Marketing Track

Subplan 6 Requirements: New Venture Management Concentration Track

### **Subplan 1: Finance Track**

Total Credits Required: 42

Course Requirements

#### **Required Courses – Credits: 18**

MBA 761 - Accounting for Managers  
MBA 763 - Leadership, Teams, and Individuals  
MBA 765 - Financial Decision Making  
MBA 767 - Market Opportunity Analysis  
MBA 769 - Applied Economic Analysis

MBA 775 - Data Modeling and Analysis

#### **Finance Concentration– Credits: 12**

Complete 12 credits of graduate-level Finance (FIN) electives.

#### **Electives – Credits: 9**

Complete 9 credits of electives from any 700-level course offered by the Lee Business School. Also students can take up to six credits, 2 courses, that are 600-level courses offered by the Lee Business School.

#### **Capstone Course – Credits: 3**

MBA 787 - Strategic Management

Degree Requirements

1. The MBA degree requires a minimum of 42 credit hours of approved course work.
2. All requirements listed above must be completed successfully as defined by the Lee Business School and the Graduate College. All required courses are sequenced so students may acquire the tools and skill they need for success in the program.

### **Subplan 2: General MBA Track**

Total Credits Required: 42

Course Requirements

#### **Required Courses – Credits: 18**

MBA 761 - Accounting for Managers  
MBA 763 - Leadership, Teams, and Individuals  
MBA 765 - Financial Decision Making  
MBA 767 - Market Opportunity Analysis  
MBA 769 - Applied Economic Analysis  
MBA 775 - Data Modeling and Analysis

#### **Electives – Credits: 21**

Complete 21 credits of electives from any 700-level course offered by the Lee Business School. Also students can take up to six credits, 2 courses, that are 600-level courses offered by the Lee Business School.

#### **Capstone Course – Credits: 3**

MBA 787 - Strategic Management

Degree Requirements

1. The MBA degree requires a minimum of 42 credit hours of approved course work.
2. All requirements listed above must be completed successfully as defined by the Lee Business School and the Graduate College. All required courses are sequenced so students may acquire the tools and skill they need for success in the program.

### **Subplan 3: Human Resources Management Track**

Total Credits Required: 42

Course Requirements

#### **Required Courses – Credits: 18**

MBA 761 - Accounting for Managers  
MBA 763 - Leadership, Teams, and Individuals  
MBA 765 - Financial Decision Making  
MBA 767 - Market Opportunity Analysis

MBA 769 - Applied Economic Analysis  
MBA 775 - Data Modeling and Analysis

**Human Resources Management Concentration–  
Credits: 12**

MBA 771 - Law and Ethics  
MGT 711 - Seminar in Negotiation  
MGT 712 - Change Management  
MGT 740 - Foundations of Human Resources

**Electives – Credits: 9**

Complete 9 credits of electives from any 700-level course offered by the Lee Business School. Also students can take up to six credits, 2 courses, that are 600-level courses offered by the Lee Business School.

**Capstone Course – Credits: 3**

MBA 787 - Strategic Management

**Degree Requirements**

1. The MBA degree requires a minimum of 42 credit hours of approved course work.
2. All requirements listed above must be completed successfully as defined by the Lee Business School and the Graduate College. All required courses are sequenced so students may acquire the tools and skill they need for success in the program.

**Subplan 4: Management Information Systems  
Track**

Total Credits Required: 42

**Course Requirements**

**Required Courses – Credits: 18**

MBA 761 - Accounting for Managers  
MBA 763 - Leadership, Teams, and Individuals  
MBA 765 - Financial Decision Making  
MBA 767 - Market Opportunity Analysis  
MBA 769 - Applied Economic Analysis  
MBA 775 - Data Modeling and Analysis

**Management Information Systems  
Concentration– Credits: 12**

Complete 12 credits of graduate-level Management Information Systems (MIS) electives.

**Electives – Credits: 9**

Complete 9 credits of electives from any 700-level course offered by the Lee Business School. Also students can take up to six credits, 2 courses, that are 600-level courses offered by the Lee Business School.

**Capstone Course – Credits: 3**

MBA 787 - Strategic Management

**Degree Requirements**

1. The MBA degree requires a minimum of 42 credit hours of approved course work.
2. All requirements listed above must be completed successfully as defined by the Lee Business School and the Graduate College. All required courses are sequenced so students may acquire the tools and skill they need for success in the program.

**Suplan 5: Marketing Track**

Total Credits Required: 42

**Course Requirements**

**Required Courses – Credits: 18**

MBA 761 - Accounting for Managers  
MBA 763 - Leadership, Teams, and Individuals  
MBA 765 - Financial Decision Making  
MBA 767 - Market Opportunity Analysis  
MBA 769 - Applied Economic Analysis  
MBA 775 - Data Modeling and Analysis

**New Venture Management Concentration–  
Credits: 12**

**Required Courses (6 credits)**

MKT 720 - International Marketing Research  
MKT 777 - Services Marketing  
Select 2 of the following courses (6 credits)

MKT 725 - Global Consumer Behavior  
MKT 737 - New Service and Product Development  
MKT 747 - Global Digital Marketing Strategies  
MKT 757 - Strategic Database Marketing

**Electives – Credits: 9**

Complete 9 credits of electives from any 700-level course offered by the Lee Business School. Also students can take up to six credits, 2 courses, that are 600-level courses offered by the Lee Business School.

**Capstone Course – Credits: 3**

MBA 787 - Strategic Management

Degree Requirements

1. The MBA degree requires a minimum of 42 credit hours of approved course work.
2. All requirements listed above must be completed successfully as defined by the Lee Business School and the Graduate College. All required courses are sequenced so students may acquire the tools and skill they need for success in the program.

**Subplan 6: New Venture Management Track**

Total Credits Required: 42

Course Requirements

**Required Courses – Credits: 18**

MBA 761 - Accounting for Managers  
MBA 763 - Leadership, Teams, and Individuals  
MBA 765 - Financial Decision Making  
MBA 767 - Market Opportunity Analysis  
MBA 769 - Applied Economic Analysis  
MBA 775 - Data Modeling and Analysis

**New Venture Management Concentration–  
Credits: 12**

MGT 709 - New Venture Feasibility  
MGT 710 - New Venture Creation  
MGT 711 - Seminar in Negotiation  
MGT 712 - Change Management

**Electives – Credits: 9**

Complete 9 credits of electives from any 700-level course offered by the Lee Business School. Also students can take up to six credits, 2 courses, that are 600-level courses offered by the Lee Business School.

**Capstone Course – Credits: 3**

MBA 787 - Strategic Management

Degree Requirements

1. The MBA degree requires a minimum of 42 credit hours of approved course work.
2. All requirements listed above must be completed successfully as defined by the Lee Business School and the Graduate College. All required courses are sequenced so students may acquire the tools and skill they need for success in the program.

**Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Successfully complete the capstone course.



## Dual Degree: Master of Business Administration & Doctor of Dental Medicine

### Plan Description

The University of Nevada, Las Vegas School of Dental Medicine and the Lee Business School offer a dual Doctorate of Dental Medicine (DMD) and Master of Business Administration (MBA) degree program that allows students to be admitted in both programs and achieve the DMD and MBA degrees. As a concurrent program, the dual degree requires that students satisfy the degree requirements of both programs. The dual Master of Business Administration and Doctorate of Dental Medicine (MBA and DMD) program is designed for those who seek career and business leadership opportunities in the field of dentistry. Students will receive two degrees, an MBA and a DMD.

The MBA degree at the Lee Business School requires 42 credit hours. The Dental degree requires 195 credit hours. Under the dual degree program 12 credit hours of dental courses are accepted towards the MBA degree.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applicants to the DMD/MBA program must submit formal applications for admission to both the School of Dental Medicine and to the Lee Business School. Students must meet the requirements for admission to both programs. Admissions requirements are the same as those stated under the DMD and MBA programs. Contact the UNLV School of Dental Medicine and the Lee Business School MBA programs for further information on admissions requirements. Applications from current students in

either program will be considered. Entry into the MBA program for students from the School of Dental Medicine will be no earlier than the fall semester of year two of the dental curriculum. However, petitions requesting admission to the dual DMD/MBA program from students at more advanced stages will be considered.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 216

#### Course Requirements

Total Credits Required for the Business Administration M.B.A.: 30

#### MBA Core Required Courses – Credits: 18

MBA 761 - Accounting for Managers  
MBA 763 - Leadership, Teams, and Individuals  
MBA 765 - Financial Decision Making  
MBA 767 - Market Opportunity Analysis  
MBA 769 - Applied Economic Analysis  
MBA 775 - Data Modeling and Analysis

#### Electives – Credits: 9

Complete 9 credits of electives from any 700-level course offered by the Lee Business School.

#### Capstone Course – Credits: 3

MBA 787 - Strategic Management

Total Credits Required for the Doctor of Dental Medicine: 186

#### Degree Requirements

Students must be admitted to both the DMD and MBA programs with graduate standing. The

candidates must successfully complete the 186 credit hours of Dentistry and the 30 credit hours of the MBA required course work.

Furthermore:

1. UNLV School of Dental Medicine cannot award credit for any class taken before matriculation.
2. A maximum of six credit hours of courses taken prior to admission to the DMD/MBA program may be applied towards the MBA degree requirement. This includes all courses taken as a fully admitted graduate MBA student at an AACSB accredited business school, as an admitted dental student at UNLV, or as a non-admitted student at UNLV before admission to the MBA program.
3. DMD/MBA candidates who subsequently decide to pursue only the DMD or only the MBA must complete the degree program in its entirety and are subject to the same rules and requirements as students not pursuing the DMD/MBA program.
4. DMD/MBA may not receive credit for taking courses outside their degree program except as set forth in this document and with prior approval.
5. Student honors and class ranks at the School of Dental Medicine will be computed based solely on dental classes. Student honors and class ranks at the Lee Business School will be computed based solely on business classes.
6. Students in the DMD/MBA program must remain in good standing at both DMD and MBA programs.
7. Students in the DMD/MBA program are subject to the same rules and regulations that apply to all students at the School of Dental Medicine and the Lee Business School.
8. The Lee Business School and the School of Dental Medicine reserve the right to limit participation in the program, including dismissal. Those interested are encouraged to submit a request for permission to participate in the program, along with

applications for admission, at the earliest possible time.

### **Plan Graduation Requirements**

1. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to graduate from both programs for the same semester.
2. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
3. Successful completion of the capstone course.

## Dual Degree: Master of Business Administration & Juris Doctor

### Plan Description

The William S. Boyd School of Law and the Lee Business School offer a dual Juris Doctor (JD) and Master of Business Administration (MBA) degree program that allows students to be admitted in both programs and achieve the JD and MBA degrees simultaneously. As a concurrent program, the dual degree requires that students satisfy the degree requirements of both programs. The JD/MBA dual degree requires 80 Law credit hours and 30 MBA credit hours. Under the dual degree program 12 credit hours of Law courses are accepted towards the MBA degree and nine credit hours of MBA courses are accepted towards the JD degree.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applicants to the JD/MBA program must submit formal applications for admission to both the William S. Boyd School of Law and to the Graduate College. Students must meet the requirements for admission to both programs. Admission requirements are the same as those stated under the regular JD and MBA programs. For information on the MBA program application procedures, interested individuals should contact the Lee Business School-MBA Program at (702) 895-3655 or go to <http://business.unlv.edu> or the William S. Boyd School of Law at (702) 895-2440 or go to <http://www.law.unlv.edu>. While applications from current students in either program will be considered, students normally should seek and satisfy admission to enter both programs upon entering the university. However, petitions requesting admission to the dual JD/MBA program from students at more advanced stages in either program will be considered.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 110

#### Course Requirements

Total Credits Required for the Business Administration M.B.A.: 30

#### MBA Core Required Courses – Credits: 18

MBA 761 - Accounting for Managers  
MBA 763 - Leadership, Teams, and Individuals  
MBA 765 - Financial Decision Making  
MBA 767 - Market Opportunity Analysis  
MBA 769 - Applied Economic Analysis  
MBA 775 - Data Modeling and Analysis

#### Electives – Credits: 9

Complete 9 credits of electives from any 700-level course offered by the Lee Business School.

#### Capstone Course – Credits: 3

MBA 787 - Strategic Management

Total Credits Required for the Juris Doctor: 80

#### Required Courses - 44 credits

#### Directed Electives - 18 credits

#### Free Electives - 18 credits

#### Degree Requirements

1. Students must be admitted to both the JD and MBA programs with graduate standing. The candidates must successfully complete the 80 credit hours of Law course work and

- 30 credit hours of the MBA required course work.
2. William S. Boyd School of Law cannot award credit for any class taken before matriculation. JD/MBA candidates must therefore enroll at the School of Law before taking any MBA courses to be counted toward the JD degree.
  3. A maximum of six credit hours taken prior to admission to the JD/MBA program may be applied towards the MBA degree requirement. This includes all courses taken as a fully admitted graduate MBA student at an AACSB accredited business school, as an admitted law student at UNLV, or as a non-admitted student at UNLV before admission to the MBA program.
  4. JD/MBA candidates who subsequently decide to pursue only the JD or only the MBA must complete the degree program in its entirety and subject to the same rules and requirements as students not pursuing the JD/MBA program. Because students must finish both programs to receive credit toward the JD/MBA, degrees will not be awarded until both programs are finished.
  5. JD/MBA candidates must comply with the requirements for all students regarding the maximum amount of time for completion of a degree program. Law students have a maximum of 7 years to complete the J.D. degree. The Graduate College imposes a six-year time limit for completion of a master's program.
  6. JD/MBA candidates may not receive credit for taking courses outside their degree program without prior approval.
  7. Student honors and class ranks at the William S. Boyd School of Law will be computed based solely on law classes. Student honors and class ranks at the Lee Business School will be computed based solely on classes taken as business classes.
  8. Students in the JD/MBA program must remain in good standing at both JD and MBA programs.
  9. Students in the JD/MBA program are subject to the same rules and regulations that

- apply to all students at the William S. Boyd School of Law and the Lee Business School.
10. The listing of courses does not constitute a binding commitment that the courses will be offered during the student's course of study or that the graduation requirements will remain unchanged.

### **Plan Graduation Requirements**

1. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to graduate from both programs for the same semester.
2. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
3. Successful completion of the MBA capstone course.

## Business Administration Courses

EMBA 701 - Teamwork and Management Effectiveness

Credits 2

Examines why organizations increasingly adopting team-based work processes and circumstances where they are likely to be appropriate and effective. Mechanics of effective teamwork and team management. Includes effective team members and team leadership, organizational support for high performance teams, stages of team development and strategies for managing them, and issues pertaining to international teams.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 702 - Laws, Regulations and Ethics

Credits 2

Explores legal, regulatory and ethical issues which affect managers in their practice of business. Legal systems, philosophical approaches and practical applications.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 703 - Microeconomic Analysis for Business Decision Making

Credits 2

Uses economic analysis to understand crucial topics in business decision making, including: consumer behavior; supply and demand; choosing to input to minimize cost; product differentiation; firm behavior under different types of competition; pricing and advertising strategies; risk, uncertainty, and imperfect information; government regulation; labor issues; and mergers.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 704 - Technology Innovation: Theory and Practice

Credits 2

This course provides an in-depth look into the potential impacts of existing and emerging information technologies on contemporary business models through lecture, case analysis, and interaction with industry guest speakers. Potential impacts for

both new and existing businesses will be discussed.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 705 - Applied Statistics

Credits 2

Effective business research and decision making with the aid of statistical analysis. Hands-on experience with computer spreadsheet software. Covers how to find, manage, analyze, interpret, and effectively present actual business and economic data.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 706 - Organizational Theory: Strategy Implementation Processes

Credits 2

Effective implementation of organizational decisions and strategies. Draws on scholarly research in sociology, psychology, anthropology, and a wide variety of related social sciences. Executive-level overview of organization theory.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 707 - Financial Accounting for Managers

Credits 2

Examines process which determines economic impact of organization activities. Performance measurement, recording, and reporting. Focuses on methods and procedures that lead to the preparation of financial statements and reports to external audiences.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 708 - Global and Macroeconomic Environment for Business

Credits 2

Provides an understanding of macroeconomic conditions that impact firms operating in the global economy. Topics include aggregate demand and national income; business cycles; inflation; unemployment; interest rates; exchange rates; international trade in goods and capital; and fiscal and monetary government policies.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 709 - Organization Behavior  
Credits 2

Important concepts and applications in management including motivation, leadership, group dynamics, organization design, decision making, strategic planning and organizational change. Special emphasis on analyzing leadership skills of others and improving leadership potential of participants.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 710 - Business Finance  
Credits 2

Examines the role of financial management in creating firm value. Covers fundamental business finance topics and the application of basic finance concepts for decision making in a business environment. Taught from the perspective of a senior-level manager.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 711 - Managerial Accounting  
Credits 2

Focus on the use and potential misuse of accounting data by managers. Provides a foundation for identifying and analyzing decision alternatives and evaluating success in accomplishing organizational goals.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 712 - Seminar in Financial Management  
Credits 2

Covers major financial management issues pertaining to a firm's operations. Taught primarily through case discussions and use of spreadsheets in financial analysis.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 713 - Principles of Marketing Strategy  
Credits 2

Designed to introduce executives to conceptual and analytical frameworks that inform the development and execution of marketing strategy. A blend of readings and case studies will be used to build fundamental knowledge of the discipline and simulate marketing strategy decision making.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 714 - Management of Entrepreneurial Organizations  
Credits 3

Examines issues involved in developing and managing entrepreneurial organizations. Topics include: why some firms fail while others succeed; stages of growth and organization effectiveness; and management systems in an entrepreneurial context, such as strategic planning, organizational development, and leadership.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 715 - Strategic Management: Business Strategy and Corporate Strategy  
Credits 3

Explores business strategies (cost leadership, differentiation, tacit collusion, and strategic alliances) and corporate strategies (vertical integration, diversification, merger and acquisition, and globalization strategies.) Economic theories of competition and cooperation. Includes case studies of firms which have successfully or unsuccessfully employed a variety of strategies.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 716 - International Business  
Credits 2

Problems and opportunities of business in a global context. Examines international economic, institutional, cultural and legal differences and analyzes their impact on business decisions including: product design, production and marketing, human resources strategy; investment analysis; financial strategy and risk management. May be repeated to a maximum of two credits.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 717 - Negotiations and Conflict Resolution  
Credits 3

Examines the nature of conflict and the negotiation process as a tool for managing conflict. Includes preparing negotiations, negotiating strategies and tactics, organizing negotiating teams, coalition bargaining, the importance of individual difference

variables, international issues, the role of third parties, and ethical issues.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 718 - Executive Decision Making: Strategy Formation Processes

Credits 2

Explores classic cases and texts on organizational decision-making processes in order to improve participants' capacities to contribute to the effective manufacturing of organizational decisions.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 719 - Executive Assessment and Development

Credits 1

Helps participants to be more capable of understanding and leading change. Includes framework of leadership competency grounded in paradoxical thinking. Leadership concepts presented. Leadership assessment completed for each participant.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 720 - International Seminar

Credits 3

Includes problems and environment of international business, which require integrative analysis of these problems. Under faculty supervision, students visit selected international enterprises operating outside the United States and produce a written analysis including specific recommendations. May be repeated to a maximum of three credits.

**Prerequisites** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 722 - Service Operations

Credits 2

This course introduces students to the strategies, concepts, practices, and challenges of successful service operations. This course prepares students to identify and apply appropriate strategies and management processes to ensure efficient, effective, and quality oriented service operations, while achieving operational competitiveness.

**Prerequisites** Admission to EMBA program and approval of Dean's Office.

EMBA 723 - Applied Strategic Marketing

Credits 2

Designed to give executives the opportunity to apply marketing concepts in an effort to analyze, initiate and change marketing actions. Provides the knowledge and tools needed to analyze marketing problems.

**Prerequisites** EMBA 713

EMBA 725 - Corporate Risk Management

Credits 3

This course will focus on the fundamentals of corporate risk management from a strategic decision-making perspective. The course emphasizes how exposures to strategic, operational, financial and pure risks affect the firm, and how risk exposures can be re-engineered to enhance shareholder value. Topics further include the major sources of risk, the measurement of risk exposures, methods, and strategies of managing and controlling risk.

**Prerequisites** EMBA 715

MBA 741 - Internship

Credits 3

Supervised practical experience with a participating local enterprise or government agency, culminating in a written report.

**Prerequisites** Completion of 12 MBA credits and approval of the Director of the MBA Programs. Minimum GPA 3.0

MBA 751 - Independent Study

Credits 1 - 3

Independent study of a topic relevant to the practice of business under supervision of a faculty advisor.

**Prerequisites** Completion of 12 MBA credits and approval of the Director of the MBA Programs. Minimum GPA 3.0.

MBA 761 - Accounting for Managers

Credits 3

Fundamentals of financial and managerial accounting. Topics include accounting's conceptual framework, preparation and analysis of financial statements, current topics in financial reporting, ethical and legal responsibilities in financial reporting, cost-volume-profit analysis, tactical decision making, budgeting and accounting for management control.

**Formerly** MBA 709.

**Prerequisites** Admission to MBA Program or approval of the Director of MBA Programs.

MBA 763 - Leadership, Teams, and Individuals  
Credits 3

Overview of research and theory on organizational behavior with emphasis on the skills required for managerial effectiveness in modern complex organizations including motivating and leading employees, developing effective teams, and managerial communication responsibilities.

**Formerly** MBA 707.

**Prerequisites** Admission to MBA Program or approval of the Director of MBA Programs.

MBA 765 - Financial Decision Making  
Credits 3

Focuses on corporate financial management, including cash flow planning, capital budgeting, security valuation, and financing decisions. Includes the concepts of market efficiency and optimal capital structure. Provides useful set of tools to improve the efficiency of business and personal financial decisions.

**Formerly** MBA 711.

**Prerequisites** MBA 761 admission to M.B.A. program, or approval of the Director of MBA Programs.

MBA 767 - Market Opportunity Analysis  
Credits 3

Theory and practice of marketing fundamentals applied to the market opportunity analysis. Focus on the marketing concept, planning, internal analysis, industry analysis, customer analysis, segmentation, competitive strategies and strategy formulation, product and pricing decision, positioning, forecasting, and profitability of opportunities.

**Formerly** MBA 715.

**Prerequisites** Admission to the MBA program or approval of the Director of MBA Programs.

MBA 769 - Applied Economic Analysis  
Credits 3

Intensive application of the principles of microeconomic theory to business management problems. Presumes no previous knowledge of economics but moves rapidly to a thorough understanding of the tools of price theory. Topics include scarcity, choice, supply, demand, production,

cost, competition, monopoly, present value and decision-making under risk.

**Formerly** MBA 710.

**Prerequisites** Admission to MBA Program or approval of the Director of MBA Programs.

MBA 771 - Law and Ethics  
Credits 3

Deals with legal, regulatory and ethical environments of business. Provides foundation for recognizing and analyzing legal and ethical issues facing managers. Case studies applying both legal and ethical analysis featured.

**Formerly** MBA 706.

**Prerequisites** Admission to MBA Program or approval of the Director of MBA Programs.

MBA 773 - Managing Information  
Credits 3

Overview of contemporary information systems and technology issues. Technical, behavioral, organizational and competitive perspectives reviewed. Issues related to impact of information systems on organizational processes and work practices. Information systems strategies, technology implementation and systems analysis and design.

**Formerly** MBA 730.

**Prerequisites** Admission to the MBA program or approval of the Director of MBA Programs.

MBA 775 - Data Modeling and Analysis  
Credits 3

Intensive seminar/workshop applying statistical analysis to topics and problems encountered by business managers. Presumes no previous exposure to statistics but moves rapidly to the mastery of statistical analysis tools available on spreadsheet software. Topics include descriptive statistics, hypothesis testing, analysis of variance, simple regression and multiple regression.

**Formerly** MBA 702.

**Prerequisites** Admission to MBA Program or approval of the Director of MBA Programs.

MBA 779 - Managing Supply Chains  
Credits 3

Study of the integration of the key value-adding activities across a network of firms that produce raw materials, transform them into intermediate and then end products, and finally distribute these to end users.



Topics include purchasing and supplier relationships, inventory and quality management, distribution, customer relationship management, service response logistics, and future trends in supply chain management.

**Formerly** MBA 720.

**Prerequisites** Admission to the MBA program or approval of the Director of MBA Programs.

MBA 785 - Global Business

Credits 3

Problems and opportunities of business in a global context. Examines economic, institutional, cultural, and legal issues faced by companies involved in international business and analyzes their effect on business decisions including: product design, production and marketing, human resources strategy, investment analysis, financial strategy, and risk management.

**Prerequisites** MBA 761, 765, 767, 769 or approval of the Director of MBA Programs.

MBA 787 - Strategic Management

Credits 3

Integrates knowledge from specialized functional courses into a CEO perspective. Moves beyond a repertoire of generic strategies toward the formation of unique, firm specific strategies. Builds effective strategies in complex organizational contexts.

**Prerequisites** To be taken during the student's final year.

## Economics

Students who obtain the MA will demonstrate a masters level understanding of economic theory and will work competently with data and interpret clearly the results of empirical studies. Over the course of the program, MA students develop and hone their abilities to solve problems. Communicating the results of economic analysis is a valuable skill in the business world and the program provides students the opportunity to develop their writing and presentation skills. The program produces students with a set of skills that both businesses and policy makers value. MA students in economics are attractive candidates for different employers — government agencies, marketing research firms, corporate research and financial departments, and consulting firms. Students interested in pursuing a Ph.D. in economics or finance also benefit from the MA in economics. The department welcomes both full and part-time students. Ambitious students can complete the program in one year.

*Mary Riddell, Ph.D., Chair*

*Jeff Waddoups, Ph.D., Graduate Coordinator*

## Economics Faculty

### Chair

#### **Riddel, Mary** - *Full Graduate Faculty*

Professor; B.A., University of Colorado, Boulder; M.S., Ph.D., Colorado State University, Ft. Collins. *Rebel since 1999.*

### Graduate Coordinator

#### **Waddoups, C. Jeffrey** - *Full Graduate Faculty*

Professor; B.A., Ph.D., University of Utah. *Rebel since 1989.*

### Graduate Faculty

#### **Assane, Djeto** - *Full Graduate Faculty*

Associate Professor; B.A., University of Abidjan; M.A., University of New Mexico; Ph.D., University of Colorado. *Rebel since 1998.*

#### **Brown, Stephen P.A.** - *Full Graduate Faculty*

Professor; B.S., California Polytechnic State University; M.A., Ph.D., University of Maryland. *Rebel since 2010.*

#### **Chen, Lein-Lein** - *Full Graduate Faculty*

Professor; B.S., M.S., Florida International University; Ph.D., University of Miami. *Rebel since 1993.*

#### **Li, Herman** - *Full Graduate Faculty*

Assistant Professor; B.A., University of Pennsylvania; Ph.D., Penn State University. *Rebel since 2011.*

#### **Malamud, Bernard** - *Full Graduate Faculty*

Professor; B.S.E.E., Polytechnic Institute of Brooklyn; M.S.I.A., Carnegie-Mellon University; Ph.D., New School for Social Research. *Rebel since 1968.*

#### **Miller, Stephen M.** - *Full Graduate Faculty*

Professor, B.S., Purdue University; M.A., Ph.D., SUNY at Buffalo. *Rebel since 2001.*

#### **O, Munpyung** - *Full Graduate Faculty*

Assistant Professor; B.A., Sung Kyuan Kwan University; M.A., Ph.D., University of California, Santa Barbara. *Rebel since 2012.*

#### **Robinson, William J.** - *Full Graduate Faculty*

Assistant Professor; B.A., University of Northern Colorado; M.A., Ph.D., University of Colorado, Boulder. *Rebel since 1980.*

#### **Schlottmann, Alan** - *Full Graduate Faculty*

Professor; B.A., M.A., Ph.D., Washington University. *Rebel since 2000.*

#### **Tra, Constant** - *Full Graduate Faculty*

Associate Professor; B.A. California State University, Chico; M.S., Ph.D., University of Maryland. *Rebel since 2007.*

#### **Wimmer, Bradley** - *Full Graduate Faculty*

Professor; B.A., Coe College; Ph.D., University of Kentucky. *Rebel since 1998.*

### **Professors Emeriti**

#### **Clauretie, Terrence M.**

Emeritus Professor; B.A. Stonehill College; Ph.D. Washington State University. *UNLV Emeritus 1988.*

#### **Hoppe, Hans-Herman**

Emeritus Professor; M.A., Ph.D., Geothe-University, Frankfurt, West Germany. *UNLV Emeritus 1986.*

#### **Karstensson, Lewis**

Emeritus Associate Professor; B.A., Humboldt State College; M.A., Ph.D., Ohio University. *UNLV Emeritus 1979.*

#### **Ray, Clarence G.**

Emeritus Professor; B.S., College of Charleston; M.A., Ph.D., University of South Carolina. *UNLV Emeritus 1971-2000.*

#### **Simmons, Andrew**

Emeritus Professor; B.S., University of London; M.A., Michigan State University; Ph.D., University of London. *UNLV Emeritus 1960-1994.*

#### **White, William T.**

Emeritus Professor; B.S., University of Arizona; M.S., Columbia University; Ph.D., Georgetown University. *UNLV Emeritus 1967-1986.*

## Master of Arts - Economics

### Plan Description

The Master of Arts degree – Economics provides students with advanced training in applied economics. The program trains students for careers in business and government, and prepares students who desire to continue their studies in economics or finance at the doctoral level. Students in the MA program will obtain a solid foundation in microeconomic and macroeconomic theory, receive training in advanced econometric techniques, and develop their communication skills through writing and presentation. The program also allows students the possibility of pursuing interdisciplinary studies by taking courses in related disciplines such as finance or marketing. An internship program provides opportunities for students to obtain valuable work experience. MA graduates in economics possess the skills that prove attractive for different employers—government agencies, marketing research firms, corporate research and financial departments, and consulting firms. The department welcomes both full and part-time students. Ambitious students can complete the program in one year. Please see our web site for more information  
<http://business.unlv.edu/economics/>.

Formal preparation for most applicants seeking the Master of Arts degree requires intermediate microeconomic theory and macroeconomic theory. In addition, some form of quantitative preparation, such as calculus and intermediate statistics, is required. As noted below, students must meet general requirements for admission to the Graduate College of the University of Nevada, Las Vegas. The Department of Economics offers graduate courses during evening hours convenient for both working and full-time students.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

The first step in the application process requires the submission of relevant application forms, fees, letters of recommendation, official transcripts, test results, and assistantship applications to the Graduate College as outlined in this Catalog. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Students may begin course work in economics in the following classifications: full graduate standing or graduate provisional. Admission to full graduate standing requires that students must:

1. Meet the general requirements for admission to graduate instruction at the University of Nevada, Las Vegas.
2. Complete the prerequisite preparation in microeconomic theory, macroeconomic theory, and quantitative economics. The theory preparation may be satisfied by successfully completing ECON 302 and ECON 303. Completing ECON 262 and Math 181 may satisfy the quantitative preparation. These courses, however, do not apply toward the 30 hours of graduate course work required for the Master of Arts degree. In addition, students seeking to meet prerequisite requirements with undergraduate courses may need to take a placement exam to demonstrate competence.
3. Achieve score of 2100 or higher on the formula: 200 times grade point average (computed on a 4.00 scale) plus the product of 1.5 and the combined scores on the quantitative and verbal portions of the Graduate Record Exam. GRE scores for tests taken after August 1, 2011 may be adjusted accordingly to reflect the new GRE format and scoring rubric. Students may substitute the GMAT score for the GRE, in which case the GMAT score will be multiplied by 3 and added to 200 times the grade point average.

Accomplished UNLV undergraduates must meet all

of the following criteria to be eligible for the Advanced Program Track:

1. Receiving at least a B in graduate-level Economics courses completed as an undergraduate
2. Satisfactory completion of Graduate College admission requirements
3. Senior standing
4. Minimum of 3.0 GPA
5. Completion of the following courses with a minimum of 3.5 GPA and no grade lower than B: ECON 262 or ECON 441; ECON 302; ECON 303 and MATH 181
6. Department chair or graduate coordinator's recommendation
7. Submission of two letters of recommendation, a completed Enrollment Request form to the Economics department no less than two weeks before the beginning of the semester for which they would like to register for graduate courses

Students falling short of the requirements for admission with full graduate standing may be admitted as graduate provisional students. Students admitted with graduate provisional status must successfully complete the courses, possibly including any deficiencies, designated by the graduate coordinator, with an average of 3.33 or better within the first year of enrollment to qualify for admission with full graduate standing.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Conventional Track - Thesis**

Total Credits Required: 30

Course Requirements

### **Required Courses – Credits: 18**

ECO 701 - Macroeconomic Theory  
ECO 702 - Microeconomic Theory  
ECO 740 - Mathematical Economics  
ECO 770 - Econometrics I, Statistical Modeling  
ECO 772 - Econometrics II  
ECO 793 - Seminar in Economic Research

### **Elective Courses – Credits: 6**

Students completing the Thesis must complete a minimum of 6 credits of Economics coursework.

### **Culminating Experience – Credits: 6**

ECO 791 - Thesis

### **Degree Requirements**

1. Completion of a minimum of 30 credit hours, of which, at least 24 credits must be taken in 700-level courses.
2. Degree requirements may exceed (at the option of the student's advisor), but must not be less than the minimum outlined below. The advisor and/or the coordinator of graduate studies recommend specific course requirements for this degree.
3. An internship is required and will count toward the elective credit requirements. This requirement may be waived by the department upon evidence of appropriate experience. If waived, credits must be earned in other coursework.
4. Students not making satisfactory progress toward the degree are subject to dismissal. A student who earns two grades of C, D, or F in the first four graduate courses, or who receives the third grade of C, D, or F in a graduate course will be dropped from the M.A. program.
5. A minimum 3.00 average is required to earn the Master of Arts degree.
6. In consultation with his/her advisor, a student will organize a committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added

at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

7. It should be noted that a student taking four courses a semester could finish all course work in one year by adding an elective course in the fall and in the spring semesters and completing a culminating experience in the summer.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 2 Requirements: Conventional Track - Professional Paper**

Total Credits Required: 30

#### Course Requirements

#### **Required Courses – Credits: 18**

ECO 701 - Macroeconomic Theory  
ECO 702 - Microeconomic Theory  
ECO 740 - Mathematical Economics  
ECO 770 - Econometrics I, Statistical Modeling  
ECO 772 - Econometrics II  
ECO 793 - Seminar in Economic Research

#### **Elective Courses – Credits: 9**

Students who complete a Professional Paper must complete 9 credits of Economics coursework; 3 credits may be from a related discipline subject to the approval of the graduate coordinator.

#### **Culminating Experience – Credits: 3**

ECO 794 - Professional Paper

#### Degree Requirements

1. Completion of a minimum of 30 credit hours, of which, at least 24 credits must be taken in 700-level courses.
2. Degree requirements may exceed (at the option of the student's advisor), but must not be less than the minimum outlined below. The advisor and/or the coordinator of graduate studies recommend specific course requirements for this degree.

3. An internship is required and will count toward the elective credit requirements. This requirement may be waived by the department upon evidence of appropriate experience. If waived, credits must be earned in other coursework.
4. Students not making satisfactory progress toward the degree are subject to dismissal. A student who earns two grades of C, D, or F in the first four graduate courses, or who receives the third grade of C, D, or F in a graduate course will be dropped from the M.A. program.
5. A minimum 3.00 average is required to earn the Master of Arts degree.
6. In consultation with his/her advisor, a student will organize a committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
7. It should be noted that a student taking four courses a semester could finish all course work in one year by adding an elective course in the fall and in the spring semesters and completing a culminating experience in the summer.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 3 Requirements: Advanced Track - Thesis**

Total Credits Required: 24

#### Course Requirements

#### **Required Courses – Credits: 9**

ECO 740 - Mathematical Economics  
ECO 772 - Econometrics II  
ECO 793 - Seminar in Economic Research

#### **Economics Course – Credits: 3**

Complete one of the following courses:

ECO 701 - Macroeconomic Theory  
ECO 702 - Microeconomic Theory  
ECO 770 - Econometrics I, Statistical Modeling

**Elective Courses – Credits: 6**

Students completing the Thesis must complete a minimum of 6 credits of Economics coursework.

**Culminating Experience – Credits: 6**

ECO 791 - Thesis

Degree Requirements

1. Completion of a minimum of 24 credit hours, of which, at least 18 credits must be taken in 700-level courses.
2. Degree requirements may exceed (at the option of the student's advisor), but must not be less than the minimum outlined below. The advisor and/or the coordinator of graduate studies recommend specific course requirements for this degree.
3. An internship is required and will count toward the elective credit requirements. This requirement may be waived by the department upon evidence of appropriate experience. If waived, credits must be earned in other coursework.
4. In consultation with his/her advisor, a student will organize a committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. It should be noted that a student taking four courses a semester could finish all course work in one year by adding an elective course in the fall and in the spring semesters and completing a culminating experience in the summer.

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 4 Requirements: Advanced Track - Professional Paper**

Total Credits Required: 24

Course Requirements

**Required Courses – Credits: 9**

ECO 740 - Mathematical Economics  
ECO 772 - Econometrics II  
ECO 793 - Seminar in Economic Research

**Economics Course – Credits: 3**

Complete one of the following courses:

ECO 701 - Macroeconomic Theory  
ECO 702 - Microeconomic Theory  
ECO 770 - Econometrics I, Statistical Modeling

**Elective Courses – Credits: 9**

Students who complete a Professional Paper must complete 9 credits of Economics coursework; 3 credits may be from a related discipline subject to the approval of the graduate coordinator.

**Culminating Experience – Credits: 3**

ECO 794 - Professional Paper

Degree Requirements

1. Completion of a minimum of 24 credit hours, of which, at least 18 credits must be taken in 700-level courses.
2. Degree requirements may exceed (at the option of the student's advisor), but must not be less than the minimum outlined below. The advisor and/or the coordinator of graduate studies recommend specific course requirements for this degree.
3. An internship is required and will count toward the elective credit requirements. This requirement may be waived by the department upon evidence of appropriate experience. If waived, credits must be earned in other coursework.
4. In consultation with his/her advisor, a student will organize a committee of at least

three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

5. It should be noted that a student taking four courses a semester could finish all course work in one year by adding an elective course in the fall and in the spring semesters and completing a culminating experience in the summer.

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. To qualify for graduation, each student must successfully complete an empirical research paper or thesis.

## **Dual Degree: Master of Arts - Economics & Master of Science - Mathematical Sciences**

### **Plan Description**

The dual Master of Arts – Economics and Master of Science – Mathematical Sciences combine economic reasoning with mathematical methods. The program attracts students with focused career choices that require core competence in analytical skills and mathematical methods. It also prepares students with interests in pursuing a Ph.D. in economics with substantial quantitative skills, or a Ph.D. in Mathematics with economic applications. We believe that the analytical nature of the program will attract high quality undergraduates.

The MA – Economics portion of the dual degree program advances students' knowledge in macro- and micro-economic theory. It also provides students with econometrics as well as developing their communication skills. The MS – Mathematical Sciences portion of the dual degree program is designed to equip graduate students with a solid foundation of mathematics, statistics, and real-world applications.

The MS – Mathematical Sciences portion of the dual degree is designed to equip graduate students with a solid foundation of mathematics, statistics, and real-world applications. The MA – Economics portion of the dual degree advances students' knowledge in macro- and micro-economic theory. It also provides students with econometrics as well as developing their communication skills.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

The Departments of Economics and Mathematical Sciences welcome applications from college

graduates in all fields. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements. Applicants must satisfy the minimum admission requirements of the MA – Economics program and the MS – Mathematics program. If denied by one program, the applicant will have the option of proceeding with a single degree program with departmental approval.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 51

Course Requirements

Total Credits Required for the Economics M.A.: 24

### **Required Courses – Credits: 18**

ECO 701 - Macroeconomic Theory  
ECO 702 - Microeconomic Theory  
ECO 740 - Mathematical Economics  
ECO 770 - Econometrics I, Statistical Modeling  
ECO 772 - Econometrics II  
ECO 793 - Seminar in Economic Research

### **Elective Courses – Credits: 3**

Complete 3 credits of ECO electives at the 600- or 700-level.

### **Professional Paper – Credits: 3**

ECO 794 - Professional Paper

Total Credits Required for the Mathematical Sciences M.S.: 27

### **Required Courses – Credits: 18**

Complete 18 credits from the following list of courses:

MAT 657 - Introduction to Real Analysis I  
MAT 663 - Advanced Matrix Theory and Applications  
MAT 707 - Real Analysis I  
MAT 709 - Complex Function Theory I  
MAT 723 - Advanced Ordinary Differential Equations I  
MAT 771 - Applied Analysis I  
STA 761 - Regression Analysis I  
STA 762 - Regression Analysis II  
STA 767 - Mathematical Statistics I  
STA 768 - Mathematical Statistics II

### **Elective Courses – Credits: 3**

Complete 3 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved graduate-level courses.

### **Thesis – Credits: 6**

Complete six credits in one of the following courses:

MAT 791 - Thesis  
STA 791 - Thesis

### **Degree Requirements**

1. A minimum of 51 credits of graduate work is required for the Dual M.S. and M.A. Program in Mathematics and Economics.
2. Completion of a minimum of 24 credits for the Economics M.A. and a minimum of 27 credits for the Mathematical Sciences M.S. with a minimum GPA of 3.00.
3. 18 of the 21 credits of economics coursework (excluding professional paper) must be at the 700-level.
4. 15 of the 21 credits of mathematics coursework (excluding thesis) must be at the 700-level.
5. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee. Failure to meet the requirements



of probation will result in separation from the graduate program.

6. Classes in which a student receives a C or lower will not count towards his or her degree.
7. Students are required to defend a thesis on subjects in the interdisciplinary area of Mathematics and Economics. The committee chair and two other committee members must be from the Mathematics Department. The thesis committee must be composed at minimum of two graduate faculty members from the Economics Department. Please see Graduate College policy for committee appointment guidelines.
8. Students are required to complete a professional paper. The committee for the professional paper must be composed of a chair and two committee members from the Economics Department and one graduate faculty member from the Mathematics Department.

### Plan Graduation Requirements

1. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to graduate from both programs for the same semester.
2. The student must submit all required forms to the Graduate College and then apply for graduation from both degrees up to two semesters prior to completing his/her degree requirements.
3. The student must successfully complete a professional paper.
4. Submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
5. Submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### Economics Courses

ECO 502 - Intermediate Microeconomics  
Credits 3

Analysis of the price mechanism, resource allocation, output composition, and income distribution in a market economy. Remedial course to prepare for graduate level microeconomics. Does not count for credit toward the MA in Economics degree.

**Same as** ECON 302

ECO 503 - Intermediate Macroeconomics  
Credits 3

Analysis of income, output, employment, and price level determination in a market economy. role of fiscal and monetary policy in promoting stability and growth. Remedial course to prepare for graduate level macroeconomics. Does not count for credit toward the MA in Economics degree.

**Same as** ECON 303

ECO 602 - Topics in Microeconomics  
Credits 3

Extensions of microeconomic analysis. Application of traditional microeconomic concepts to study economic phenomena. Emphasis on decision making in the public policy arena.

**Notes** This course is crosslisted with ECON 402. Credit at the 600-level requires additional work.

ECO 651 - Public Finance  
Credits 3

Analysis of the financing and provision of public goods. Topics include: the nature of public goods, the choice regarding the level of public good provision, the incidence of taxes, and issues of tax equity.

**Notes** This course is crosslisted with ECON 451. Credit at the 600-level requires additional work.

ECO 655 - Economics of Industrial Organization  
Credits 3

Causes and implications of economic concentration and monopoly power. Comparison of alternative approaches to monopoly power in terms of social and economic goals.

**Notes** This course is crosslisted with ECON 455. Credit at the 600-level requires additional work.

ECO 701 - Macroeconomic Theory

Credits 3

Investigates the behavior of the main economic aggregates: output, employment, consumption, savings, investment, interest rates, and price level. Explores and assesses the major theories of the determinants and interrelations among these variables. Also analyzes the impact of various policies on the macroeconomy.

**Prerequisites** ECO 740

ECO 702 - Microeconomic Theory

Credits 3

Uses quantitative and graphic techniques to analyze household and firm decisions as a basis for market interactions. Topics include the determinants of demand and supply, price and output determination under perfect and imperfect competition, economic efficiency, income distribution, general equilibrium, and economic welfare.

**Prerequisites** Graduate standing.

**Corequisites** ECO 740

ECO 707 - Environmental and Natural Resource Economics

Credits 3

Relationship between environmental quality and natural resources, using economic analysis. Identifies solutions to economic problems arising from resource scarcity and use. Economic growth, externalities.

**Prerequisites** Graduate standing.

ECO 709 - Regional Economic Analysis

Credits 3

Theoretical and empirical analysis of the regional component of economic activity. Examination of location factors, regional and urban development theory, and regional/urban structure and growth theory. Explores regional analysis and forecasting.

**Prerequisites** Graduate standing.

ECO 720 - Health Economics and Policy

Credits 3

Analysis of the U.S. health care markets. Examination of physician, hospital, and insurance markets. Exploration of the role of regulation and technology. Includes international comparisons.

**Prerequisites** Graduate standing.

ECO 732 - Political Economy and Economic Policy

Credits 3

Role of markets, organizations, and governments in economic policy, including topics such as collective decision making, efficient and equitable social choice, regulation, and behavior of bureaucracies.

**Prerequisites** Graduate standing in the MPA, EPS, or Economics program or consent of instructor.

ECO 733 - Economic History of Europe

Credits 3

Economic and social background of European national and international development with emphasis upon the period 1500 to present.

ECO 734 - Economic History of the United States

Credits 3

Economic and social background of the American economy from the colonial period to the present.

**Prerequisites** ECO 301 and 302 or equivalent.

ECO 740 - Mathematical Economics

Credits 3

Application of mathematics to economic analysis.

**Prerequisites** Graduate standing or consent of instructor.

ECO 742 - History of Economic Thought

Credits 3

Criticism and evaluation of economic thought from ancient to modern times; main emphasis devoted to the development of economic thought since Adam Smith.

**Prerequisites** Graduate standing.

ECO 743 - Economic Fluctuations

Credits 3

Analysis of economic fluctuations from classical times to the present. Intensive study of factors which contribute to cyclical waves. Evaluation of selected economic indicators, business forecasting, and stabilization techniques.

**Prerequisites** Graduate standing.

ECO 750 - International Monetary Economics

Credits 3

Theories, institutions, and policies of international monetary economics and their impact on macroeconomic performance. Topics include international money markets, monetary and exchange

rate policies, policy effectiveness under different regimes, the role of expectations, and the effect of capital mobility.

**Prerequisites** Graduate standing.

ECO 760 - International Trade

Credits 3

Study of international trade and international commercial policies. Topics include theories and policies related to international movement of goods, services, and factors of production.

**Prerequisites** Graduate standing.

ECO 763 - Economics and the Law

Credits 3

Application of economic analysis to the topics confronted in litigation. Topics include: microeconomic theory, property rights, contracts, torts, discrimination, eminent domain, copyrights, patents, antitrust, and criminal law.

**Prerequisites** Graduate standing.

ECO 765 - Labor Economics

Credits 3

Examination of competing theories of labor market behavior. Topics include theories of labor supply, labor demand, wage determination, unemployment, discrimination and the impact of unions and government institutions on labor market outcomes.

**Prerequisites** Graduate standing.

ECO 770 - Econometrics I, Statistical Modeling

Credits 3

The course reviews fundamentals of mathematical statistics, that are used in econometric analysis. It integrates mathematical models and statistical techniques to perform regression analysis of cross-sectional data with a policy focus. Topics include empirical model building, estimation, and specification and data problems.

**Notes** Involves extensive use of computer software packages.

**Prerequisites** Graduate standing and a previous statistics course or consent of instructor.

ECO 772 - Econometrics II

Credits 3

Building on econometrics I, this course extends econometric/quantitative skills in the estimation and testing of economic theory. Topics include

instrumental variables and two stage least squares estimations, simultaneous equation models, qualitative dependent variable models and sample selection corrections, measurement error issues, introduction to time series and panel data methods.

**Prerequisites** Graduate standing, ECO 740, and ECO 770.

ECO 773 - Business and Economic Forecasting

Credits 3

Evaluation of the uses and misuses of forecasting techniques in economics, business and governmental decision making. Exploration of techniques of data handling including exponential smoothing, seasonal and cyclical adjustments. Use of simple and multiple regression models and advanced econometric techniques in forecasting. Nature and estimation of autoregressive moving average (ARIMA) models.

**Prerequisites** Graduate standing and ECO 770.

ECO 780 - Seminar in Economic Theory and Policy

Credits 3

Designed for the study of some specialized topic in economic theory or policy.

**Prerequisites** ECO 702, and ECO 770.

ECO 784 - Internship

Credits 3

Internship with business firms, non-profit organizations or government agencies. Project report and internship conference required.

**Grading** Students will receive S/F for final grade.

**Prerequisites** ECO 702, ECO 740, ECO 770, ECO 793.

**Corequisites** ECO 772

ECO 788 - Topics in Economics

Credits 1

Topics of interest to managers offered on a rotating basis. Possible topics include environmental economics, health economics, international economics, labor economics, regional economics, the economics of education, the economics of regulation, and economic forecasting.

**Notes** May be repeated to a maximum of three credits.

**Prerequisites** ECO 301, 302, and 362 or equivalent.

May not be taken for credit toward M.A. degree in Economics.

### ECO 790 - Independent Study

Credits 1 – 6

Directed research course under the supervision of a member of the graduate faculty, culminating in a written paper.

**Prerequisites** Consent of Department Chair or Graduate Coordinator.

### ECO 791 - Thesis

Credits 3 – 6

**Notes** May be repeated but only six credits will be applied to the student's program.

**Grading** S/F grading only.

### ECO 793 - Seminar in Economic Research

Credits 1 – 3

Provides students with hands-on training in empirical modeling, promotes critical thinking, teaches use of tool kit of research techniques and reinforces the student's understanding of economic concepts relating to economics research.

**Prerequisites** Graduate standing in Economics.

### ECO 794 - Professional Paper

Credits 3

Directed research under the supervision of a member of the graduate faculty, culminating in a professional paper that will be presented to the student's professional-paper committee. Students will participate in a weekly seminar, presenting results of their research. Students who do not complete a professional paper will receive a temporary grade of "X".

**Grading** S/F course grading only.

**Prerequisites** ECO 701, ECO 702, ECO 740, ECO 772, ECO 793

## Finance

The Department of Finance offers a major in finance, as well as a minor in finance. The finance discipline can be classified into three areas: corporate finance, investments, and finance markets and institutions. Students are exposed to both the theory and practical applications as relates to these areas of finance. Students are taught to focus on the key elements of complex financial issues and to provide solutions based on theory, knowledge, analysis and logic. This business field is for students who want to understand the financial implications inherent in virtually any business decision.

We prepare our students in finance for successful careers in corporate management, depository institutions, investment management, and financial services. The finance faculty have a diverse range of professional and research interests to enrich the student's classroom experience. Please refer to individual faculty web links for specific information.

*Paul Thistle, PhD, Chair*

## Finance Faculty

### **Department Chair**

**Thistle, Paul** - *Full Graduate Faculty*

### **Graduate Faculty**

**Chang, Saeyoung** - *Full Graduate Faculty*

**Chatfield, Robert** - *Full Graduate Faculty*

**Chi, Jianxin (Daniel)** - *Full Graduate Faculty*

**Choi, Seungmook** - *Full Graduate Faculty*

**Jameson, Melvin** - *Full Graduate Faculty*

**Lee, Scott** - *Full Graduate Faculty*

**Poon, Percy** - *Full Graduate Faculty*

**Puthenpurackal, John** - *Full Graduate Faculty*

**Sullivan, Michael** - *Full Graduate Faculty*

**Zhang, Andrew** - *Full Graduate Faculty*

## Graduate Certificate in Finance (On Hold)

### **Plan Description**

The Graduate Certificate in Finance is a graduate certificate program designed to offer students the opportunity to gain a strong knowledge base in the area of Finance. Possible prospective students include those with a non-business undergraduate degree and those with a business degree in an area of business other than Finance. This program essentially allows students to take a short, focused graduate program in the area of Finance. This program is aimed at professionals that currently work in a Finance-related field looking to enhance their Finance knowledge, or for professionals contemplating a career shift to a Finance-related field. Profiles of potential students include: (1) An employee of a financial services company whose educational background is in an area other than Finance and who could benefit from some more formal Finance training; (2) An employee of a financial services company looking for continuing education classes demanded for a professional license or credential; (3) Someone currently employed in an area other than Finance that desires to update their knowledge portfolio for a career change; (4) Someone personally interested in having a better understanding of the many Finance issues that directly affect their lives.

### **Plan Admission Requirements**

Program is on hold and is not currently accepting applications.

Admission requirements include an undergraduate degree with a GPA of 3.00 or higher, and either relevant work experience or a GMAT of 550 or higher. Relevant work experience is a minimum of 3 years experience in a relevant finance-related position. The determination of what is considered relevant work experience will be made by the Department of Finance Certificate Graduate Coordinator.

If desired, upon successful completion of the Graduate Certificate in Finance, students may apply for admittance into the Business Administration M.B.A.. General admission requirements for the

UNLV MBA program include: an undergraduate degree with a GPA of 3.00 or higher and a Graduate Management Admission Test (GMAT) score of 550 or higher.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 12

Course Requirements

#### **Required Courses – Credits: 3**

Complete the following course or an advisor-approved Finance course.

MBA 765 - Financial Decision Making

#### **Finance Courses – Credits: 9**

Complete three 700-level Finance (FIN) courses.

Certificate Requirements

1. Completion of a minimum of 12 credit hours.
2. A grade point average of at least 3.00 for course work required for the certificate.
3. With appropriate background the student may substitute an elective Finance class for MBA 765. What qualifies as an appropriate background will be determined by the Department of Finance Certificate Graduate Coordinator.
  - a. An example of an appropriate background is having an undergraduate degree in Finance.
  - b. Equivalent course work for MBA765 - Accounting Management is the completion of ACC 201 - Financial Accounting

and ACC 202 - Managerial Accounting (or their equivalents) with a B average or better (B- grades are not acceptable).

- c. MBA 761 - Accounting for Managers and MBA 769 - Applied Economic Analysis are prerequisites for MBA 765 and can be waived with equivalent course work. Equivalent course work for MBA 769 - Applied Economic Analysis is the completion of ECON 261 - Principles of Statistics I and ECON 262 - Principles of Statistics II (or their equivalents) with a B average or better (B- grades are not acceptable).

4. Students with unsatisfactory progress toward the certificate requirements are subject to dismissal. A student with a grade of C or lower in any of the required courses will be put on probation for one semester. Conditions and deadlines for the removal of probation will be specified. Failure to meet the condition will result in separation from the program. A student with two grades of C or lower will be dropped from the program.

### **Plan Certificate Completion Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

## Finance Courses

### FIN 708 - Advance Corporate Finance

Credits 3

Studies major decision-making areas of managerial finance and some selected topics in financial theory. Emphasis on the application of the theory and practice of business asset management, financing choice, capital structure, cost of capital, and dividend policy. Current topics, such as corporate acquisitions, restructuring, and underwriting covered as appropriate.

#### **Prerequisites**

Completion of the core MBA curriculum or approval of the Director of MBA Programs.

### FIN 709 - Applied topics in Finance

Credits 3

This course focuses on the application of theory in finance through some combination of case analysis, the use of spreadsheets to assist in financial analysis and simulations. Topics covered may include capital budgeting, cost of capital, capital structure, risk analysis, financial statement analysis, options, and mergers and acquisitions.

**Prerequisites** MBA 765

### FIN 710 - Investment Management

Credits 3

Theoretical and practical analyses of investment environment and process. Focuses on characteristics, valuation, and management of various financial instruments, such as common stock, corporate bonds, options, and futures. Students learn how to establish appropriate investment objectives, develop optimal portfolio strategies, estimate risk-return trade-offs, and evaluate investment performance.

**Prerequisites** Completion of the core MBA curriculum or approval of the Director of MBA Programs.

### FIN 712 - Financial Markets and Institutions

Credits 3

Comparative study of the diverse financial instruments and intermediaries existing in today's financial sector. Topics include: the structure of interest rates, relative costs and benefits of each instrument, financial innovation and financial "engineering," the role of banks, thrifts and other

intermediaries, and current and future trends in the financial sector.

#### **Prerequisites**

Completion of the core MBA curriculum or approval of the Director of MBA Programs.

### FIN 715 - Portfolio Management

Credits 3

Strategies investors employ to meet alternative investment objectives. Asset allocation decisions and the management of risk and return emphasized using various quantitative approaches to determine portfolio optimization and asset market equilibrium. Full spectrum of portfolio management issues considered across all classes securities, including equity, fixed-income, and derivative securities.

**Prerequisites** Completion of the core MBA curriculum and FIN 710 or approval of the Director of MBA Programs.

### FIN 740 - Risk Management

Credits 3

Applies risk management process as an integrated approach to financial, credit and insurable risks. Financial perspective on the corporate risk management function emphasized, using the financial tools of risk.

## **Management, Entrepreneurship, and Technology**

The mission of the Department of Management, Entrepreneurship and Technology is to create and disseminate knowledge that can be used by our students, scholars in our disciplines, and practitioners in all types of organizations to enrich people's lives and to benefit our community, state, and nation. Our faculty is dedicated to providing undergraduate and graduate students with a high quality and rigorous education and to publishing innovative and cutting edge research in leading peer-reviewed journals.

### **Technology Program**

This program prepares graduates for professional and managerial careers in IT or for doctoral studies leading to research and teaching careers in IS. This objective is achieved through a balanced emphasis on theory and practice. The program prepares graduates with a broad-based knowledge of information systems design, development, implementation, evaluation, and maintenance. The graduates will understand IT's dynamic nature and will be able to use and manage IT for problem solving, decision-making, competitive advantage, and innovation. Courses in the program include projects that allow students to organize team activities, analyze problems and propose solutions, explain project-related decisions, document and communicate progress, collect and analyze data, and present solutions. Students develop written and spoken communication skills. Students in this program have the option to write an MS thesis, a substantial original work that contributes to the body of knowledge in IS and business.

Students work closely with research faculty on the thesis with the objective of producing publishable quality research outcomes. The thesis prepares students for professional careers by giving them unique skills or knowledge with professional value. It prepares research oriented students with research skills that will be invaluable in pursuing the Ph.D. Students in the program take pride in using the thesis to learn something truly unique.

This degree program will prepare the graduate with:

- A deep understanding of systems thinking and ways that IT can be used to enhance effectiveness of the individual and organizations.
- The ability to analyze business problems, to develop system solutions, and apply information technology to obtain business solutions.
- A comprehensive understanding of the theoretical basis of management information systems and current research questions.
- The ability to learn on a continuing basis to stay current with rapidly changing technologies.
- The ability to effectively communicate the technology and its application to business executives and users of information systems.
- The knowledge and skills to function as an information technology professional in public or private organization.

Excellent preparation to enter a doctoral program in MIS.

*Alan N. Miller, Ph.D., Chair*

*Honghui Deng, Ph.D., Graduate Coordinator*



Management, Entrepreneurship and  
Technology Faculty

**Chair**

**Miller, Alan N.**

Professor; B.A., Temple University; B.S., University of New Hampshire; M.B.A., Syracuse University; M.Phil., Ph.D., The Graduate Center, City University of New York. *Rebel since 1978.*

**Coordinator, MIS Graduate Program**

**Deng, Honghui**

Associate Professor; Ph.D. University of Texas at Austin. *Rebel since 2003.*

**Graduate Faculty**

**Alder, G. Stoney**

Associate Professor, B.S., University of Utah; MBA, Brigham Young University; Ph.D. University of Colorado. *Rebel since 2002.*

**Chang, Jerry**

Associate Professor, Ph.D., University of Pittsburgh. *Rebel since 2000.*

**Chatterjee, Sutirtha**

Assistant Professor; Ph.D. Washington State University. *Rebel since 2012.*

**Deng, Honghui**

Associate Professor; Ph.D. University of Texas at Austin. *Rebel since 2003.*

**Gilbert, Joseph T.**

Associate Professor; B.A., M.A., St. Louis University; Ph.D., University of Southern California. *Rebel since 1991.*

**Hames, David S.**

Associate Professor; B.A., Albion College; M.A., Michigan State University; Ph.D., University of North Carolina, Chapel Hill. *Rebel since 1989.*

**Hardin, Andrew**

Associate Professor, Ph.D. Washington State University. *Rebel since 2007.*

**Hu, Han-fen**

Assistant Professor; Ph.D. University of Utah. *Rebel since 2012.*

**McAllister, Daniel W.**

Associate Professor; B.S.B.A., M.B.A., University of Utah; Ph.D., University of Washington. *Rebel since 1982.*

**Miller, Alan N.**

Professor; B.A., University of New Hampshire; B.A., Temple University; MBA, Syracuse University; M.Phil., Ph.D., City University of New York. *Rebel since 1978.*

**Moody, Gregory**

Assistant Professor; Ph.D., University of Oulu, Ph.D. University of Pittsburgh. *Rebel since 2011.*

**Peppers, Ken**

Professor; Ph.D., Purdue University. *Rebel since 2003.*

**Randolph, Robert**

Assistant Professor; Ph.D., Mississippi State University. *Rebel since 2014.*

**Rawhouser, Hans**

Assistant Professor; B.S.E., University of Nevada, Las Vegas; M.B.A., Thunderbird School of Global Management; Ph.D., University of Minnesota. *Rebel since 2012.*

**Rothenberger, Marcus**

Professor; Ph.D. Arizona State University. *Rebel since 2004.*

**Seale, Darryl Anthony**

Professor; B.S., California State University, Chico; MBA, Pennsylvania State University; M.A., Ph.D., University of Arizona. *Rebel since 1999.*

**Torkzadeh, Reza**

Professor, Ph.D., University of Lancaster, UK. *Rebel since 1999.*

**Wang, Sheng**

Associate Professor; Ph.D., Ohio State University Main Campus; MLHR, Ohio State University Main Campus. *Rebel since 2005.*

## **Professors Emeriti**

### **Erickson, Ranel**

Emeritus Professor, Ph.D., Stanford University. *UNLV Emeritus 1980.*

### **Hong, Weiyin**

Emeritus Associate Professor, Ph.D., Hong Kong University of Sciences. *UNLV Emeritus 2001.*

## **Graduate Certificate in Management (On Hold)**

### **Plan Description**

The Graduate Certificate in Management (GCM) will be comprised of graduate classes currently offered through the MBA curriculum. The Graduate Certificate is designed for those students wishing to gain knowledge or update their knowledge in the specific area of Management. The Graduate Certificate is not a degree program and completion of this program indicates an expertise in a narrower specialty, not general expertise in all areas of business. Moreover, while a concentration in New Venture Management exists in the MBA, a concentration in General Management does not.

### **Plan Admission Requirements**

Program is on hold and is not currently accepting applications.

Admission requirements include an undergraduate degree with a GPA of 3.00 or higher, and either relevant work experience or a GMAT of 550 or higher. Relevant work experience is a minimum of 3 years' experience in a relevant management-related position. The determination of what is considered relevant work experience will be made by the Coordinator of Non Degree Programs for the College of Business.

If desired, upon successful completion of the Graduate Certificate in Management, students may apply for admittance into the UNLV MBA. General admission requirements for the UNLV Evening MBA Program include: an undergraduate degree with a GPA of 3.00 or higher and a Graduate Management Admission Test (GMAT) score of 550 or higher.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within*

*the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 15

Course Requirements

#### **Required Courses – Credits: 15**

MBA 771 - Law and Ethics  
MBA 763 - Leadership, Teams, and Individuals  
MGT 709 - New Venture Feasibility  
MGT 711 - Seminar in Negotiation  
MGT 712 - Change Management

Certificate Requirements

1. Completion of a minimum of 15 credit hours.
2. A grade point average of at least 3.00 for course work required for the certificate.
3. No grade lower than C is acceptable.
4. There are no pre-requisites for MBA 771 and MBA 763, however, the remaining three courses require the completion of the MBA Core or admission to the Graduate Certificate in Management as a pre-requisite.
5. Students with unsatisfactory progress toward the certificate requirements are subject to dismissal. A student with a grade of C or lower in any of the required courses will be put on probation for one semester. Conditions and deadlines for the removal of probation will be specified. Failure to meet the condition will result in departure from the program. A student with two grades of C or lower will be dropped from the program.

#### **Plan Certificate Completion Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

## **Graduate Certificate in Management Information Systems**

### **Plan Description**

The Graduate Certificate in Management Information Systems (MIS) is a graduate certificate program designed for individuals who want to acquire specific MIS skills to meet the needs or demands of their workplace. The certificate program is suitable for students with no prior MIS background, as well as for those who have prior MIS knowledge or education and want to acquire specific additional skills (retooling). Students can select from three suggested subplans, or they can, upon approval of the MIS Graduate Coordinator, customize the certificate program to meet their specific retooling needs.

The Graduate Certificate in Management Information Systems requires the completion of four MIS graduate courses. These are courses that are already offered as part of the Master of Science in MIS (MS MIS) program. While the MS MIS program requires the completion of 36 credits, the Certificate in MIS requires the completion of 12 credits, a subset of the MS MIS program requirements.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

The Department of Management, Entrepreneurship, and Technology welcomes applications from college graduates in all fields. The student must satisfy the minimum admission requirements of the Graduate College and the Certificate in MIS. The candidate must meet the following requirements:

1. Submission of a completed application and required application fee;
2. Submission of official transcripts from all post-secondary institutions;

3. Evidence of having been awarded the equivalent of a U.S. bachelor's degree from an accredited college or university with an overall undergraduate grade point average of at least 3.00 on the four-point scale;
4. Official GMAT or GRE score. Graduate Management Admission Test (GMAT) with target score of 550. Applicants with satisfactory scores on the general aptitude portion (50th percentile or higher) of the Graduate Record Examination (GRE) will be considered for admission. Test scores over five years old are not accepted.

If a student is already admitted to the MS MIS program and wants to switch to the Certificate in MIS program, then the student must apply for admission to the certificate program. The student can transfer up to 12 credits of MIS courses into the certificate program after being admitted. Alternatively, if a student in the Certificate in MIS program wants to switch to the MS MIS program, then the student must apply for admission to the MS MIS program. The student can transfer up to 15 credits of MIS courses into the MS MIS program after being admitted. The student can transfer these credits into the MS MIS program even if they were already applied towards the certificate.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Business Analysis and Development for Systems**

Total Credits Required: 12

Course Requirements

#### **Required Courses – Credits: 12**

MIS 744 - Information Systems Planning & Strategy  
 MIS 746 - Information Systems Project Management  
 MIS 762 - Systems Analysis, Modeling and Design  
 MIS 766 - Data Management

Certificate Requirements

*See Plan Certificate Requirements below.*

Certificate Completion Requirements

*See Plan Certificate Completion Requirements below.*

#### **Subplan 2 Requirements: System Development Technologies**

Total Credits Required: 12

Course Requirements

#### **Required Courses – Credits: 12**

MIS 760 - Data Communications and Systems  
 MIS 762 - Systems Analysis, Modeling and Design  
 MIS 764 - Advanced Web Development and Electronic Commerce  
 MIS 775 - IT Architecture for Business

Certificate Requirements

*See Plan Certificate Requirements below.*

Certificate Completion Requirements

*See Plan Certificate Completion Requirements below.*

#### **Subplan 3 Requirements: Business Intelligence**

Total Credits Required: 12

Course Requirements

#### **Required Courses – Credits: 12**

MIS 760 - Data Communications and Systems  
 MIS 764 - Advanced Web Development and Electronic Commerce

MIS 766 - Data Management  
MIS 776 - Business Intelligence

the program. A student with two grades of C or lower will be dropped from the program.

Certificate Requirements

*See Plan Certificate Requirements below.*

Certificate Completion Requirements

*See Plan Certificate Completion Requirements below.*

#### **Subplan 4 Requirements: Individual Plan**

Total Credits Required: 12

Course Requirements

#### **Required Courses – Credits: 12**

Complete four courses authorized by your Graduate Coordinator. These courses must be listed on the Degree Audit Companion Form.

Certificate Requirements

*See Plan Certificate Requirements below.*

Certificate Completion Requirements

*See Plan Certificate Completion Requirements below.*

#### **Plan Certificate Requirements**

1. Completion of a minimum of 12 credit hours of MIS courses.
2. Changes to the courses of study require prior approval of the MIS Graduate Coordinator.
3. A grade point average of at least 3.00 for course work required for the certificate.
4. No grade lower than C is acceptable.
5. Students with unsatisfactory progress toward the certificate requirements are subject to dismissal. A student with a grade of C or lower in any of the required courses will be put on probation for one semester. Conditions and deadlines for the removal of probation will be specified. Failure to meet the condition will result in departure from

#### **Plan Certificate Completion Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

## Graduate Certificate in New Venture Management

### Plan Description

The Graduate Certificate in New Venture Management (GCNVM) is comprised of graduate classes currently offered through the Business Administration M.B.A. curriculum. The Graduate Certificate is designed for those students wishing to gain knowledge or update their knowledge in the specific area of New Venture Management. The Graduate Certificate is not a degree program and completion of this program indicates an expertise in a narrow specialty, not general expertise in all areas of business.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Admission requirements include an undergraduate degree with a GPA of 3.00 or higher, and either relevant work experience or a GMAT of 550 or higher. Relevant work experience is a minimum of 3 years experience in a relevant business-related position. The determination of what is considered relevant work experience will be made by the Coordinator of Non Degree Programs in the College of Business.

If desired, upon successful completion of the Graduate Certificate in New Venture Management, students may apply for admittance into the Business Administration M.B.A.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within*

*the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 15

Course Requirements

#### Required Courses – Credits: 9

MGT 709 - New Venture Feasibility  
MGT 710 - New Venture Creation  
MBA 767 - Market Opportunity Analysis

#### Elective Courses – Credits: 6

Complete 6 credits of advisor-approved coursework.

Certificate Requirements

1. Completion of a minimum of 15 credit hours.
2. A grade point average of at least 3.00 for course work required for the certificate.
3. No grade lower than C is acceptable.
4. There are no pre-requisites for MBA 767; however, the remaining courses require the completion of the MBA Core or admission to the Graduate Certificate in New Venture Management as a pre-requisite.
5. Students with unsatisfactory progress toward the certificate requirements are subject to dismissal. A student with a grade of C or lower in any of the required courses will be put on probation for one semester. Conditions and deadlines for the removal of probation will be specified. Failure to meet the condition will result in departure from the program. A student with two grades of C or lower will be dropped from the program.

#### Plan Certificate Completion Requirements

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

## Dual Degree: Master of Business Administration & Master of Science - Management Information Systems

### Plan Description

The dual MBA and MS – MIS program of study is designed for those who seek career and business leadership opportunities in management information systems. The program will provide students with the needed skills, knowledge, and tools to become visionary and creative business leaders with strong competency in management information systems. The core MBA program is designed to advance the knowledge and practice of business and administration. The MS – MIS portion of the dual degree is designed to prepare graduates with a broad-based knowledge of information system design, development, implementation, evaluation, and maintenance.

The program includes 54-credits and the student will receive both, an MBA and an MS MIS degree. Each student completes a total of 24 credit hours in MIS courses and a total of 30 credit hours in MBA core courses with a minimum GPA of 3.0. MBA courses are accepted as hours of elective towards the MS MIS degree. The program does not require a thesis.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

The admission requirements for the dual degree program are the same as each of the MBA and M.S. – Management Information Systems programs. Applicants must be admitted to each of the MBA and M.S. – Management Information Systems programs. Candidates have to apply to the MBA/MS – MIS Dual Degree program and meet the respective application requirements of each of the programs respectively.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 54

#### Course Requirements

Total Credits Required for the Business Administration M.B.A.: 30

#### MBA Core Required Courses – Credits: 18

MBA 761 - Accounting for Managers  
MBA 763 - Leadership, Teams, and Individuals  
MBA 765 - Financial Decision Making  
MBA 767 - Market Opportunity Analysis  
MBA 769 - Applied Economic Analysis  
MBA 775 - Data Modeling and Analysis

#### Electives – Credits: 9

Complete 9 credits of electives from any 700-level course offered by the Lee Business School.

#### Capstone Course – Credits: 3

MBA 787 - Strategic Management

Total Credits Required for the Management Information Systems M.S.: 24

#### Required Courses – Credits: 24

MIS 740 - Software Concepts  
MIS 744 - Information Systems Planning & Strategy  
MIS 746 - Information Systems Project Management  
MIS 760 - Data Communications and Systems  
MIS 762 - Systems Analysis, Modeling and Design  
MIS 764 - Advanced Web Development and Electronic Commerce  
MIS 766 - Data Management  
MIS 776 - Business Intelligence

With approval of the MS – MIS program graduate coordinator, required MIS courses may be substituted with elective courses to avoid duplication of a student's previous course work and to address the needs of the student's specific career choice.

#### Degree Requirements

1. Completion of a minimum of 30 credit hours of MBA core courses and a minimum of 24 credits of MS – MIS courses.
2. A grade point average of at least 3.00 for course work required for the degree.
3. No grade lower than C is acceptable.
4. Students with unsatisfactory progress toward the degree requirements are subject to dismissal. A student with a grade of C or lower in any of the required courses for the degree will be put on probation for one semester. Conditions and deadlines for the removal of probation will be specified. Failure to meet the condition will result in departure from the program. A student with two grades of C or lower will be dropped from the program.

#### Plan Graduation Requirements

1. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to graduate from both programs for the same semester.
2. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
3. Successful completion of the capstone course.

## Master of Science - Management Information Systems

### Plan Description

The Master of Science – Management Information Systems (MS MIS) program prepares graduates for professional careers in the management of information technology (IT). The MS MIS focuses on the application of technology to help achieve organizational goals and solve business problems. MIS students earn competency in IT, embedded in a business context that provides them with well-rounded preparation for occupations in high demand. Recent graduates are pursuing careers in a variety of roles, such as project manager, IT manager, business analyst, database analyst, network engineer, and systems consultant.

Each student completes a total of 36 credit hours in MIS courses with a minimum GPA of 3.0. The student can elect to either take 30 credit hours of coursework and complete a master-level thesis for 6 credit hours, or to complete 36 credit hours of course work. The student's program will be selected in consultation with and approved by the student's advisor and the department chair and may include up to two courses (four courses if the non-thesis option is selected) from supporting areas other than MIS, such as accounting, law, computer science, economics, social sciences, and management.

**For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. Submission of a completed application and required application fee;
2. Submission of official transcripts from all post-secondary institutions;
3. Evidence of having been awarded the equivalent of a U.S. Bachelor of Arts or



Bachelor of Science degree from an accredited college or university with an overall undergraduate grade point average of at least 3.00 on the four-point scale;

4. For MIS applicants who previously attended a post-secondary institution outside of the U.S., the requirement that transcripts be evaluated by an outside agency is waived.
5. Official GMAT or GRE score. Graduate Management Admission Test (GMAT) with target score of 550. Applicants with satisfactory scores on the general aptitude portion (50th percentile or higher) of the Graduate Record Examination (GRE) will be considered for admission. Test scores over five years old are not accepted. The GMAT test score should be reflective of verbal and quantitative aptitude. GMAT or GRE scores over five years old are not accepted.
6. Two letters of recommendation submitted in sealed envelopes or uploaded through the AY application system.
7. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Individuals with deficiencies in their undergraduate background may be required to enroll in selected additional undergraduate courses to satisfy the M.S. degree requirements. A maximum of 12 credit hours may be transferred into the program if taken recently from an AACSB accredited school. The department chair and the associate dean must approve any earned credits for transfer.

Individuals with degrees in disciplines other than business may be required to take leveling business courses, as prescribed by the director.

The application forms, fees, letters of recommendation, official transcripts, test results, and assistantship applications must be submitted to the Graduate College as outlined in this catalog.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within*

*the described programs are subject to change at any time.*

## **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Thesis Track**

Total Credits Required: 36

Course Requirements

#### **Required Courses – Credits: 24**

MIS 740 - Software Concepts  
MIS 744 - Information Systems Planning & Strategy  
MIS 746 - Information Systems Project Management  
MIS 760 - Data Communications and Systems  
MIS 762 - Systems Analysis, Modeling and Design  
MIS 764 - Advanced Web Development and Electronic Commerce  
MIS 766 - Data Management  
MIS 773 - Research Seminar in Information Systems

#### **Elective Courses – Credits: 6**

Complete 6 credits of advisor-approved electives.

#### **Thesis – Credits: 6**

MIS 780 - Thesis

\* \* If a student has completed any of the required or elective MIS graduate courses as part of a previous degree at UNLV with grades of B or better, the course(s) may be waived and the number of credits required for the MS MIS program will be reduced by an equal number of credits, up to a maximum of 12 credits.

If the student has not sufficient relevant work experience, up to 6 credits of MIS 755 Internship may be required in addition to the above degree requirements. The determination is made by the MIS Graduate Coordinator in consultation with the student at the time of filing the Proposed Master's Degree Program, which shall occur before the student completes 16 credits towards the degree.

Degree Requirements

1. Completion of a minimum of 36 credit hours of MIS courses.
2. A grade point average of at least 3.00 for course work required for the degree.
3. No grade lower than C is acceptable.
4. Each student's program of course work must be selected in consultation with and approved by the student's advisor and the department chair, and may include up to 6 credit hours from selected disciplines other than MIS, such as cognitive psychology, computer science, accounting, or economics.
5. Students on the thesis track are expected to select a research advisor by the end of their first year, to attend all departmental seminars, and to present a research seminar prior to graduation.
6. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
7. Students with unsatisfactory progress toward the degree requirements are subject to dismissal. A student with a grade of C or lower in any of the required courses for the degree will be put on probation for one semester. Conditions and deadlines for the removal of probation will be specified. Failure to meet the condition will result in departure from the program. A student with two grades of C or lower will be dropped from the program.
8. Students are required to register for six hours of thesis. They are advised to split these six hours of thesis and register for three hours each during the last two semesters.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 2 Requirements: Non-Thesis Track**

Total Credits Required: 36

Course Requirements

#### **Required Courses – Credits: 24**

MIS 740 - Software Concepts  
 MIS 744 - Information Systems Planning & Strategy  
 MIS 746 - Information Systems Project Management  
 MIS 760 - Data Communications and Systems  
 MIS 762 - Systems Analysis, Modeling and Design  
 MIS 764 - Advanced Web Development and Electronic Commerce  
 MIS 766 - Data Management  
 MIS 773 - Research Seminar in Information Systems

#### **Elective Courses – Credits: 12**

Complete 12 credits of advisor-approved electives.

\* \* If a student has completed any of the required or elective MIS graduate courses as part of a previous degree at UNLV with grades of B or better, the course(s) may be waived and the number of credits required for the MS MIS program will be reduced by an equal number of credits, up to a maximum of 12 credits.

If the student has not sufficient relevant work experience, up to 6 credits of MIS 755 Internship may be required in addition to the above degree requirements. The determination is made by the MIS Graduate Coordinator in consultation with the student at the time of filing the Proposed Master's Degree Program, which shall occur before the student completes 16 credits towards the degree.

Degree Requirements

1. Completion of a minimum of 36 credit hours of MIS courses.
2. A grade point average of at least 3.00 for course work required for the degree.
3. No grade lower than C is acceptable.
4. Each student's program of course work must be selected in consultation with and approved by the student's advisor and the department chair, and may include up to 6 credit hours from selected disciplines other than MIS, such as cognitive psychology, computer science, accounting, or economics.
5. Students with unsatisfactory progress toward the degree requirements are subject to dismissal. A student with a grade of C or lower in any of the required courses for the degree will be put on probation for one semester. Conditions and deadlines for the removal of probation will be specified. Failure to meet the condition will result in departure from the program. A student with two grades of C or lower will be dropped from the program.

#### Graduation Requirements

The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

## Dual Degree: Master of Science - Hotel Administration & Master of Science - Management Information Systems

### Plan Description

The Lee School of Business, MIS department and the William F. Harrah College of Hotel Administration offer a Master of Science – Hotel Administration and Master of Science – Management Information Systems (MS HOA / MS MIS) dual degree program. It is designed for students who seek careers and leadership opportunities in the hospitality industry with a focus on information technology and management information systems. The program provides students with the skills, knowledge, and tools needed to become visionary and creative leaders in information technology in the hospitality industry.

The program includes 48-credits and the student will receive both, an MS HOA and an MS MIS degree. The MS MIS degree (24 credits) helps students develop critical skills in information technology systems analysis and design. The MS HOA degree (24 credits) helps students acquire knowledge specific to the management of hospitality operations. HOA courses are accepted as hours of elective towards the MS MIS degree and MIS courses are accepted as hours of elective towards the HOA degree. This program will take at least three years (six semesters) to complete. The completion of a professional paper is included in the credit total.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements. The admission requirements for the dual degree are the same as those stated under the MS MIS and MS HOA programs. Dual MS MIS applicants may take the

GRE or the GMAT. All dual degree program applicants are required to show that they have at least one year of full-time management/supervisory experience or three years of cumulative full-time front-line experience in the hospitality industry.

See the Application Process section under the MS MIS and the MS HOA programs. Applications will be reviewed by representatives of the Lee Business School and the William F. Harrah College of Hotel Administration in an independent process within each college. Applicants must be admitted to both the Lee Business School and the William F. Harrah College of Hotel Administration to qualify for the dual degree program for that term. If denied by one program, the applicant will have the option of proceeding with a single degree program with departmental approval.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 48

Course Requirements

Total Credits Required for the Management Information Systems M.S.: 24

### **Required Courses – Credits: 24**

MIS 740 - Software Concepts  
MIS 744 - Information Systems Planning & Strategy  
MIS 760 - Data Communications and Systems  
MIS 762 - Systems Analysis, Modeling and Design  
MIS 764 - Advanced Web Development and Electronic Commerce  
MIS 766 - Data Management  
MIS 775 - IT Architecture for Business  
MIS 776 - Business Intelligence

Total Credits Required for the Hotel Administration M.S.: 24

### **Required Courses – Credits: 15**

HOA 711 - Laws of Innkeeping and Food Service  
HOA 725 - Information Technology in the Hospitality Industry  
HOA 731 - Operational Analysis in Hospitality Management  
HOA 735 - Research Methodology  
HOA 751 - Hospitality Service Management

### **Management Elective Course – Credits: 3**

Complete one of the following courses:

HOA 716 - Principles and Practices in Hotel Management  
HOA 717 - Principles and Practices in Convention and Meetings Management  
HOA 718 - Principles of Casino and Gaming Management  
HOA 720 - Principles and Practices in Food Service Management

### **Seminar Course – Credits: 3**

Complete one of the following courses:

HOA 760 - Research Seminar in Hotel Administration  
HOA 761 - Research Seminar in Food Service Administration  
HOA 763 - Research Seminar In Casino and Gaming Management  
HOA 777 - Critical Issues in Hospitality Management

### **Professional Paper – Credits: 3**

HOA 788 - Professional Paper

Degree Requirements

1. Completion of a minimum of 24 credits of MS HOA courses and a minimum of 24 credits of MS MIS courses.
2. A grade point average of at least 3.00 for course work required for the degree.
3. No grade lower than C is acceptable.
4. With approval of the MS MIS program graduate coordinator, required MIS courses may be substituted with elective courses to avoid duplication of a student's previous

course work and to address the needs of the student's specific career choice.

5. Students with unsatisfactory progress toward the degree requirements are subject to dismissal. A student with a grade of C or lower in any of the required courses for the degree will be put on probation for one semester. Conditions and deadlines for the removal of probation will be specified. Failure to meet the condition will result in departure from the program. A student with two grades of C or lower will be dropped from the program.
6. The Hotel Administration portion of the dual degree program requires successful completion of a professional paper that must adhere to the standards in the American Psychological Association's current publication manual regarding writing style and format. This paper must be completed at the end of the dual program and examine a topic relating to Information Technology in Hospitality.

### **Plan Graduation Requirements**

1. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to graduate from both programs for the same semester.
2. The student must submit all required forms to the Graduate College and then apply for graduation from both degrees up to two semesters prior to completing his/her degree requirements.
3. Successfully complete a professional paper.

## **Management, Entrepreneurship, and Technology Courses**

### **MGT 709 - New Venture Feasibility**

Credits 3

This course emphasizes feasibility analysis as students choose business opportunities they will pursue. In conjunction with case study analysis and interaction with local entrepreneurs, students will assess the technical merits, operational logistics, legal ramifications, consumer needs and demands, team skills and abilities, and the financial viability of their new venture.

**Prerequisites** Completion of the MBA core curriculum or approval of the Director of MBA Programs.

### **MGT 710 - New Venture Creation**

Credits 3

Concerned with development of the business tools and skills necessary to successfully create an entrepreneurial venture. Focus includes evaluation of new venture opportunities, obtaining capital and other resources, personnel issues, business operations, and legal considerations. Students will prepare and present a business plan.

**Prerequisites** Admission to the MBA Program and MBA 710.

### **MGT 711 - Seminar in Negotiation**

Credits 3

Enhances students' abilities to use negotiation as a tool for managing conflict, making deals, and making team decision. Examines important aspects of the negotiation process, including preparations, strategies and tactics, international issues, the role of third parties, and ethical issues.

**Prerequisites** Completion of MBA core curriculum or approval of the Director of MBA Programs.

### **MGT 712 - Change Management**

Credits 3

Change management is the process of transforming an organization's operations to enhance individual and organizational effectiveness. Both the rate of change and its importance to senior management seem to be accelerating. Examines competing models of change, considers various change methodologies,

and explores examples of best practice.

**Prerequisites** Completion of MBA core curriculum or approval of the Director of MBA Programs.

MGT 740 - Foundations of Human Resources  
Credits 3

Foundations of Human Resources.

**Notes** Cannot be repeated for credit.

**Grading** Letter Grade.

MIS 740 - Software Concepts  
Credits 3

First course in programming for non-programmers aimed at developing a proficiency in designing and writing programs using a high-level programming language. Topics include standard programming constructs (conditionals, loops, etc.), concept of an algorithm, and fundamental data types (numbers, strings, arrays, etc.).

**Prerequisites** Admission to a graduate program in MIS or consent of the Director of MIS Graduate Programs.

MIS 742 - Systems Design and Development  
Credits 3

Covers both systems analysis and design and modern database concepts. Introduces basic systems analysis and design tools and techniques used to analyze business processes and data flows. Also focuses on the relational database model and principles of good database design.

**Prerequisites** Completion of the core MBA curriculum or approval of the Associate Dean.

MIS 744 - Information Systems Planning & Strategy  
Credits 3

Familiarizes students with aspects of developing, implementing and evaluating strategic plans for corporate information systems as a competitive tool; using methods and frameworks for strategic analysis; assisting in establishing an information systems strategy; developing an understanding of change management issues in IS planning for organizations.

**Prerequisites** Admission to a graduate program in MIS or consent of the Director of MIS Graduate Programs.

MIS 746 - Information Systems Project Management  
Credits 3

Conceptual material on project management

techniques. Planning, organizing and controlling of projects in manufacturing and service organizations. Includes project management process, project scheduling, project resource management, schedule duration risk analysis and management of project.

**Prerequisites** Admission to a graduate program in MIS or consent of the Director of MIS Graduate Programs.

MIS 748 - Social and Economic Impacts of Information Technology  
Credits 3

The impact of IT on post- industrial management, productivity, personnel, privacy, competitive advantage, innovation, organizational design, organizational intelligence, decision-making, individual learning, and communication. Students prepare term papers on the impact of information technology on specific industries, depending on their career path interests.

**Prerequisites** MBA 773

MIS 752 - Advanced Topics in MIS  
Credits 1-3

Advanced or specialized study in a special topic or subject area in information systems.

**Notes** May be repeated with different subject matter to a maximum of six credits.

**Prerequisites** Admission to a graduate program in MIS or consent of the Director of MIS Graduate Programs.

MIS 753 - Independent Study  
Credits 3 – 6

Independent study under the direction of a faculty advisor of a topic in information systems.

**Notes** May be repeated for credit.

**Prerequisites** Admission to a graduate program in MIS or consent of the Director of MIS Graduate Programs.

MIS 755 - Internship  
Credits 3

Supervised practical experience with a participating enterprise or government agency, culminating in a written report.

**Notes** May be repeated to a maximum of six credits.

**Grading** S/F grading only.

**Prerequisites** MS MIS program admission

MIS 760 - Data Communications and Systems  
Credits 3

Concepts, models, architectures, protocols, standards, and security for the design, implementation, and management of digital networks. Essentials of local area networks (LAN), metropolitan area networks (MAN), and wide area networks (WAN).

Transmission and switching efficiency, and regulatory and technical environments. Topics include: security and authentication, operating systems, e-commerce etc.

**Prerequisites** Admission to a graduate program in MIS or consent of the Director of MIS Graduate Programs.

MIS 762 - Systems Analysis, Modeling and Design  
Credits 3

Systems development life cycle, analysis and design techniques. Information systems planning, project identification and selection, requirements collection and structuring, process modeling, data modeling. Design of interface and data management, system implementation and operation, system maintenance, and change management. Rapid application development and prototyping.

**Prerequisites** Admission to a graduate program in MIS or consent of the Director of MIS Graduate Programs.

MIS 764 - Advanced Web Development and Electronic Commerce  
Credits 3

Integration of technology and commercial practices for doing business on the Internet. Business and social implications of emergence of electronic commerce in cyberspace. Technological and organizational issues. Introduction to and application of advanced tools and techniques in the development of commercial-quality web sites.

**Prerequisites** Admission to a graduate program in MIS or consent of the Director of MIS Graduate Programs.

MIS 766 - Data Management  
Credits 3

Concepts, principles, issues and techniques for managing corporate data resources. Techniques for managing design and development of large database systems including logical data models, concurrent

processing, data distribution, database administration, data warehousing, data cleansing, and data mining.

**Prerequisites** Admission to a graduate program in MIS or consent of the Director of MIS Graduate Programs.

MIS 768 - Java Programming  
Credits 3

Java programming language, platform, software delivery environment, internet commerce environment, applications vs. applets/services, Java APIs and extensions, paradigms in information systems, network computers, security and future directions.

**Prerequisites** MIS 740

MIS 770 - IS Security, Audit and Control  
Credits 3

Investigates broad selection of contemporary issues in computer security, including an assessment of state-of-the-art approaches used to address security problems. Integration with organizational/informational systems audit, computer information systems, and management practices.

**Prerequisites** Admission to a graduate program in MIS or consent of the Director of MIS Graduate Programs.

MIS 772 - Advanced Information Systems  
Credits 3

Technical and managerial issues in the effective development and use of decision support systems (DDS) from three distinct approaches: data, intelligence and groups. Extensive hands-on exercises with state-of-the-art software. Exposure to current industry best practices.

**Prerequisites** MBA 773

MIS 773 - Research Seminar in Information Systems  
Credits 3

Survey a range of historic and current research in IS to understand current problems of interest to IS researchers and methods used to address them. A major deliverable for the course will be a proposal for a thesis research project.

**Prerequisites** Admission to a graduate program in MIS or consent of the Director of MIS Graduate Programs.

### MIS 774 - IT Outsourcing

Credits 3

This course will focus on the sourcing issues relevant to information systems development and integration in organizations. Topics will include vendor selection, vendor evaluation, negotiation, risk mitigation, contract implementation, partnership, intellectual property, integration, retention, social influences, critical success factors, and offshoring.

**Prerequisites** MBA 773.

### MIS 775 - IT Architecture for Business

Credits 3

How IT Architecture can meet corporate information system needs. Topics include system scaling, architecture design, enterprise integration, service-oriented architectures, web services, agile application development, corporate IT security, disaster recovery, cost of ownership, and others. Students apply concepts using IBM system i.

**Prerequisites** MIS 762 or Instructor Consent.

### MIS 776 - Business Intelligence

Credits 3

Business intelligence refers to the set of technologies and tools that enable organizations to integrate, store, analyze, and report data for the purpose of obtaining competitive advantage. Students will be exposed to key components of business intelligence applications, including defining data structure, analyzing cubes, data mining, and reporting.

**Prerequisites** MIS 766 or Instructor Consent

### MIS 777 - Project Feasibility Study and Proposal

Credits 3

Mastery of methods and techniques required to propose new systems for processes, applications and products, including idea generation, data collection, analysis, project proposals, client presentations, sourcing and vendor negotiation. Emphasis on data collection techniques, including structured and unstructured individual and group interviews, survey questionnaires, observation, and document analysis.

**Prerequisites** Admission to a graduate program in MIS or consent of the Director of MIS Graduate Programs.

### MIS 778 - Technology Innovation and Feasibility Analysis

Credits 3

This course emphasizes a technology feasibility analysis. In conjunction with case study analysis and interaction with local entrepreneurs and business leaders, students will assess the technical merits, operational logistics, legal ramifications, consumer needs and demands, team skills and abilities, and the financial viability of a technological innovation.

### MIS 779 - Technology Venture Creation

Credits 3

The Technology Venture Creation course take students from the idea stage to the startup of a new technology based venture. The key output from the course will be a business plan for a new technology venture that can be taken to investors for funding.

**Prerequisites** MIS 778 or consent of instructor.

### MIS 780 - Thesis

Credits 3 – 6

A substantial piece of work demonstrating the use of research methods and presentation of research results. Students must complete twelve required credit hours before they can register for this course. This course is a six-credit hour thesis and is expected to take two semesters to complete. Completion of the thesis requires a successful defense.

**Notes** May be repeated to a maximum of eighteen credits.

**Prerequisites** MIS 773 with a minimum grade of B.



## Marketing and International Business

The Department of Marketing and International Business provides a professional orientation to education with course work emphasizing both the theory and the practice of Marketing and International Business. The Marketing degree strives to instill a marketing frame of reference in doing business; to develop an understanding and appreciation of how marketing interacts with the other aspects of an organization; and to establish a foundation of marketing knowledge that will best prepare majors and minors for careers in their chosen fields. Students are provided with the knowledge of business and marketing theory along with opportunities to apply that knowledge in simulated or real business situations.

Students with degrees in marketing obtain employment in a wide range of marketing-related fields, including retailing, product/brand management, advertising, distribution, international business, marketing research, purchasing, services marketing, sports marketing, hospitality, and sales management. Upon graduation, students are also prepared to enter programs for advanced degrees in such areas as business administration, public administration, law, economics, and hotel administration.

Every major industry has an increased global presence. The International Business program provides students with the analytical tools and conceptual knowledge to understand International Marketing, Finance, and Strategy. The International Business program prepares students for careers with multinational firms within the United States or with International organizations. Competency in a foreign language is a requirement of the program.

## Courses - Marketing and International Business

IB 787 - International Seminar

Credits 3

A field study that exposes students to the competitive environment of an international business in the EU, Asia, South America or other emerging markets. Students will visit selected organizations, operating outside the USA, to learn first-hand the businesses' processes and experience the socio-cultural elements of the selected country.

**Formerly** MGT 787

**Prerequisites** 12 hours of graduate course study or consent of the MIB department.

MKT 664 - Professional Sales Negotiations Strategies and Tactics

Credits 3

The theory, processes, and practices of sales negotiation, relationship building and conflict resolution. Develops an understanding of the marketing theories, strategies, and tactics of effective sales negotiation, conflict resolution, and relationship management.

**Same as**MKT 464 -- crosslisted

**Notes** May not be repeated for credit.

**Grading** Letter Grade

MKT 668 - Database Marketing

Credits 3

Theory, concepts, and skills associated with using databases to enhance marketing programs and build strong relationships with customers.

**Same as**MKT 468

**Notes** Course may not be repeated for credit.

**Grading** Letter Grade

MKT 673 - Business Marketing

Credits 3

Provide a thorough grounding in industrial or business-to-business marketing. While many of the concepts are similar to those used in consumer marketing, there are significant differences. This course will explore both the similarities and the differences.

**Notes** This course is crosslisted with MKT 473.

Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing

**MKT 711 - Strategic Marketing Management**  
Credits 3

Development of effective strategic marketing analysis, planning, implementation, and control skills. Emphasis on market appraisal, industry structure, competitive advantage, product management, distribution strategy, promotion management, market segmentation, positioning strategies, and strategic marketing program decision making. Stresses case analysis and the solution of strategic marketing problems.

**Prerequisites** Graduate standing.

**MKT 720 - International Marketing Research**  
Credits 3

Design, analysis, interpretation, and communication of measurement and multivariate techniques to assess customer satisfaction, service quality and related marketing issues. Includes scaling, sampling, data collection, reliability, and validity.

**Prerequisites** Knowledge of statistics; graduate standing.

**MKT 725 - Global Consumer Behavior**  
Credits 3

This course examines global market segments, how to reach them, the consumer buying process across countries, and psychological and sociological variables which influence and motivate consumers. This course will broaden the understanding and evaluation of consumer behavior concepts as they pertain to domestic and global marketing strategies.

**Same as** IB 725

**Notes** Not repeatable for credit.

**Grading** Letter grade.

**MKT 737 - New Service and Product Development**  
Credits 3

New service and product development process. Evaluation of potential markets. Identification design, and development of new services and products consistent with customer needs. Idea generation, concept testing, test marketing and commercialization discussed.

**Prerequisites** Graduate standing.

**MKT 747 - Global Digital Marketing Strategies**  
Credits 3

This course explores the role of the internet in marketing strategy within the US and

worldwide. Digital marketing encompasses marketing using global digital channels to reach consumer. It extends beyond the internet to other forms of new media,. It includes online advertising social media, and search engine optimization.

**Same as** IB 747

**Notes** Nonrepeatable for credit.

**Grading** Letter Grade.

**MKT 757 - Strategic Database Marketing**  
Credits 3

Theory and practice of use of databases to enhance marketing programs and build customer relationships. Topics include: one on one marketing, relationship building strategies, customer cloning, RFM, calculating lifetime value of customers, modeling tools and processes, customization of offers and retention strategies.

**Prerequisites** Graduate standing.

**MKT 777 - Services Marketing**  
Credits 3

Marketing problems and strategies specific to service industries. Differences in the marketing of intangibles and services. Emphasis on services in general, rather than any particular industry. Concepts applied to such service of the art information for marketing in today's changing environment. Key topics include: competitive advantage, segmentation, relationship development, and competitive positioning.

**Prerequisites** Graduate standing

**SCM 674 - Purchasing and Global Sourcing**  
Credits 3

Principles of purchasing, public procurement, contract management, and global sourcing. Topics include the purchasing process, procurement in profit and non-profit organizations, buyer-supplier relationship, price determination, purchasing services, supply law and ethics, and global sourcing.

**Prerequisites** Graduate standing.

## College of Education

The College of Education is committed to creating an intellectual environment that promotes quality instruction, significant research, and professional service. Particular attention is focused on preparing professionals for diverse educational settings and on contributing to educational and pedagogical knowledge through scholarly endeavors. The College provides leadership in both the art and science of educational practice. Furthermore, the College is committed to creating an inclusive learning environment that values and promotes diversity. Collaboration among students, faculty, other professionals, and community members is essential to the College in achieving its goals. Integral to the mission is a dedication to being a premier college of education that serves our dynamic and expanding community, the state, the region, and the nation.

The College of Education provides dynamic graduate programs that engage students in field-based practice and research, offering students an exciting opportunity to study at a nationally recognized university situated within one of the fastest growing cities and school districts in the country.

Graduate programs in the College of Education include master, educational specialist, and doctoral degrees as well as post-baccalaureate programs for initial teacher licensure and additional endorsement to licensure. These programs are available in the departments of Educational & Clinical Studies, Educational Psychology & Higher Education, and Teaching & Learning. The College of Education has an outstanding graduate faculty who are nationally recognized for their scholarship and leadership in their respective disciplines.

The College of Education is accredited by the Northwest Commission on Colleges and Universities (NWCCU), which is an independent, non-profit membership organization recognized by the U.S. Department of Education as the regional authority on educational quality and institutional effectiveness of higher education institutions in the seven-state Northwest region of Alaska, Idaho, Montana, Nevada, Oregon, Utah, and Washington. It fulfills its mission by establishing accreditation criteria and

evaluation procedures by which institutions are reviewed. The COE is also accredited by the National Association of School Psychologists, and the Council for the Accreditation of Counseling and Related Educational Programs. The COE is also accredited by the State of Nevada.

*Kim K. Metcalf, Ph.D., Dean, College of Education*  
*Cyndi Giorgis, Ph.D., Associate Dean*  
*Gregory Schraw, Ph.D., Associate Dean*

## **Educational Psychology and Higher Education**

The Department of Educational Psychology and Higher Education is dedicated to the advancement and application of knowledge about human behavior with an emphasis on educational settings. This dedication is reflected in our 2006 ranking in the top 20 among specialty programs in educational psychology by U.S. News & World Report. We focus on the educational process as it occurs at every level from home and nursery school through graduate school to business, industry and the military.

*LeAnn G. Putney, Chair*

*Steven McCafferty, Graduate Coordinator*

## **Educational Psychology and Higher Education Faculty**

### **Chair**

**Putney, LeAnn G.** - *Full Graduate Faculty*  
Professor; B.A., Indiana State University; M.S., California State University; Ph.D., University of California, Santa Barbara. *Rebel since 1997.*

### **Graduate Coordinator**

**McCafferty, Steven** - *Full Graduate Faculty*  
Professor; B.A., California State University; M.A., University of Hawaii; Ph.D., University of New Mexico. *Rebel since 1995.*

### **Graduate Faculty**

**Bendixen, Lisa** - *Full Graduate Faculty*  
Associate Professor; B.A., Creighton University; M.A., Ph.D., University of Nebraska-Lincoln. *Rebel since 1999.*

**Bernacki, Matthew** - *Full Graduate Faculty*  
Assistant Prof; M.A Temple University, M.A St Josephs University, Ph.D. Temple University. *Rebel since 2013*

**Corkill, Alice Jane** - *Full Graduate Faculty*  
Associate Professor; B.A., M.A., Ph.D., University of Nebraska. *Rebel since 1992.*

**Kardash, CarolAnne M.** - *Full Graduate Faculty*  
Professor; B.A., Le Moyne College; M.S., College of St. Rose; Ph.D., Arizona State University. *Rebel since 2001.*

**Loe, Scott A.** - *Full Graduate Faculty*  
Associate Professor; B.S., Arizona State University; M.A., Ph.D., The Ohio State University. *Rebel since 2003.*

**Lough, Nancy L.** - *Full Graduate Faculty*  
Professor; B.A., Adams State College; M.Ed., Stephen F. Austin State University; Ed.D., University of Northern Colorado. *Rebel since 2006.*

**Marchand, Gwen** - *Full Graduate Faculty*  
Assistant Professor; B.A., Rockhurst University;

M.S., Ph.D., Portland State University. *Rebel since 2008.*

**Nathanson, Rebecca** - *Full Graduate Faculty*  
Associate Professor; B.A., University of California, Los Angeles; M.A., Ph.D., University of California, Santa Barbara. *Rebel since 2000.*

**Nussbaum, E. Michael** - *Full Graduate Faculty*  
Professor; B.A., Pitzer College; M.P.P., University of California, Berkeley; Ph.D., Stanford University. *Rebel since 1999.*

**Raines, C. Tara** - *Full Graduate Faculty*  
Assistant Professor; B.A., M.A., The Florida State University; M.S., Psy.S., Nova Southeastern University; Ph.D., Georgia State University. *Rebel since 2012*

**Relles, Stefani** - *Full Graduate Faculty*  
Assistant Professor; B.A. Northwestern University, M.Ed. University of New Hampshire, Ph.D. University of Southern California. *Rebel since 2013*

**Rosser, Vicki J.** - *Full Graduate Faculty*  
Professor; B.A., University of Hawai'i, West O'ahu; M.Ed., Ph.D., University of Hawai'i, Manoa. *Rebel since 2006.*

**Watson, Doris L.** - *Full Graduate Faculty*  
Professor; B.A., Adams State College; M.S., Colorado State University; M.A., Adams State College; Ph.D., University of New Mexico. *Rebel since 2005.*

### **Director of the Center for Research, Cognition, and Assessment**

**Schraw, Gregory** - *Full Graduate Faculty*  
Professor; B.A., University of Illinois; M.S., Ph.D., University of Utah. *Rebel since 2000.*

## Graduate Certificate in Higher Education

### Plan Description

The graduate certificate in Higher Education targets full or part-time graduate students who may not have studied higher education through any formal degree program but wish to develop a deeper understanding of higher education. In particular doctoral students enrolled in other disciplines who plan to enter the academy as tenure track faculty members, as well as current administrative professionals who already possess an undergraduate degree and have 2-3 years full-time experience in higher education, may also benefit from this experience. Hours earned for the certificate may be applied to a degree program in higher education at the masters or doctoral levels. Hours earned in the masters or doctorate programs in higher education may NOT be used toward the certificate.

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

A qualified student, who wishes to enter UNLV to obtain the graduate certificate in higher education without being enrolled in a degree program, may apply for graduate admission to the Graduate College via the ApplyYourself (AY) system. All minimum Graduate College requirements MUST be met. Once accepted to UNLV, students must also complete and submit the Graduate Certificate in Higher Education application.

Doctoral and masters level students who are admitted to and pursuing other disciplines are eligible for the certificate program in higher education. Students must complete and submit the Graduate Certificate in Higher Education application.

Enrollment may be limited based on class size. Students must earn a B or better in all courses. Certificates will be awarded upon the student's successful completion of the certificate requirements. Application may be submitted at any time during an academic term. Accepted students can begin taking classes the follow term of acceptance

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 15

Course Requirements

#### **Core – Credits: 12**

Complete 12 hours from the following courses:

EDH 607 - Leadership Development Seminar  
EDH 609 - Leading Diverse Organizations  
EDH 627 - Student Learning and Development  
EDH 703 - History of American Higher Education  
EDH 710 - Finance and Budgeting in Higher Education  
EDH 715 - Theory of Educational Organizations  
EDH 733 - The Professorate  
EDH 738 - Public Policy in Higher and Post-Secondary Education  
EDH 742 - Academic Governance in Higher Education  
EDH 780 - Seminar: Teaching in Higher Education

#### **Electives Course – Credits: 3**

Complete a minimum of 3 hours from the following courses:

EDH 603 - Sport in Higher Education  
EDH 705 - HE Law-Doctoral  
EDH 708 - The American Community College  
EDH 750 - Special Topics in Higher Education

Certificate Requirements

Student must complete a minimum of 15 credit hours with a minimum GPA of 3.00.

### **Plan Certificate Completion Requirements**

## Doctor of Philosophy - Educational Psychology

### Plan Description

The Educational Psychology Ph.D. is designed to provide advanced studies in educational psychology with three primary strands: 1) Educational psychology with specialty area emphases in educational assessment, program evaluation, research, and learning in school domains, 2) School Counselor Education, and 3) School Psychology. This program will provide opportunities for students to become independent scholars who are able to make significant contributions to knowledge in specialized areas of educational psychology where both regional and national need for trained professionals has been identified.

The three strands in the program focus on the outcomes and processes that promote more effective learning in school based and related applications. Students in all strands will take core courses in: 1) research methods and statistics, 2) learning and cognition, and 3) advanced studies in a domain of school curriculum, school counselor education, or school psychology. All students will be actively involved in research and research-related activities throughout their program of study. The program will prepare students for a variety of professional careers related to teaching, research, and professional practice in both academic and nonacademic settings. For example, students will be prepared to fill faculty, research, or assessment positions at academic institutions, such as universities, community colleges, and K-12 school districts.

Representative occupations include educational psychologist, program evaluator, director of school counseling, school counselor educator, educational assessment coordinator, school psychologist, and employee training specialist. Graduates from the school psychology specialization strand can find employment in universities, public and private schools, and as mental health service providers in agencies and private practice.

**For more information about your program, including your graduate program handbook and**

**learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Admission will be limited to the most qualified applicants based on a combination of the following:

1. An undergraduate grade point average of 3.00 or above.
2. If graduate course work has been completed, a graduate grade point average of 3.00 or above.
3. Preference given to scores that relate to the 50th percentile or better on the verbal and quantitative sections of the Graduate Record Examination (GRE).
4. A score of 600 or above on the Test of English as a Foreign Language (TOEFL) is also required for students who do not speak English as their language.
5. Three letters of reference from university faculty or other individuals qualified to judge the applicant's academic potential.
6. The applicant's statement of professional interests and goals.
7. A scholarly or professional writing sample.
8. Graduate College application is available online. Applications for admission will be considered once a year. The deadline for the receipt of applications is February.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

#### *Foundations Track*

Students must have a master's equivalent degree to be considered for admission.

#### *School Counselor Track*

Students must have a master's degree in a school counseling program accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) or must have completed the substantial equivalent of such program. Students with degrees in other counseling specialties will be

considered for admission with the understanding that additional course work will be required as part of their doctoral programs.

#### *School Psychology Track*

Students must have a bachelor's degree. Many students admitted for this strand have completed their Ed.S. from a NASP-approved program, or its equivalent, as evidence of the knowledge base of a professional school psychologist. Students without this foundation are considered for admission with understanding that their programs of study will include content from our Ed.S. program.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

#### **Plan Requirements**

*See Subplan Requirements Below.*

#### **Subplan 1 Requirements: Foundations Track**

Total Credits Required: 67

Course Requirements

#### **Proseminar Course – Credits: 1**

EPY 701 - Proseminar in Educational Psychology

#### **Research Methods Courses – Credits: 15**

EPY 718 - Qualitative Research Methodologies

EPY 719 - Advanced Qualitative Research

EPY 722 - Inferential Statistics and Experimental Design

EPY 723 - Theory and Practice of Human Measurement I

EPY 732 - Multiple Regression and Path Analysis

#### **Learning Theory Courses – Credits: 9**

EPY 757 - Theory and Philosophy of Educational Psychology

EPY 767 - Human Learning and Cognition

EPY 777 - Cognitive Development

#### **Specialization Courses – Credits: 18**

EPY 733 - Multivariate Statistics

and

One of the following 3 courses

EPY 728 - Applied Classroom Research

EPY 729 - Qualitative Case Study Research

EPY 738 - Discourse Analysis

and

Complete 12 credits of advisor-approved coursework within your specified area of focus.

#### **Emphasis Area Courses – Credits: 12**

Complete 12 credits of advisor-approved coursework within an area of emphasis.

#### **Dissertation – Credits: 12**

EPY 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 2 Requirements: School Counselor Track**

Total Credits Required: 67

Course Requirements

#### **Proseminar Course – Credits: 1**

EPY 701 - Proseminar in Educational Psychology

#### **Research Methods Courses – Credits: 12**

EPY 718 - Qualitative Research Methodologies

EPY 722 - Inferential Statistics and Experimental Design

EPY 723 - Theory and Practice of Human Measurement I

EPY 730 - Advanced Research Methods



**Additional Research Methods Course – Credits: 3**

Complete one of the following courses:

- EPY 716 - Evaluation Research Methods
- EPY 719 - Advanced Qualitative Research
- EPY 724 - Theory and Practice of Human Measurement II
- EPY 733 - Multivariate Statistics
- EPY 787 - Individual Research (3 credits)
- EPY 790 - Research Seminar in EPY (3 credits)

**Learning Theory Courses – Credits: 9**

- EPY 757 - Theory and Philosophy of Educational Psychology
- EPY 767 - Human Learning and Cognition
- EPY 777 - Cognitive Development

**Specialization Courses – Credits: 18**

Complete 18 credits of advisor-approved coursework within your specified area of focus.

**Emphasis Area Courses – Credits: 12**

Complete 12 credits of advisor-approved coursework within an area of emphasis.

**Dissertation – Credits: 12**

EPY 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 3 Requirements: School Psychology Track**

Total Credits Required: 67

Course Requirements

**Proseminar Course – Credits: 1**

EPY 701 - Proseminar in Educational Psychology

**Research Methods Courses – Credits: 12**

EPY 718 - Qualitative Research Methodologies  
EPY 722 - Inferential Statistics and Experimental Design

EPY 723 - Theory and Practice of Human Measurement I

EPY 730 - Advanced Research Methods

**Additional Research Methods Course – Credits: 3**

Complete one of the following courses:

- EPY 716 - Evaluation Research Methods
- EPY 719 - Advanced Qualitative Research
- EPY 724 - Theory and Practice of Human Measurement II
- EPY 733 - Multivariate Statistics
- EPY 787 - Individual Research (3 credits)
- EPY 790 - Research Seminar in EPY (3 credits)

**Learning Theory Courses – Credits: 9**

- EPY 757 - Theory and Philosophy of Educational Psychology
- EPY 767 - Human Learning and Cognition
- EPY 777 - Cognitive Development

**Specialization Courses – Credits: 18**

Complete 18 credits of advisor-approved coursework within your specified area of focus.

**Emphasis Area Courses – Credits: 12**

Complete 12 credits of advisor-approved coursework within an area of emphasis.

**Dissertation – Credits: 12**

EPY 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Plan Degree Requirements**

1. Student must successfully complete a minimum of 67 credit hours while

maintaining a grade point average of 3.00 or better in the program and a grade of B or better in core course work.

2. Of the 67 credits, 18 must be in coursework tailored for the area of focus in the strand.
3. Of the 67 credits, 25 are in courses shared with other doctoral programs in the department.
4. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Specific specialization courses in the assessment, program evaluation, research, and learning in school domains strands are determined by the student in consultation with her or his committee.
6. In addition to the required specialization courses, each student, in consultation with advisor and doctoral committee, selects an individual emphasis area and determines the specific courses to be completed.
7. Each student must satisfy a scholarly paper requirement by the time he or she has completed 36 credits (Review I). The student must be primarily responsible for carrying out and reporting a study under the supervision of a program faculty member. The requirement may be fulfilled in one of two ways. First, the study may involve the collection and analysis of some empirical data (for example, a pilot study) resulting in a scholarly paper that is submitted to either a professional journal or as a proposal to an annual conference of a national organization. Second, the paper may consist of a literature review that is submitted for publication in a quality, peer-reviewed journal or submitted for presentation at a national conference. Prior to beginning, projects must be approved by a supervising faculty member. Once completed, students

must submit to the program coordinator(s): (a) a copy of the paper, (b) a submission acknowledgment, and (c) a completed Review I form from the supervising faculty member.

8. Each student must take the preliminary examination (Review II). This second formal assessment, typically completed during the last semester of formal classwork, is an examination that will focus on areas of knowledge that are most relevant to the student's proposed dissertation topic. The student and his/her committee will determine the content of this examination format in that it will focus on in-depth reading and writing directly related to the student's proposed dissertation topic as well as on the student's mastery of previously learned core information.
9. After successfully completing Review I (i.e., satisfying the scholarly product requirement) and Review II (i.e., passing the preliminary examination), students can then submit a formal dissertation proposal to their doctoral committee and submit the accompanying "Dissertation Prospectus" form to the Graduate College. The doctoral committee will meet and determine whether to accept or reject the prospectus. A prospectus can be accepted provisionally given that the student follows the committee's suggestions in the dissertation. Upon completion of the full dissertation, a defense will be scheduled. This defense will be scheduled and conducted in accordance with the Graduate College's policies for thesis and dissertation completion. It is the student's responsibility to file the required "Notification of Oral or Written Examination" form with the Graduate College in a timely manner.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted

deadline. The defense must be advertised and is open to the public.

3. The student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Doctor of Philosophy - Higher Education

### Plan Description

The Doctor of Philosophy – Higher Education is grounded in the concept that successful higher educational leaders must be well-informed and context sensitive professionals who make theory based, research supported, and data driven decisions.

The primary objectives of the program are to:

1. Prepare students for administrative positions in community colleges, four year colleges, universities, and other public and private learning and policy environments;
2. Prepare individuals for faculty positions in higher education; and
3. Assist doctoral students in the development of skills in assessment and evaluation, research design, and quantitative and qualitative methodologies appropriate for leadership roles as faculty or administrators in higher and postsecondary education.

Students can elect to specialize in any of three emphasis areas: higher education leadership, including university and community college leadership; higher education policy and planning; and student affairs leadership.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Entrance to the Ph.D. program requires candidates to complete three steps. Current are posted on the website .

Minimum admission requirements for UNLV's Graduate College include:

1. Completed application for admission and the nonrefundable application fee;
2. One copy of official transcripts from all institutions attended after high school, including verification of a master's degree from an accredited college or university.

More information is available on the Graduate College website .

Additional materials each candidate must also upload with the application:

1. Personal Statement of Professional Aspirations;
2. A professional resumé or vita;
3. Verification of experience in higher education or related field;
4. Scores from the Graduate Record Exam (GRE), the Graduate Management Admission Test (GMAT) or the Law School Admissions Test (LSAT). Score should be no more than five years old;
5. Two letters of nomination/ professional reference;
6. Evidence of writing ability; see the website for specifics.

In the final step after reviewing all material, a select number of candidates will be invited for an interview with department faculty. The interview enables candidates to demonstrate their oral communication skills, commitment to continuing professional development, and to show their leadership, learning, and educational philosophy. Final admission will be based on evaluation of all application materials, including the interview.

For specific information on the Department Educational Psychology & Higher Education's Higher Education Ph.D. programs, please visit the website. Applicants interested in receiving a graduate assistantship must complete the Graduate Assistantship Application found on the Graduate College website . Potential students should also inform the program or doctoral admissions coordinator of their interest in the program.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 72

Course Requirements

### **Required Core Courses – Credits: 15**

EDH 703 - History of American Higher Education  
 EDH 710 - Finance and Budgeting in Higher Education  
 EDH 715 - Theory of Educational Organizations  
 EDH 738 - Public Policy in Higher and Post-Secondary Education  
 EDH 705 - HE Law-Doctoral  
 Or  
 EDH 742 - Academic Governance in Higher Education

### **Required Research Courses – Credits: 12**

EDH 707 - Designing & Critiquing Research In Education  
 EPY 716 - Evaluation Research Methods  
 EPY 722 - Inferential Statistics and Experimental Design  
 EPY 718 - Qualitative Research Methodologies

### **Research Elective Courses – Credits: 6**

Complete two of the following courses in consultation with your program of study chair.

EPY 719 - Advanced Qualitative Research  
 EPY 729 - Qualitative Case Study Research  
 EPY 732 - Multiple Regression and Path Analysis  
 EPY 733 - Multivariate Statistics

### **Specialization Courses – Credits: 21**

Complete 21 credits from the following courses in consultation with your program of study chair.

EDH 607 - Leadership Development Seminar  
 EDH 609 - Leading Diverse Organizations

EDH 618 - Facilities Management and Campus Planning  
 EDH 619 - Institutional Advancement  
 EDH 624 - Readings in Student Personnel Issues  
 EDH 706 - Current Issues in Higher Ed  
 EDH 708 - The American Community College  
 EDH 732 - Readings in Administration of Higher Education  
 EDH 733 - The Professorate  
 EDH 737 - Ethical Dimensions of Higher Education Leadership  
 EDH 739 - Organization Change & Innovation in Higher Education  
 EDH 740 - Comparative and International Higher Education  
 EDH 742 - Academic Governance in Higher Education  
 EDH 745 - Institutional Planning in Higher Education  
 EDH 750 - Special Topics in Higher Education  
 EDH 780 - Seminar: Teaching in Higher Education  
 EDH 791 - Doctoral Independent Study

**Internship Course – Credits: 3**

EDH 790 - Doctoral Internship

**Prospectus Course – Credits: 3**

EDH 796 - Dissertation Proposal Preparation

**Dissertation – Credits: 12**

EDH 799 - Dissertation

**Degree Requirements**

1. Students must complete a minimum of 72 credit hours of approved course work with a minimum GPA of 3.00.
2. Students without a background in statistics may take EPY 721 – Descriptive/Inferential Statistics, but the course will not count as credits toward the doctoral program.
3. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member

may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

4. The doctoral comprehensive examination consists of two parts: A core examination and an individualized examination. Part I: Core examination:
  - a. The core examination is offered twice a year (usually September and February). Students should take this examination as early in their programs as possible. Students are eligible to the Comprehensive Examinations if they have passed all core courses with a "B-" or better. No student with anything less than a "B-" in any core course will be allowed to take the Comprehensive Examination. A core course may be repeated, allowing the student an opportunity to earn a "B-" or better.
  - b. To be eligible to sit for this examination, students must have completed the required core courses, the required research courses, and the methodology course.
  - c. Each section of the comprehensive examination is taken over a two week period.
  - d. Section One: Covers research design. It draws heavily on EDH 707 and the research core. Students are encouraged to integrate information from other methods courses into their answers. Information about this question is provided to students prior to the examination.
  - e. Section Two: Affords student the opportunity to integrate basic historical, organizational, financial/economic, policy, and legal perspectives into a discussion of one or more current issues. Faculty members will meet with students prior to distributing this

- question to talk about specific, appropriate issues that may be addressed in this section of the exam.
- f. The evaluation rubric is available for download from the department website. Students who do not pass a section of the comprehensive exams meet with their current advisor to discuss options and potential remedies.
  - g. The purpose of the individualized examination is to help students fill in gaps in their knowledge base and to help them move forward into the dissertation stage of the program.
5. All students are required to engage in an internship experience. Each internship is an individually designed, semester-long experience that can be repeated for credit for up to a maximum of 6 hours. Ordinarily, the internship is completed after the student has successfully passed the core comprehensive examination. There are three types of internships for doctoral students: Administrative, Teaching, and Research.
    - a. Administrative internships enable students to apply theory to practice. Internship placements are available in a variety of professional settings including UNLV, the Community College of Southern Nevada, Nevada State College, the Nevada System of Higher Education administrative departments, as well as in neighboring institutions of higher education and government policy and business environments. These are challenging experiences in which students are expected to make meaningful contributions that advance the goals of the host site.
    - b. Teaching internships are done under the aegis of a faculty member. Doctoral teaching assistants may team with a faculty member in a Master's course or teach undergraduate courses.
      - c. Research internships are usually done with the student's doctoral chair. These internships allow students to team with a faculty member on a research-based project, which may entail design, data collection, analysis, or writing.
  6. Students must complete the residency requirement. Residency requirements are met following the completion of 42 credit hours, the comprehensive examinations, and by completing these outcomes:
    - a. Completion of remaining course work, including research courses and electives.
    - b. Combination of doctoral internships and/or independent studies, as advised by student's doctoral advisor.
    - c. Successful completion of EDH 790 – Doctoral Internship and EDH 796 –Dissertation Proposal Preparation.
    - d. Completion of a national presentation and/or a manuscript submitted for publication consideration.
  7. Students may use three credits of dissertation hours (EDH 799) towards their residency.
  8. Residency requirements must be fulfilled prior to the dissertation proposal defense. Students must review an outcomes checklist with their advisors prior to the proposal defense to verify completion of residency. Upon completion of residency students should have 9 to 12 dissertation credits remaining in the program of study.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.

3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Doctor of Philosophy - Learning & Technology

### Plan Description

The Learning and Technology Ph.D. is an academic program with an emphasis on the assessment and understanding of learning outcomes and processes in technology-rich learning environments and in modifying those environments in ways that promote more effective learning. Students take a common core of courses in three specialty areas: research methods and statistics, learning and cognition theory, and technology.

The overarching goal of the program is to prepare students to become independent scholars who will contribute to the advancement of the discipline of educational psychology and the field of educational technology. Graduates of the program will be prepared for a variety of professional positions (e.g., university and community college faculty positions, educational psychologists, learning and technology specialists, employee training specialists, program evaluators, educational technology coordinators, and instructional technology specialists).

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Admission will be limited to the most qualified applicants based on a combination of the following:

1. An undergraduate grade point average of 3.00 or above.
2. If graduate course work has been completed, a graduate grade point average of 3.00 or above.
3. Preference given to students whose scores relate to the 50th percentile or better on the verbal and quantitative sections of the Graduate Record Examination (GRE).

4. A score of 600 or above on the Test of English as a Foreign Language (TOEFL) is also required for students who do not speak English as their first language.
5. Three letters of reference from university faculty or other individuals qualified to judge the applicant's academic potential.
6. The applicant's statement of professional interests and goals.
7. Graduate College application is available online.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 67  
Course Requirements

### **Required Courses – Credits: 4**

EPY 701 - Proseminar in Educational Psychology  
CIT 778 - Instructional Design

### **Core Research Courses – Credits: 12**

EPY 718 - Qualitative Research Methodologies  
EPY 722 - Inferential Statistics and Experimental Design  
EPY 723 - Theory and Practice of Human Measurement I  
EPY 732 - Multiple Regression and Path Analysis

### **Additional Research Course – Credits: 3**

Complete one of the following courses:

EPY 716 - Evaluation Research Methods  
EPY 719 - Advanced Qualitative Research  
EPY 724 - Theory and Practice of Human Measurement II  
EPY 726 - Advanced Evaluation Research Methods  
EPY 729 - Qualitative Case Study Research

EPY 733 - Multivariate Statistics  
EPY 738 - Interpretive Analysis of Text and Discourse  
EPY 745 - Categorical/Nonparametric Data Analysis  
EPY 746 - Multilevel Statistical Models: Theory and Application  
EPY 747 - Large Scale Secondary Data Analysis

### **Learning Courses – Credits: 9**

EPY 757 - Theory and Philosophy of Educational Psychology  
EPY 767 - Human Learning and Cognition  
EPY 777 - Cognitive Development

### **Technology Course – Credits: 3**

CIT 770 - Advanced Seminar in Educational Technology Research

### **Multimedia Course – Credits: 6**

CIT 780 - Multimedia Learning Studio

### **Elective Courses – Credits: 18**

Student must take a minimum of 18 credit hours of learning and/or technology elective courses from the following list of courses, or other advisor-approved courses.

Illustrative learning elective courses include but are not limited to:

EPY 768 - Problem Solving, Reasoning, and Expertise  
EPY 770 - Cognition and Instruction  
EPY 787 - Individual Research (1-3 credits)  
EPY 789 - Seminar in Learning and Cognition  
EPY 791 - Special Topics in Educational Psychology  
PSY 703 - Cognitive Psychology (3 credits)

Illustrative technology elective courses include but are not limited to:

CIT 608 - Integrating Technology in Teaching and Learning  
CIT 643 - Designing Digital Materials for Education  
CIT 647 - Creating Online Learning Environments  
CIT 648 - Issues and Methods in Online Learning  
CIT 653 - Creating Digital Materials for Education  
CIT 667 - Technology and Educational Change



CIT 669 - Advanced Web Design and Development for Educators

CIT 772 - Technology in Teacher Education

CIT 782 - Distance Education Issues and Trends

### **Dissertation – Credits: 12**

EPY 799 - Dissertation

#### Degree Requirements

1. Students must maintain a GPA of 3.00 or higher for all course work taken at the doctoral level.
2. Residence Credit Requirement: A minimum of 50 percent of the total credits required to complete the doctoral degree not including transferred and dissertation credits must be earned at UNLV after admission to the doctoral degree program.
3. Each student must satisfy a scholarly paper requirement by the time he or she has completed 36 credits (Review I). The student must be primarily responsible for carrying out and reporting a study under the supervision of a program faculty member. The requirement may be fulfilled in one of two ways. First, the study may involve the collection and analysis of some empirical data (for example, a pilot study) resulting in a scholarly paper that is submitted to either a professional journal or as a proposal to an annual conference of a national organization. Second, the paper may consist of a literature review that is submitted for publication in a quality, peer-reviewed journal or submitted for presentation at a national conference. Prior to beginning, projects must be approved by a supervising faculty member. Once completed, students must submit to the program coordinator(s): (a) a copy of the paper, (b) a submission acknowledgment, and (c) a completed Review I form from the supervising faculty member.
4. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the

Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

5. Students must successfully complete a preliminary examination. This formal assessment will focus on areas of knowledge that are most relevant to the student's dissertation topic. The student and his/her committee will determine the content of this examination. The student and his/her committee will determine the content of this examination format in that it will focus on in-depth reading and writing directly related to the student's proposed dissertation topic as well as on the student's mastery of previously learned core information.
6. After successfully completing the scholarly paper requirement and preliminary examination, students can submit a formal dissertation proposal to their doctoral committee and submit the accompanying "Prospectus Approval" form from the Graduate College. The doctoral committee will determine the acceptability of the prospectus. Upon completion of the dissertation, a defense will be scheduled and conducted in accordance with the Graduate College's policies for thesis and dissertation completion.

#### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Dual Degree: Doctor of Philosophy - Educational Psychology & Juris Doctor

### Plan Description

The Educational Psychology Program in coordination with the UNLV Boyd School of Law offers a dual JD/Ph.D. degree. The Educational Psychology Ph.D. is designed to provide advanced studies in educational psychology with two primary strands: 1) Educational psychology with specialty area emphases in educational assessment, program evaluation, research, and learning in school domains, and 2) School Psychology. This program will provide opportunities for students to become independent scholars who are able to make significant contributions to knowledge in specialized areas of educational psychology where both regional and national need for trained professionals has been identified.

The two strands in the program focus on the outcomes and processes that promote more effective learning in school based and related applications. Students in all strands will take core courses in: 1) research methods and statistics, 2) learning and cognition, and 3) advanced studies in a domain of school curriculum, school counselor education, or school psychology. All students will be actively involved in research and research-related activities throughout their program of study. The program will prepare students for a variety of professional careers related to teaching, research, and professional practice in both academic and nonacademic settings. For example, students will be prepared to fill faculty, research, or assessment positions at academic institutions, such as universities, community colleges, and K-12 school districts.

Representative occupations include educational psychologist, program evaluator, director of school counseling, school counselor educator, educational assessment coordinator, school psychologist, and employee training specialist. Graduates from the school psychology specialization strand can find employment in universities, public and private schools, and as mental health service providers in agencies and private practice.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applicants to the J.D./Ph.D. program must submit formal applications for admission to both the William S. Boyd School of Law and to the Graduate College. Students must meet the requirements for admission to both programs. Admission requirements are the same as those stated under the regular J.D. and Educational Psychology Ph.D. programs. Current are posted on the website.

A dual program candidate must complete the Graduate College, Law School and Educational Psychology Program admission processes in order to matriculate. Successful completion of the first year of law school is a precondition to commencement of work on the Ph.D. program and waives the Master's Degree prerequisite for entry to the program. A law school student may be admitted to the dual program by gaining admission to the Educational Psychology Ph.D. program after successful completion of the first year of law school with the consent of both programs.

Under the terms and conditions of the program the Law School has agreed to accept 9 credits of course work from the Educational Psychology Program toward the J.D. degree. The Educational Psychology Ph.D. Program has agreed to accept 12 credits of course work from the Law School toward the Ph.D. degree.

Students interested in the dual program should alert Graduate College admission personnel when commencing the admission process. Students interested in the Dual Degree Program should alert the Dual Degree Program Coordinator, Dr. Rebecca Nathanson, so that consultation on the admissions process can be initiated.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements Below.*

### **Subplan 1 Requirements: Foundations Track**

Total Credits Required: 135

Course Requirements

Total Credits Required for the Doctor of Philosophy – Educational Psychology: 55

#### **Proseminar Course – Credits: 1**

EPY 701 - Proseminar in Educational Psychology

#### **Research Methods Courses – Credits: 12**

EPY 718 - Qualitative Research Methodologies  
EPY 722 - Inferential Statistics and Experimental Design  
EPY 723 - Theory and Practice of Human Measurement I  
EPY 730 - Advanced Research Methods

#### **Additional Research Methods Course – Credits: 3**

Complete one of the following courses:

EPY 716 - Evaluation Research Methods  
EPY 719 - Advanced Qualitative Research  
EPY 724 - Theory and Practice of Human Measurement II  
EPY 733 - Multivariate Statistics  
EPY 787 - Individual Research  
EPY 730 - Advanced Research Methods

#### **Learning Theory Courses – Credits: 9**

EPY 757 - Theory and Philosophy of Educational Psychology  
EPY 767 - Human Learning and Cognition  
EPY 777 - Cognitive Development

### **Specialization Courses – Credits: 18**

Complete 18 credits of advisor-approved coursework within your specified area of focus.

#### **Dissertation – Credits: 12**

EPY 799 - Dissertation

Total Credits Required for the Juris Doctor: 80

### **Required Courses – Credits: 44**

#### **Directed Electives – Credits: 9**

#### **Free Electives – Credits: 27**

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 2 Requirements: School Psychology Track**

Total Credits Required: 135

Course Requirements

Total Credits Required for the Doctor of Philosophy – Educational Psychology: 55

#### **Proseminar Course – Credits: 1**

EPY 701 - Proseminar in Educational Psychology

#### **Research Methods Courses – Credits: 12**

EPY 718 - Qualitative Research Methodologies  
EPY 722 - Inferential Statistics and Experimental Design  
EPY 723 - Theory and Practice of Human Measurement I  
EPY 730 - Advanced Research Methods

#### **Additional Research Methods Course – Credits: 3**

Complete one of the following courses:

EPY 716 - Evaluation Research Methods  
EPY 719 - Advanced Qualitative Research  
EPY 724 - Theory and Practice of Human  
Measurement II  
EPY 733 - Multivariate Statistics  
EPY 787 - Individual Research  
EPY 790 - Research Seminar in EPY

### **Learning Theory Courses – Credits: 9**

EPY 757 - Theory and Philosophy of Educational  
Psychology  
EPY 767 - Human Learning and Cognition  
EPY 777 - Cognitive Development

### **Specialization Courses – Credits: 18**

Complete 18 credits of advisor-approved coursework  
within your specified area of focus.

### **Dissertation – Credits: 12**

EPY 799 - Dissertation

Total Credits Required for the Juris Doctor: 80

### **Required Courses – Credits: 44**

#### **Directed Electives – Credits: 9**

#### **Free Electives – Credits: 27**

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Degree Requirements**

1. Students must be admitted to both the J.D. and Ph.D. programs with graduate standing. The candidates must successfully complete the 80 credit hours of Law course work and 55 credit hours of the Ph.D. required course work.
2. William S. Boyd School of Law cannot award credit for any class taken before matriculation. J.D./Ph.D. candidates are required to enroll at the Boyd School of Law

and complete one year of study before taking any Ph.D. courses.

3. Students in the J.D./Ph.D. program must remain in good standing in both J.D. and Ph.D. programs.
4. Students must maintain a grade point average of 3.00 or better in the program and a grade of B or better in core course work.
5. Of the 55 credits, 18 must be in coursework tailored for the area of focus in the strand.
6. Of the 55 credits, 25 are in courses shared with other doctoral programs in the department.
7. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members and one law school representative. In addition, a fifth member from outside the department, known as the Graduate College Representative, must be appointed. The Dual Degree Program Coordinator will sit on all dissertation committees. Please see Graduate College policy for committee appointment guidelines.
8. Specific specialization courses in the assessment, program evaluation, research, and learning in school domains strands are determined by the student in consultation with her or his committee.
9. In addition to the required specialization courses, each student, in consultation with advisor and doctoral committee, selects an individual emphasis area and determines the specific courses to be completed.
10. Each student must satisfy a scholarly paper requirement by the time he or she has completed 36 credits (Review I). The student must be primarily responsible for carrying out and reporting a study under the supervision of a program faculty member. The requirement may be fulfilled in one of two ways. First, the study may involve the collection and analysis of some empirical data (for example, a pilot study) resulting in a scholarly paper that is submitted to either a professional journal or as a proposal to an annual conference of a national organization. Second, the paper may consist of a literature review that is submitted for

publication in a quality, peer-reviewed journal or submitted for presentation at a national conference. Prior to beginning, projects must be approved by a supervising faculty member. Once completed, students must submit to the program coordinator(s): (a) a copy of the paper, (b) a submission acknowledgment, and (c) a completed Review I form from the supervising faculty member.

11. Each student must take the preliminary examination (Review II). This second formal assessment, typically completed during the last semester of formal classwork, is an examination that will focus on areas of knowledge that are most relevant to the student's proposed dissertation topic. The student and his/her committee will determine the content of this examination format in that it will focus on in-depth reading and writing directly related to the student's proposed dissertation topic as well as on the student's mastery of previously learned core information.
12. After successfully completing Review I (i.e., satisfying the scholarly product requirement) and Review II (i.e., passing the preliminary examination), students can then submit a formal dissertation proposal to their doctoral committee and submit the accompanying "Dissertation Prospectus" form to the Graduate College. The doctoral committee will meet and determine whether to accept or reject the prospectus. A prospectus can be accepted provisionally given that the student follows the committee's suggestions in the dissertation. Upon completion of the full dissertation, a defense will be scheduled. This defense will be scheduled and conducted in accordance with the Graduate College's policies for thesis and dissertation completion. It is the student's responsibility to file the required "Notification of Oral or Written Examination" form with the Graduate College in a timely manner.

1. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to graduate from both programs for the same semester.
2. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
3. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
4. The student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## **Plan Graduation Requirements**

## Dual Degree: Doctor of Philosophy - Higher Education & Juris Doctor

### Plan Description

The Higher Education Program in coordination with the UNLV Boyd School of Law offers a dual J.D./Ph.D. degree. The Doctor of Philosophy – Higher Education is grounded in the concept that successful higher educational leaders must be well-informed and context sensitive professionals who make theory based, research supported, and data driven decisions.

The primary objectives of the program are to:

1. Prepare students for administrative positions in community colleges, four year colleges, universities, and other public and private learning and policy environments;
2. Prepare individuals for faculty positions in higher education; and
3. Assist doctoral students in the development of skills in assessment and evaluation, research design, and quantitative and qualitative methodologies appropriate for leadership roles as faculty or administrators in higher and postsecondary education.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applicants to the J.D./Ph.D. program must submit formal applications for admission to both the William S. Boyd School of Law and to the Graduate College. Students must meet the requirements for admission to both programs. Admission requirements are the same as those stated under the regular J.D. and Higher Education Ph.D. programs. Current are posted on the website.

A dual program candidate must complete the Graduate College, Law School and Higher Education Program admission processes in order to matriculate. Successful completion of the first year of law school is a precondition to commencement of work on the Ph.D. program and waives the Master's Degree prerequisite for entry to the program. A law school student may be admitted to the dual program by gaining admission to the Higher Education Ph.D. program after successful completion of the first year of law school with the consent of both programs.

Under the terms and conditions of the program the Law School has agreed to accept 9 credits of course work from the Higher Education Program toward the J.D. degree. The Higher Education Ph.D. Program has agreed to accept 18 credits of course work from the Law School toward the Ph.D. degree.

Students interested in the dual program should alert Graduate College admission personnel when commencing the admission process. Students interested in the Dual Degree Program should alert the Higher Education Ph.D. Admissions Coordinator so that consultation on the admissions process can be initiated.

Students can elect to specialize in any of three emphasis areas: higher education leadership, including university and community college leadership; higher education policy and planning; and student affairs leadership.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 134

Course Requirements

Total Credits Required for the Doctor of Philosophy  
– Higher Education: 54

**Required Core Courses – Credits: 15**

EDH 703 - History of American Higher Education  
EDH 710 - Finance and Budgeting in Higher Education  
EDH 715 - Theory of Educational Organizations  
EDH 738 - Public Policy in Higher and Post-Secondary Education  
EDH 705 - HE Law-Doctoral  
Or  
EDH 742 - Academic Governance in Higher Education

**Required Research Courses – Credits: 12**

EDH 707 - Designing & Critiquing Research In Education  
EPY 716 - Evaluation Research Methods  
EPY 722 - Inferential Statistics and Experimental Design  
EPY 718 - Qualitative Research Methodologies

**Research Elective Courses – Credits: 3**

Select one of the following courses in consultation with your program of study chair.

EPY 719 - Advanced Qualitative Research  
EPY 729 - Qualitative Case Study Research  
EPY 732 - Multiple Regression and Path Analysis  
EPY 733 - Multivariate Statistics

**Specialization Courses – Credits: 9**

Complete 9 credits from the following courses in consultation with your program of study chair.

EDH 607 - Leadership Development Seminar  
EDH 609 - Leading Diverse Organizations  
EDH 618 - Facilities Management and Campus Planning  
EDH 619 - Institutional Advancement  
EDH 624 - Readings in Student Personnel Issues  
EDH 706 - Current Issues in Higher Ed  
EDH 708 - The American Community College  
EDH 732 - Readings in Administration of Higher Education  
EDH 733 - The Professorate

EDH 737 - Ethical Dimensions of Higher Education Leadership  
EDH 739 - Organization Change & Innovation in Higher Education  
EDH 740 - Comparative and International Higher Education  
EDH 742 - Academic Governance in Higher Education  
EDH 745 - Institutional Planning in Higher Education  
EDH 750 - Special Topics in Higher Education  
EDH 780 - Seminar: Teaching in Higher Education  
EDH 791 - Doctoral Independent Study

**Prospectus Course – Credits: 3**

EDH 796 - Dissertation Proposal Preparation

**Dissertation – Credits: 12**

EDH 799 - Dissertation

Total Credits Required for the Juris Doctor: 80

**Required Courses – Credits: 44**

**Directed Electives – Credits: 9**

**Free Electives – Credits: 27**

Degree Requirements

1. Students must be admitted to both the J.D. and Ph.D. programs with graduate standing. The candidates must successfully complete the 80 credit hours of Law course work and 54 credit hours of the Ph.D. required course work.
2. William S. Boyd School of Law cannot award credit for any class taken before matriculation. J.D./Ph.D. candidates are required to enroll at the Boyd School of Law and complete one year of study before taking any Ph.D. courses.
3. Students without a background in statistics may take EPY 721 Descriptive/Inferential Statistics, but the course will not count as credits toward the doctoral program.
4. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental

members and one law school representative. In addition, a fifth member from outside the department, known as the Graduate College Representative, must be appointed. The Dual Degree Program Coordinator will sit on all dissertation committees. Please see Graduate College policy for committee appointment guidelines.

5. Students in the J.D./Ph.D. program must remain in good standing in both J.D. and Ph.D. programs.
6. The doctoral comprehensive examination consists of two parts: A core examination and an individualized examination. Part I: Core examination:
  - a. The core examination is offered twice a year (usually September and February). Students should take this examination as early in their programs as possible. Students are eligible to the Comprehensive Examinations if they have passed all core courses with a "B-" or better. No student with anything less than a "B-" in any core course will be allowed to take the Comprehensive Examination. A core course may be repeated, allowing the student an opportunity to earn a "B-" or better.
  - b. To be eligible to sit for this examination, students must have completed the required core courses, the required research courses, and the methodology course.
  - c. Each section of the comprehensive examination is taken over a two week period.
  - d. Section One: Covers research design. It draws heavily on the research core courses. Students are encouraged to integrate information from other methods courses into their answers. Information about this question is provided to students prior to the examination.
  - e. Section Two: Affords student the opportunity to integrate basic historical, organizational, financial/economic, policy, and legal perspectives into a discussion of one or more current issues. Faculty members will meet with students prior to distributing this question to talk about specific, appropriate issues that may be addressed in this section of the exam.
- f. The evaluation rubric is available for download from the department website. Students who do not pass a section of the comprehensive exams meet with their current advisor to discuss options and potential remedies.
- g. The purpose of the individualized examination is to help students fill in gaps in their knowledge base and to help them move forward into the dissertation stage of the program.
7. All students are required to engage in an internship experience. Each internship is an individually designed, semester-long experience that can be repeated for credit for up to a maximum of 6 hours. Ordinarily, the internship is completed after the student has successfully passed the core comprehensive examination. There are three types of internships for doctoral students: Administrative, Teaching, and Research.
  - a. Administrative internships enable students to apply theory to practice. Internship placements are available in a variety of professional settings including UNLV, the Community College of Southern Nevada, Nevada State College, the Nevada System of Higher Education administrative departments, as well as in neighboring institutions of higher education and government policy and business environments. These are challenging experiences in which students are expected to make meaningful contributions that advance the goals of the host site.



- b. Teaching internships are done under the aegis of a faculty member. Doctoral teaching assistants may team with a faculty member in a Master's course or teach undergraduate courses.
    - c. Research internships are usually done with the student's doctoral chair. These internships allow students to team with a faculty member on a research-based project, which may entail design, data collection, analysis, or writing.
  - 8. Students must complete the residency requirement. Residency requirements are met following the completion of 42 credit hours, the comprehensive examinations, and by completing these outcomes:
    - a. Completion of remaining course work, including research courses and electives.
    - b. Combination of doctoral internships and/or independent studies, as advised by student's doctoral advisor.
    - c. Successful completion of EDH 790 – Doctoral Internship and EDH 796 –Dissertation Proposal Preparation.
    - d. Completion of a national presentation and/or a manuscript submitted for publication consideration.
  - 9. Students may use three credits of dissertation hours (EDH 799) towards their residency.
  - 10. Residency requirements must be fulfilled prior to the dissertation proposal defense. Students must review an outcomes checklist with their advisors prior to the proposal defense to verify completion of residency. Upon completion of residency students should have 9 to 12 dissertation credits remaining in the program of study.
- graduate from both programs for the same semester.
  - 2. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
  - 3. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
  - 4. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Plan Graduation Requirements**

- 1. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to

## Dual Degree: Doctor of Philosophy - Special Education & Juris Doctor

### Plan Description

The Doctor of Philosophy Degree (Ph.D.) is designed with an emphasis in the development of skills in scientific inquiry and leadership. Students enrolled in this study program gain an understanding of philosophy and theory as they relate to the conduct of research and program evaluation. Graduates pursue careers in schools, institutions of higher education, research centers and agencies that require the competencies developed through a Ph.D. course of study.

Pursued individually, the J.D. degree requires the completion of 89 credit hours and the Ph.D. degree requires the completion of a minimum of 72 credit hours. The J.D./Ph.D. degree would require the completion of 80 law credit hours and a minimum of 63 education credit hours, as 9 hours of education courses are accepted toward the J.D. degree and 9 hours of law courses are accepted toward the Ph.D. degree.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applicants to the J.D./Ph.D. program must submit formal applications for admission to both the William S. Boyd School of Law and to the Graduate College. Students must meet the requirements for admission to both programs. Admission requirements are the same as those stated under the regular J.D. and Special Education Ph.D. programs.

A dual program candidate must complete the Graduate College, Law School and Special Education Ph.D. admission processes in order to matriculate.

Successful completion of the first year of law school is a precondition to commencement of work on the Ph.D. program. A law school student may be admitted to the dual program by gaining admission to the Special Education Ph.D. program after successful completion of the first year of law school with the consent of both programs.

Students interested in the dual program should alert Graduate College admission personnel when commencing the admission process. Students interested in the Dual Degree Program should alert the Special Education Ph.D. Admissions Coordinator so that consultation on the admissions process can be initiated.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 143

Course Requirements

Total Credits Required for the Doctor of Philosophy – Special Education: 63

### Required Courses – Credits: 21

ESP 782R - Professional Seminar in Special Education

ESP 783R - Leadership Seminar in Special Education  
ESP 784 - Seminar in Advanced Special Education Technology

ESP 785 - Issues, Trends and Futures in Special Education

ESP 787 - Philosophical Perspectives in Special Education

ESP 788 - Single Subject Methods in Special Education

ESP 789 - Grant Writing for Human Services

**Research Courses – Credits: 6**

EPY 721 - Descriptive and Inferential Statistics: An Introduction

ESP 791 - Proposal Design and Analysis

**Statistics Course – Credits: 3**

Complete one of the following courses, or another advisor-approved equivalent course.

EPY 722 - Inferential Statistics and Experimental Design

KIN 751 - Selected Application of Statistical Techniques I

**Additional Research Courses – Credits: 6**

Complete 6 credits from the following list of courses, or other advisor-approved courses.

EPY 716 - Evaluation Research Methods

EPY 718 - Qualitative Research Methodologies

EPY 733 - Multivariate Statistics

EPY 790 - Research Seminar in EPY

KIN 752 - Selected Application of Statistical Techniques II

**Internship Course – Credits: 6**

ESP 794A - Internship in Special Education Research

ESP 794A - Internship in Special Education Research

**Leadership & Exceptionality Courses – Credits: 6**

Complete 6 credits of advisor-approved leadership and exceptionality courses from one or more of the following leadership concentrations: Parenting, Administration, Research, Diagnosis/Assessment, Transition, Early Childhood Special Education, Early Childhood Education, Higher Education, Technology, Consultation, or Curriculum.

Complete credits in specialty areas from the following list: Autism, Learning Disabilities, Emotional Disturbance, Mental Retardation, Gifted and Talented Education, Developmental Disabilities/Children at Risk.

**Prospectus Course – Credits: 3**

Complete the following course as an independent study supervised by the advisor.

ESP 796 - Dissertation Prospectus

**Dissertation – Credits: 12**

ESP 799 – Dissertation

Total Credits Required for the Juris Doctor: 80

**Required Courses – Credits: 44****Directed Electives – Credits: 9****Free Electives – Credits: 27****Degree Requirements**

1. Students must be admitted to both the J.D. and Ph.D. programs with graduate standing. The candidates must successfully complete the 80 credit hours of Law course work and 63 credit hours of the Ph.D. required course work.
2. William S. Boyd School of Law cannot award credit for any class taken before matriculation. J.D./Ph.D. candidates are required to enroll at the Boyd School of Law and complete one year of study before taking any Ph.D. courses.
3. The Ph.D. program of study requires a minimum of 63 semester hours. Only credits that meet the following criteria may be included on the formal Program of Study:
  - a. Those not previously used to fulfill requirements for another degree;
  - b. Those taken while enrolled at an accredited graduate degree-granting institution in a degree-granting program;
  - c. Those taken as a non-degree seeking student (not to exceed 15 total semester hours); and
  - d. Those for which a grade of B or higher was earned.
4. Students in the J.D./Ph.D. program must remain in good standing in both J.D. and Ph.D. programs.
5. Doctoral students must earn a grade of B or higher in all core curriculum courses.

6. Doctoral Students must earn a grade of B or higher in EPY 721 and EPY 722/KIN 751.
7. Doctoral students are required to spend a minimum of two consecutive semesters (Fall-Spring, Spring-Summer or Summer-Fall) in full-time resident study in the Department of Educational and Clinical Studies. Full-time resident study is defined as being enrolled in at least nine semester hours of graduate level course work from an approved Program of Study (six semester hours if the student is a graduate assistant). In cases where residency includes a semester of course work prior to submission of the Program of Study, the advisor must approve residency. Work during residency is allowed. However, if the student is employed as a graduate assistant, any additional work beyond that performed as an assistant must conform to the rules of the University and Graduate College.
8. Two-thirds of the total semester hours included on the formal Program of Study (not including dissertation) must be taken at UNLV. Faculty members of the Department of Educational and Clinical Studies instructing specialist's and/ or master's classes initiate an interaction with doctoral students enrolled in these courses regarding the appropriateness of both the content and performance requirements for doctoral students. Students not admitted to the doctoral program in Educational and Clinical Studies (or to another doctoral program in the College of Education) may enroll in: ESP 782 - Professional Seminar in Special Education (formerly ESP 760) and two additional Core Curriculum Courses with consent of instructor prior to formal admission.
9. The Educational and Clinical Studies Doctoral Colloquium typically is held one Friday each semester. The Doctoral Coordinator coordinates these meetings with the assistance of the special education faculty and doctoral students.
10. The comprehensive examination is taken during the semester immediately preceding enrollment in ESP 799 Dissertation. The

- comprehensive examination consists of 16 hours of written examinations with eight hours structured by the student's major advisor and eight hours structured by the other internal committee members. The examinations are scheduled on two successive Fridays. The student's advisor determines the specific dates of the examination. The questions on the comprehensive examination address elements of the Core, Research, Leadership Studies, Exceptionality Specialties, and any course work taken for licensure or endorsements. The student's Doctoral Studies Committee provides general parameters from which questions are selected. "Take-home" examinations, in whole or in part, are not allowed. Students may use college provided technology for word-processing. Grading consists of three categories: Pass, Fail, and Pass with Distinction. Pass with Distinction occurs contingent upon a unanimous vote of the committee excluding the Graduate College representative. Students who fail the comprehensive examination will be placed on probation and must wait 4 months from the date of the failed examination to re-write their exam. However, under no circumstances may the reexamination be later than the semester following the failed examination. Students not passing the comprehensive examination on the re-write will be "excused" from the program.
11. Upon successful completion of comprehensive examination, the student selects a dissertation committee (i.e., minimum of three faculty members from the Department of Educational and Clinical Studies, one law school faculty member, and an outside member appointed by the Graduate College) and submits a dissertation proposal to the committee. This proposal includes an introduction, review of the literature, and a discussion of study methods. The Dual Degree Program Coordinator will sit on all dissertation committees. Two weeks after this proposal is submitted to the dissertation committee,

the committee meets with the student to accept or reject the proposal, as well as provide a critique of its relative strengths and weaknesses. Upon acceptance of the student's dissertation proposal, a recommendation for advancement to candidacy is submitted to the Graduate College.

12. Upon completion of the full dissertation, a defense is scheduled. Students need to obtain *The Guide to Preparing and Submitting a Thesis or Dissertation* from the Graduate College web site.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## **Master of Education - Higher Education**

### **Plan Description**

The Master of Education – Higher Education is designed to prepare graduates to serve in administrative capacities within the university, community college, and for-profit settings, with an emphasis on student affairs, intercollegiate athletics, and higher education organization.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

1. A bachelor's degree from an accredited college or university
2. A completed application and official copies of all college transcripts
3. Two letters of professional recommendation
4. Submission of an official copy of the Graduate Record Examination (GRE) or the Graduate Management Admissions Test (GMAT), or the LSAT
5. A minimum GPA of 2.75 for all undergraduate work or a 3.00 for the last two years of undergraduate work
6. Evidence of a minimum of two years satisfactory teaching or administrative experience (or equivalent) preferable but not required
7. Statement of Interest
8. Indication of interest in a graduate assistantship, when applicable

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within*

*the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 37

Course Requirements

### **Required Courses – Credits: 12**

EDH 604 - Management Communications  
EDH 607 - Leadership Development Seminar  
EDH 609 - Leading Diverse Organizations  
EDH 703 - History of American Higher Education

### **Core Research Course – Credits: 3**

EPY 702 - Research Methods

### **Additional Research Course – Credits: 3**

Select one of the following:

EPY 716 - Evaluation Research Methods  
EPY 718 - Qualitative Research Methodologies  
EPY 721 - Descriptive and Inferential Statistics: An Introduction

### **Internship – Credits: 3**

EDH 690 - Masters Internship

### **Elective Courses – Credits: 15**

Complete 15 credits of advisor-approved elective course work. Courses may be selected from but are not limited to, the following three emphasis areas.

#### *Student Affairs Emphasis*

EDH 626 - College Student Personnel Services  
EDH 627 - Student Learning and Development  
EDH 624 - Readings in Student Personnel Issues

#### *Intercollegiate Athletics Emphasis*

EDH 603 - Sport in Higher Education  
EDH 606 - Intercollegiate Athletic Administration  
EDH 611 - Marketing Institutions of Higher Education

#### *Higher Education Organizational Emphasis*

EDH 708 - The American Community College  
EDH 742 - Academic Governance in Higher Education  
EDH 750 - Special Topics in Higher Education

### **Capstone Course – Credits: 1**

EDH 610 - Master's Capstone Experience

Degree Requirements

1. Student must complete a minimum of 37 credit hours with a minimum GPA of 3.00.
2. All courses in the program must be at the 600- or 700-level.
3. The Master of Education (M.Ed.) – Higher Education is a non-thesis program, which requires the successful completion of a capstone project taken during the final semester.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation from both degrees up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete the capstone course.

## Master of Science - Educational Psychology

### Plan Description

The Master of Science - Educational Psychology is appropriate for students seeking the core knowledge, research tools, and educational experiences necessary to succeed in various educational settings. The program is appropriate for elementary, secondary, and special education teachers who wish to enhance classroom skills; students interested in pursuing advanced studies in educational psychology; students interested in obtaining a specialist degree in school psychology; as well as students who plan to apply their skills in government or business settings. Students' individualized programs are tailored with attention to their area of specialization.

**For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Admission to graduate studies at UNLV requires a bachelor's degree from an accredited four-year college or university with either a minimum grade point average of 2.75 overall or a 3.00 in the last two years of undergraduate work. Master's degree programs require that an application for admission be submitted to the Graduate College, as well as transcripts from all colleges and universities attended.

Admission to the Master of Science degree program in Educational Psychology is based on the following criteria:

1. Department application
2. Preference given to students whose scores relate to the 50th percentile or better on the verbal and quantitative sections of the Graduate Record Examination (GRE)
3. Three letters of recommendation
4. One writing sample

5. Transcripts from all colleges and universities attended
6. Graduate College application is available online

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### Subplan 1 Requirements: Thesis Track

Total Credits Required: 34

Course Requirements

#### Required Courses – Credits: 1

EPY 701 - Proseminar in Educational Psychology

#### Learning and Development Courses – Credits: 6

EPY 711 - Human Growth and Development

EPY 712 - Foundations of Learning and Cognition

#### Research Courses – Credits: 9

EPY 702 - Research Methods

EPY 721 - Descriptive and Inferential Statistics: An Introduction

EPY 723 - Theory and Practice of Human Measurement I

#### Elective Courses – Credits: 12

Students must complete a minimum 12 credit hours of advisor-approved electives.

#### Thesis – Credits: 6

EPY 749 - Thesis

Degree Requirements

1. A minimum of 34 credits is required for the degree. Students must maintain a grade point average of 3.00 or better in the program and a grade of B or better in core course work.
2. The culminating experience for the M.S. degree is the defense of the students' master's thesis.
3. Students who choose to complete a thesis will select a Graduate Faculty member to serve as chair. The chair and the student will select the other committee members. Each committee must have three members. Committee members must be named by the time the student submits their Program of Study to the Graduate College. The student must defend a thesis proposal before data to be used in the thesis are collected. The committee will meet and determine whether to accept or reject the proposal. A proposal can be accepted provisionally given that the student follows the committee's suggestions for revision. Upon completion of the thesis, an oral defense will be scheduled. This defense will be scheduled and conducted in accordance with the Graduate College's policies for thesis and dissertation completion.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation from both degrees up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### Subplan 2 Requirements: Non-Thesis Track

Total Credits Required: 34

#### Course Requirements

##### Required Courses – Credits: 1

EPY 701 - Proseminar in Educational Psychology

##### Learning and Development Courses – Credits: 6

EPY 711 - Human Growth and Development

EPY 712 - Foundations of Learning and Cognition

##### Research Courses – Credits: 9

EPY 702 - Research Methods

EPY 721 - Descriptive and Inferential Statistics: An Introduction

EPY 723 - Theory and Practice of Human Measurement I

##### Elective Courses – Credits: 18

Students must complete a minimum of 18 credit hours of electives.

#### Degree Requirements

1. A minimum of 34 credits is required for the degree. Students must maintain a grade point average of 3.00 or better in the program and a grade of B or better in core course work.
2. The culminating experience for the M.S. degree is the completion of a written comprehensive examination.
3. The comprehensive exam is comprised of questions reflective of the core areas (learning and development, research and measurement), and the specialty. All students who take the comprehensive exam in a given semester will respond to items from a set selected for that semester. In consultation with the Comprehensive Examination Evaluation Committee, the student's adviser/committee chair will create an additional item to reflect the student's elective courses/speciality. A department Comprehensive Examination Evaluation Committee will evaluate the responses for each examinee. Each student's adviser/committee chair will also evaluate



his/her student's responses to the selected items.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation from both degrees up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete a culminating experience.

#### **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## Education Specialist - Educational Psychology

### **Plan Description**

Educational Psychology Ed.S. is based upon standards set forth by state and national accreditation organizations and is a nationally approved program. Students pursuing school psychology studies meet credential standards by completing at least 66 semester hours beyond the bachelor's of required and elective graduate-level course work by completing the hours and 1,200 hours of supervised internship. Completion of this program of graduate study enables the student to receive state licensure as a school psychologist in Nevada and the opportunity to gain national certification.

The program adopts the scientist/practitioner model of school psychology. Courses and practica seek to integrate theory and applied skills for working in schools and other educational settings. The primary goal of the school psychology program is to prepare professional school psychologists who can apply psychological principles to ameliorate cognitive, learning, behavioral, and other school related problems of children and adolescents.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Students are admitted each spring to begin the following fall. Applicants must have a 2.75 undergraduate GPA with the last two years GPA of 3.0. The GRE must also be taken, with preference given to applicants who score at or above the 50% percentile on both the verbal and quantitative scores on the GRE. The admission process begins with applications submitted to the Graduate College and to the program

Admission is based on the following criteria:

1. Graduate College online application
2. Department application
3. Preference is given to students whose scores relate to the 50th percentile or better on the verbal and quantitative sections of the Graduate Record Examination (GRE)
4. Three letters of recommendation from former instructors, employers, or other professionals who can evaluate the potential to complete graduate study
5. One-page career goals statement which also serves as a sample of the applicant's writing skills
6. Transcripts from all colleges and universities attended

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 67

Course Requirements

### **Psychology/Educational Foundations Courses – Credits: 16**

EPY 701 - Proseminar in Educational Psychology  
 EPY 711 - Human Growth and Development  
 EPY 712 - Foundations of Learning and Cognition  
 ESP 701 - Introduction to Special Education and Legal Issues  
 EPY 788 - Seminar in EPY  
 EPP 760 - Psychoeducational Issues of Diverse Learners

### **Assessment & Intervention Courses – Credits: 22**

EPY 705 - Child Counseling  
 EPP 710 - Assessment of Intelligence by School Psychologists  
 EPY 786 - Applied Assessment in Educational and School Psychology

EPP 715 - Projective, Personality, and Behavioral Assessment by School Psychologists  
 CED 733 - Introduction to Group Counseling  
 EPP 767 - School-Based Neuropsychological Assessment  
 EPP 763 - Psychoeducational Academic and Diagnostic Assessment  
 ESP 733 - Management and Modification of Students with Special Needs

### **Research Courses – Credits: 9**

EPY 702 - Research Methods  
 EPY 721 - Descriptive and Inferential Statistics: An Introduction  
 EPP 750 - Advanced Test Analysis in School Psychology

### **Professional School Psychology Courses – Credits: 6**

Complete 3 credits in each of the following two courses:

EPP 761 - Role and Function of the School Psychologist  
 EPP 764 - School Psychology Seminar

### **School Psychology Course – Credits: 6**

EPP 762 - School Psychology Intervention with Practicum

### **Internship Course – Credits: 6**

EPP 769 - Internship in School Psychology

### **Professional Paper – Credits: 2**

EPP 766 - School Psychology Professional Paper

Degree Requirements

1. Student must complete a minimum of 67 credit hours with a minimum GPA of 3.00.
2. Course substitutions may be allowed with advisor and/or program faculty approval.
3. Following the first year of the required prescribed Ed.S. program courses (minimum of 34 credits) and successful completion of the comprehensive examination, students are

eligible to receive an M.S. degree in Educational Psychology.

4. The culminating experience for the School Psychology Ed.S. is the completion of a two-semester (minimum of 1200 clock hour) internship in a school setting. This is typically a full-time assignment, completed at the end of the program. During this time students will also enroll in EPP 766 and complete a portfolio with results of a national exam and examples of work product. The portfolio will serve as the final examination for the Ed.S. degree.
5. Students will typically have completed all other coursework prior to being approved for internship. Students must have successfully completed the primary assessment courses (EPP 710, EPP 715, EPP 763) and the practica to be eligible for internship placement.

#### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation from both degrees (where applicable) up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete the professional paper.

#### **Educational Psychology and Higher Education Courses**

##### **EPY 699 - Special Topics**

Specialized instruction in counseling and human development services concerned with specific problem areas or specific approaches to counseling and delivery systems. Specific topics designed to help students develop in-depth understanding of particular topic or issue.

**Notes** This course is crosslisted with EPY 499. Credit at the 600 level requires additional work.

##### **EPY 700 - Special Problems: EPY**

Credits 1 – 6

Specialized instruction in general professional education designed to develop depth in understanding of current EPY problems.

**Notes** May be repeated to a maximum of six credits.

##### **EPY 701 - Proseminar in Educational Psychology**

Credits 1 – 2

Introduction to graduate studies in educational psychology. Topics may include, but are not limited to: teaching apprenticeship, professional organizations, creating a vita, evaluation and assessment, institutional review board training, peer review process, use of PsychInfo and other topics relevant to graduate studies.

**Notes** May be repeated to a maximum of two credits.

**Prerequisites** EPY 702 (may be taken concurrently) or equivalent.

##### **EPY 702 - Research Methods**

Credits 3

Early entry graduate-level survey of research methods with emphasis on comprehension of educational research literature. Includes scientific method, locating and summarizing published research, sampling, measurement, statistics, research design, and critique of published research

##### **EPY 703 - Teachers as Producers and Consumers of Educational Research**

Credits 3

Entry graduate-level survey of research methods with a dual emphasis on 1) comprehension of educational research literature (teachers as consumers of

educational research) and 2) designing and conducting classroom-based research (teachers as producers of educational research).

EPY 705 - Child Counseling  
Credits 2

Focuses on children's position in and impact upon the family, emotional development, assessment of behavioral and emotional problems, adjustment issues at school and social/developmental situations. Models of counseling children, models of parent education, and models of parent and school interaction, ethical and legal responsibilities in regard to children, and current research presented.

**Prerequisites** Graduate standing or consent of instructor.

EPY 707 - Adolescent Development  
Credits 3

Examines physical, cognitive, social, and moral development of adolescents. Theories of identity development, including ethnic identity development, and their applications to counseling, education, and curriculum development discussed. Social relations, aspects of sexuality, and special problems/issues of adolescence.

EPY 708 - Human Learning and Development  
Credits 3

Graduate-level introduction to basic concepts in educational psychology with emphasis on development, learning, and motivation.

**Prerequisites** Undergraduate degree not in behavioral science or consent of instructor.

EPY 709 - Classroom Assessment  
Credits 3

Compares and contrasts traditional and alternative assessment procedures including factors such as: philosophical basis, purposes, roles of teacher, student and administrators, interpreting and reporting results, and strengths and limitations. The role of assessment in promoting learning also discussed.

**Prerequisites** EPY 707 or EPY 708 (may be concurrent) or consent of instructor.

EPY 710 - Survey Methods and Design  
Credits 3

Systematic analysis of survey design and research conducted using survey techniques with emphasis on

how to effectively plan and conduct mail, electronic, and other self-administered.

**Prerequisites** EPY 702 or consent of instructor.

EPY 711 - Human Growth and Development  
Credits 3

Emphasis on implications of human growth and life-span development (childhood through adulthood) for counseling, research and instruction. Topics include prenatal development and birth, death and dying, and physical, perceptual, cognitive, moral, personality, and language development.

**Prerequisites** EPC 701 or consent of instructor.

EPY 712 - Foundations of Learning and Cognition  
Credits 3

Systematic analysis of concepts and principles of human learning with emphasis on their application to instruction and counseling. Topics include classical and operant conditioning, information-processing and memory, the neurophysiology of learning, and personality and social factors in learning.

EPY 716 - Evaluation Research Methods  
Credits 3

Addresses the definition and purposes of evaluation research including its potential uses and limitations. Examines models of evaluation research and their application in a variety of settings.

**Notes** Students are strongly encouraged to complete EPY 711 prior to enrolling in this course.

**Prerequisites** EPY 702 or EDH 707 ; EPY 721

EPY 717 - Analysis of Applied Learning Principles and Educational Media  
Credits 3

Introduction to the processes and products of educational media development/selection through the study of contributions, evaluation criteria, and production requirements essential for optimal learning situations. Includes practice in applying learning principles to educational media.

EPY 718 - Qualitative Research Methodologies  
Credits 3

Qualitative approaches to exploring phenomena related to educational and other social contexts. Attention given to theoretical and practical considerations of case studies, ethnographies, participant observation and narrative reports;

discussion of criteria for establishing goodness of qualitative studies.

**Notes** Field work using qualitative methods required.

**Prerequisites** EPY 702

EPY 719 - Advanced Qualitative Research

Credits 3

Qualitative approaches to exploring phenomena related to educational and other social contexts.

Analysis of data and presentation of findings.

Specific emphasis on analysis of discourses from participant observation and/or interview data.

**Notes** Field work using qualitative methods may be required.

**Prerequisites** EPY 702 and EPY 718

EPY 721 - Descriptive and Inferential Statistics: An Introduction

Credits 3

Descriptive indices of central location and dispersion, correlation and regression, hypothesis testing and basic inferential techniques. Emphasis on intuitive understanding and applications in educational/behavioral measurement and research.

EPY 722 - Inferential Statistics and Experimental Design

Credits 3

Intermediate- level coverage of inferential statistics and experimental design analysis covering commonly used techniques in educational and behavioral research with computer applications.

**Prerequisites** EPY 721

EPY 723 - Theory and Practice of Human Measurement I

Credits 3

Measurement of human characteristics using applications of classical measurement theory and introduction to the more recent item response theory models. Topics include test planning, scaling, item and test construction, item analysis, reliability and validity.

**Prerequisites** EPY 721 (EPY 721 may be taken concurrently).

EPY 724 - Theory and Practice of Human Measurement II

Credits 3

Human measurement emphasizing methods of test

and trait validation. Topics include factor analysis, discriminant analysis, item response theory, test equating, and current issues in measurement.

**Prerequisites** EPY 721, 722, 723 (EPY 722 may be taken concurrently).

EPY 726 - Advanced Evaluation Research Methods

Credits 3

Addresses application of evaluation research theory and methods through a project-based curriculum in order to provide in-depth examination of essential elements of the evaluation process.

**Prerequisites** EPY 716

EPY 728 - Applied Classroom Research

Credits 3

Provides students with basic knowledge and skills necessary to conduct research within a classroom.

Introduces elements required to begin and conduct an action research project, including purpose/rationale, literature review, data collection, analysis and interpretation, and communicating results.

**Prerequisites** EPY 702 or EPY 703 and EPY 718

EPY 729 - Qualitative Case Study Research

Credits 3

Focuses on case studies within education. Students conduct in-depth, naturalistic case studies in educational settings to learn about theory, methodology, and methodological issues relevant to disciplined qualitative case study. Conducting interviews, data collection, coding, and analysis in a qualitative case study design.

**Prerequisites** EPY 702 and EPY 718

EPY 730 - Advanced Research Methods

Credits 3

Compares strengths and weaknesses of experimental research designs, using this knowledge to improve design sensitivity. Includes hypothesis testing, threats to validity, power, and effect size. Considers controversies in quantitative research literature.

**Prerequisites** EPY 702, EPY 721 and EPY 722.

EPY 732 - Multiple Regression and Path Analysis

Credits 3

Intermediate-level inferential statistics for experimental and non-experimental educational research covering general linear models including analysis of variance, regression (simultaneous,

variable-selection, hierarchical approach), and path analysis, integrated with the use of statistical computer packages.

**Prerequisites** EPY 722

EPY 733 - Multivariate Statistics

Credits 3

Advanced-level statistics including commonly used multivariate statistical procedures in educational and behavioral inquiries with computer applications.

**Prerequisites** EPY 722, EPY 730 (EPY 730 may be taken concurrently).

EPY 734 - Latent Variable Models: Factor Analysis and SEM

Credits 3

Designed for those who want to become familiar with applied latent variable modeling and popular computer programs used to carry out the analysis. Topics include exploratory and confirmatory factor analysis and structural equation models with observed and/or latent variables and with single or multiple groups.

**Prerequisites** EPY 721, EPY 732 or consent of instructor.

EPY 736 - History of Education in the United States

Credits 3

Story of factors and conditions which have been influential in shaping educational thought, ideals, theories, and practices of current American education.

EPY 737 - Social Foundations in Education

Credits 3

Study of schools and other socialization agents as they interact within the community and the larger society. Also includes intercultural education.

EPY 738 - Discourse Analysis

Credits 3

Qualitative approaches to text and discourse analysis from different theoretical perspectives will be contrasted. Data from various textual and discourse oriented sources including narratives, audio and/or video tapes, and written artifacts analyzed in depth through hands-on projects. May include use of software programs specific to qualitative data analysis.

**Prerequisites** EPY 702 or 703 and EPY 718, or equivalent.

EPY 745 - Categorical/Nonparametric Data Analysis  
Credits 3

Introduction to categorical/nonparametric data analysis, for use in small samples or when cases consist of categories or ranks. Topics include contingency tables (including loglinear models), nonparametric tests for ordinal and interval data, logistic and Poisson regression.

**Notes** Project involving analysis of the student's own research data may be required.

**Prerequisites** EPY 721, EPY 722, and EPY 732.

EPY 746 - Multilevel Statistical Models: Theory and Application

Credits 3

Intermediate-level coverage of linear and non-linear multilevel statistical models. Includes coverage of status and growth models. Emphasis on intuitive understanding and practical application.

**Prerequisites** EPY 721, EPY 722, and EPY 732.

EPY 747 - Large Scale Secondary Data Analysis  
Credits 3

Introduction to large scale secondary data analysis. Examination of the promise and pitfalls of working with secondary data sources. Overview of data management and analysis issues.

**Notes** Practical skill development emphasized.

**Prerequisites** EPY 721, EPY 722, and EPY 732.

EPY 749 - Thesis

Credits 3 – 6

**Notes** May be repeated but only six credits applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** EPY 702.

EPY 757 - Theory and Philosophy of Educational Psychology

Credits 3

Evolution of psychological learning theories, from their philosophical foundations to the present. Central issues include how psychological constructs such as the mind, knowledge representation, and attention impact learning and changes in our understanding of the nature of these constructs over time.

**Prerequisites** Graduate standing.

EPY 760 - Advanced Seminars in School Counselor Education and Practice

Credits 3

Analysis of significant issues in counseling of current and continuing concern. Examination of historical, social, legal and philosophical dimensions of selected problem areas.

**Formerly** (EPC 760)

**Prerequisites** Consent of instructor.

EPY 767 - Human Learning and Cognition

Credits 3

Components of human memory and how these components affect learning. Emphasis placed on recent research and theory in working memory and long-term storage. Instructional implications of research discussed, especially with respect to skill acquisition, development of expertise, and cognitive strategy instruction.

**Prerequisites** Graduate standing.

EPY 768 - Problem Solving, Reasoning, and Expertise

Credits 3

Acquisition of reasoning and problem solving expertise. Emphasis on models of memory and learning and their implications for expert performance in a variety of domains. Discusses issues such as creativity and intelligence, implications of the literature on expert performance for teaching and learning.

**Prerequisites** Graduate standing.

EPY 770 - Cognition and Instruction

Credits 3

Examines research in the application of cognitive learning principals to instruction in specific domains, particularly reading, writing, mathematics, and science. Research on technological applications especially emphasized. Readings include both foundational and current research.

**Prerequisites** Graduate standing.

EPY 772 - Contemporary Philosophies of Education

Credits 3

Intensive critical analysis of leading contemporary philosophies of education and their possible implications for practice.

EPY 777 - Cognitive Development

Credits 3

Overview of major theories, issues, and research in cognitive development. Primary emphasis on development of thinking and learning from childhood through adulthood.

**Prerequisites** Graduate standing.

EPY 780 - Individual Instruction

Credits 1 – 12

Selected basic problems related to the field of counseling services. a) Testing. b) Curriculum. c) Supervision. d) Counseling. e) Area Problems. f) Research.

**Notes** May be repeated to a maximum of 12 credits.

EPY 781 - Research in Educational Psychology

Credits 3

Individual research projects in educational psychology under the direction of a faculty member.

**Notes** May be repeated to a maximum of 12 credits.

**Prerequisites** EPY 702, EPY 721, EPY 722 and consent of instructor.

EPY 782 - Independent Study

Credits 3

Independent study of a selected topic in educational psychology under the direction/supervision of a faculty member.

**Notes** May be repeated to a maximum of 12 credits.

EPY 783 - Directed Readings in Educational Psychology

Credits 3

In-depth study of a topic through selected readings under the direction of a faculty member.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** EPY 767

EPY 784 - Teaching Practicum

Credits 3

Individual study under the direction of a faculty member focusing on preparing to teach at the college level.

**Prerequisites** EPY 723 or EPY 767 and consent of instructor.

EPY 786 - Applied Assessment in Educational and School Psychology

Credits 1 – 4

Application of assessment approaches used for the evaluation of students in school settings.  
**Notes** May be repeated to a maximum of four credits.

EPY 787 - Individual Research  
Credits 1 – 7

Selected basic problems in personnel services.  
**Prerequisites** EPY 702

EPY 788 - Seminar in EPY  
Credits 1 – 6

Selected topics in counseling and human development services. a) Principles and practices. b) Individual analysis. c) Occupational information. d) Placement. e) Follow-up evaluation. f) Research.  
**Notes** May be repeated to a maximum of six credits.  
**Prerequisites** Consent of instructor.

EPY 789 - Seminar in Learning and Cognition  
Credits 3 – 12

Selected topics in learning and cognition. Exploration of a specific aspect of learning and cognition. Topics may include, but are not limited to: memory, learning theory, motivation, text processing, individual differences, epistemological beliefs.  
**Prerequisites** EPY 767 or consent of instructor.

EPY 790 - Research Seminar in EPY  
Credits 1 – 3

Seminar for the advanced candidate stressing the exploration of current literature and research projects.  
**Prerequisites** Consent of advisor and instructor.

EPY 791 - Special Topics in Educational Psychology  
Credits 3

In-depth study of special topics in educational psychology stressing the exploration of cutting-edge research on the topic. Topics may include, but are not limited to: false memory, goal theory, self-regulated learning, web-based data collection, discourse analysis.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Consent of instructor.

EPY 793 - Advanced Doctoral Practicum  
Credits 3 – 6

Advanced practice supervised experience for doctoral students in school psychology and counseling.

**Notes** May be repeated to a total of six credits.

**Prerequisites** Consent of instructor.

EPY 794 - Internship  
Credits 3 – 6

Final activity intended to provide on-the-job experience in developing related competencies.  
**Notes** May be repeated to a maximum of six credits.  
**Prerequisites** Consent of instructor.

EPY 799 - Dissertation  
Credits 3–24

Culminating experience that may be: a) traditional, original research, b) field oriented and problem solving, or c) exploratory or generative research. Limited to doctoral candidates. 3-24 credits in increments of three.

**Notes** May be repeated but only a maximum of 24 credits may be applied towards degree.

**Grading** S/F grading only.

Educational Psychology/School Psychology

EPP 710 - Assessment of Intelligence by School Psychologists  
Credits 3

Theory and practice in the use of assessment measures for evaluating intellectual abilities of children, youth, and adults.

**Prerequisites** Admission to program or consent of instructor.

EPP 715 - Projective, Personality, and Behavioral Assessment by School Psychologists  
Credits 3

Assessment devices used by school psychologist to evaluate student's emotional and behavioral status.

**Prerequisites** Admission to program or consent of instructor.

EPP 720 - Problems in Child Development  
Credits 3

Application of the principles in child growth and development; interpretation of research and theory of school practices relating student personnel services to the resolution of professional problems in the school.

**Prerequisites** Graduate standing or consent of instructor.



EPP 723 - Diagnostic and Prescriptive Strategies:  
Psychopathology

Credits 3

Designed to explore variables and intervention strategies with emphasis on assessment-based interventions and focus on brief counseling theories and techniques for school psychologists and other school-based practitioners.

**Formerly** (EPC 723)

**Prerequisites** Admission to doctoral program or consent of instructor.

EPP 750 - Advanced Test Analysis in School  
Psychology

Credits 3

Functional and theoretical approach for interpretation and inquiry applications with cognitive and affective scales typical in school-based practice. Emphasis on advanced statistical analysis for synthesizing data in diagnostic and validation studies.

**Prerequisites** Admission to doctoral program or consent of instructor.

EPP 760 - Psychoeducational Issues of Diverse  
Learners

Credits 3

Provides skills needed to work with diverse learners in a psychoeducational setting. The learner will be expected to understand multicultural issues concerning assessment, counseling, second-language acquisition, and/or general cultural diversity.

**Prerequisites** Admission to program or consent of instructor.

EPP 761 - Role and Function of the School  
Psychologist

Credits 3

Primarily designed for prospective school psychologists but also for those interested in field of school psychology. In-depth survey of field with its related problems and issues. Local, regional, and national issues studied from a practical field perspective.

**Prerequisites** Consent of instructor.

EPP 762 - School Psychology Intervention with  
Practicum

Credits 3

Supervised practice with children in school and clinic settings with intervention recommendations.

**Notes** May be repeated up to a maximum of nine credits.

**Prerequisites** Admission to program and consent of instructor.

EPP 763 - Psychoeducational Academic and  
Diagnostic Assessment

Credits 3

Teaches students how to effectively perform psychological, academic, and diagnostic testing as part of a general psychoeducational evaluation. Students will also be given skills in diagnosing educational and psychological disorders.

**Prerequisites** Admission to program or consent of instructor.

EPP 764 - School Psychology Seminar

Credits 1

Review of issues and research in the field of school psychology.

**Notes** May be repeated to a maximum of four credits.

**Prerequisites** Consent of instructor.

EPP 765 - Advanced Assessment Seminar:

Credits 1 – 9

Designed to provide functional skills in assessment in the diagnosis and evaluation phase of counseling to provide skills in the administration, scoring, and interpretation of clinical instruments.

**Prerequisites** Admission to program or consent of instructor.

EPP 766 - School Psychology Professional Paper  
Credits 2

Scholarly paper on a topic pertinent to the profession of school psychology.

**Prerequisites** Admission to program and consent of instructor.

EPP 767 - School-Based Neuropsychological  
Assessment

Credits 3

Provides functional skills in neuropsychological assessment for school psychologists with attention to organization of the human nervous system, brain-behavior relationships, and developing recommendations for instructional interventions based on neurocognitive strengths and weaknesses.

EPP 769 - Internship in School Psychology  
Credits 3

Supervised school-based experience as a school psychologist intern.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** EPP 761 (may be taken concurrently).

EPP 773 - Social Science Contributions in Education  
Credits 2

Utilization of theory, data, and methodology from various social sciences to gain an appreciation and understanding of the forces and interactions among societies, institutions, and individuals in the realm of educational theory and pedagogy. a) Anthropological perspectives. b) Sociological perspectives. c) Economic perspectives.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor.

#### Higher Education Leadership

EDH 602 - Research Based Decision Making  
Credits 3

This master's level course assists students in how to integrate information from reports, research, surveys, and other forms of data into effective leadership and management decision making processes. The methods and processes for deciphering information will help students detail the strengths and weaknesses of informational sources that administrators commonly encounter.

**Formerly** EDH 702

**Notes** (Master's Program)

EDH 603 - Sport in Higher Education  
Credits 3

Examine the role athletics and recreational sport plays in higher education. Through analysis of relevant scholarly literature and current issues, students will experience the expectations placed on higher education administrators responsible for integration and oversight of college sport programs.

EDH 604 - Management Communications  
Credits 3

Master 's level course on the administrative and communication aspects of effective leadership within a higher education setting. Equips students with the tools necessary to be effective communicators with

various audiences via letters, memorandums, E-mail messages, presentations, and meetings.

**Formerly** EDH 704

**Notes** (Master's Program)

EDH 605 - Introduction to Colleges and Universities  
Credits 3

Master's level course that provides an introduction to the purposes, goals, and structures of institutions of higher education. Provides a broad view of managerial functions and an understanding of organization, finance, and other issues related to college administration.

**Notes** Master's program

EDH 606 - Intercollegiate Athletic Administration  
Credits 3

This course provides students with an understanding of governance and policy development relevant to higher education, intercollegiate athletics. Through analysis of relevant scholarly literature, national governing body policies and institutional policies, students experience expectations placed on administrators responsible for oversight of intercollegiate athletics.

EDH 607 - Leadership Development Seminar  
Credits 3

Analyzes leadership functions related to educational organizations, leadership and management theory and the impact of human resources. Special emphasis placed on use of teams in higher education.

**Formerly** EDH 728

EDH 608 - HE Law-Masters  
Credits 3

Informs students of various legal authorities and their impact on higher education and administration. Includes review and analysis of legal dictates including federal and state constitutions, statutes, case law policies, and administrative rules.

**Formerly** EDH 751

**Notes** (Master's Program)

EDH 609 - Leading Diverse Organizations  
Credits 3

Provides students with opportunity to reflect on experiences, examinations of theory, and practical application of organizational leadership within the

context of diversity.

**Formerly EDH 761**

EDH 610 - Master's Capstone Experience  
Credits 1

Provides an integrative, synthesizing experience for students culminating in a written examination or an Option II Paper. Draws on and integrates concepts from previous courses and work experiences to ascertain the big picture perspective of higher education.

**Formerly EDH 798**

**Notes** Only one credit may count toward degree plan.

**Grading** S/F grading. (Master's Program)

EDH 611 - Marketing Institutions of Higher Education  
Credits 3

A study of the conceptual and empirical approaches higher education leaders can utilize for building relationships with stakeholders. Topics include commercialization of higher education, market forces versus public interest, responsible innovation, strategic marketing plan development, corporate sponsorships and intercollegiate athletics, marketing ethics, as well as application of market research in the higher education contexts.

EDH 618 - Facilities Management and Campus Planning  
Credits 3

This course familiarizes students with facilities management, campus planning, and public/private partnerships. The goal of the class is to increase the awareness and understanding of the topic areas and their impact on both the academic and administrative programs at higher education institutions.

**Formerly EDH 712**

EDH 619 - Institutional Advancement  
Credits 3

Introduction to fundraising and alumni relations operations in contemporary higher education. Examines the assumptions, models, and methods that characterize fund and friend raising. Students will develop a context within which to evaluate the effectiveness of IA programs.

**Formerly EDH 718**

EDH 623 - Women in Higher Education  
Credits 3

Women's experiences with higher education structures and policies are studied. We explore intersections of race, gender, socio-economic status and identity development in college women, while considering intersections of feminist theory and historical, social, professional and institutional contexts to shed light on the educational process and how women frequently experience discrimination.

EDH 624 - Readings in Student Personnel Issues  
Credits 3

Explores in detail all aspects of college student personnel work by conducting an extensive review of writings related to theory, practice, and program management.

**Formerly EDH 734**

**Prerequisites** Consent of instructor.

EDH 626 - College Student Personnel Services  
Credits 3

Introduction to the field of college student personnel services and the role of CSPW within institutions of higher education. Reviews development of the profession and assessment of current developments.

**Formerly EDH 762**

EDH 627 - Student Learning and Development  
Credits 3

Explores how students learn and develop. Strategies to facilitate learning by college students analyzed. Focuses on application of student development theory.

**Formerly EDH 764**

EDH 630 - Program Evaluation, Planning & Assessment  
Credits 3

Familiarizes students with the relationship between campus environment and student learning.

EDH 690 - Masters Internship  
Credits 3

Individually structured program designed to enroll the student in an administrative unit or academic experience under the joint supervision of a practicing administrator or faculty member and a university professor.

**Notes** Repeatable to six credits.

**Grading** S/F grading only.

EDH 691 - Masters Independent Study

Credits 3

Research, teaching, or administrative work in a unique area of interest in the field of higher education. All work conducted in cooperation with instructor/advisor.

**Notes** Repeatable to six credits.

**Corequisite** Consent of instructor.

EDH 703 - History of American Higher Education

Credits 3

Surveys the history of American higher education in the United States with a focus on two-year and four-year institutions, public and private. Begins with its traditional liberal arts origin through the growth of the community college and American research university. Explores how various groups changed the structure of higher education and the challenges these changes created.

**Prerequisites** Master's consent of instructor.

EDH 705 - HE Law-Doctoral

Credits 3

Designed for graduate students preparing for leadership positions in public schools.

**Formerly** EDH 752

**Prerequisites** Consent of instructor.

EDH 706 - Current Issues in Higher Ed

Credits 3

Assists graduate students in higher education in developing understanding of and appreciation for philosophical and sociological contexts that provide foundation for present system of higher education in America.

EDH 707 - Designing & Critiquing Research In

Education

Credits 3

Helps Ph.D. students become more thoughtful about the goals and methods of educational research. Develops in-depth understanding of research design and awareness of issues considered when critiquing research findings.

EDH 708 - The American Community College

Credits 3

Development of the contemporary community, junior, and technical college. In-depth examination of history, philosophy, curriculum, and structure of the two-year college. Includes related curriculum topics.

**Prerequisites** Consent of instructor.

EDH 709 - Seminar in the Economics of Higher Education

Credits 3

Designed to expose students to the basic principles of micro economics and fundamental economic theories that tie to education. Students have opportunity to experiment with economics as a tool for examining higher education policy.

**Prerequisites** Consent of instructor.

EDH 710 - Finance and Budgeting in Higher Education

Credits 3

For students who expect to spend their careers in higher education. Provides understanding of the principals related to the economics of education including why society invests in colleges and universities.

EDH 715 - Theory of Educational Organizations

Credits 3

Intense discussion in understanding how higher educational organizations function. Students examine these roles as they relate to the performance of higher education administrators.

EDH 730 - Legal Aspects of Student-University Relationship

Credits 3

Advanced issues course that explores topics relevant to the legal aspect of the student-university relationship.

**Formerly** EDH 784

**Prerequisites** Master's consent of instructor.

EDH 732 - Readings in Administration of Higher Education

Credits 3 – 6

Selected readings of literature in higher education; assigned topics in the areas of organization, administration, finance, and/or supervision, agreed upon by both advisor and student.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor.

EDH 733 - The Professorate

Credits 3

Designed to engage participants in discussion, research, and writing that focuses on college and University faculty. Analyze faculty as people at work in organizations, consider structural and cultural dimensions of faculty work, and examine the condition of the academic profession within changing environmental contexts.

**Formerly** EDH 760

**Prerequisites** Masters consent of instructor.

EDH 735 - Law and the Professorate

Credits 3

Legal aspects of the relationship between university faculty and the institution.

**Prerequisites** Master's consent of instructor.

EDH 737 - Ethical Dimensions of Higher Education Leadership

Credits 3

Ethical aspects of the culture, activities, and principles relating to leadership in higher education. Students will explore current ethical issues in the post-secondary education setting and prepare a written project focusing on the ethical principles of a higher education leadership issue.

**Prerequisites** Masters consent of instructor.

EDH 738 - Public Policy in Higher and Post-Secondary Education

Credits 3

Focuses on decision making and public policy formation in higher education. Roles of state and national policy-making process studied in depth.

**Formerly** EDH 792

**Prerequisites** Master's consent of instructor.

EDH 739 - Organization Change & Innovation in Higher Education

Credits 3

Introduces students to philosophical and application tools in which to view public policy. Students will examine higher education policy utilizing these different tools and national databases.

**Prerequisites** EDH 792

EDH 740 - Comparative and International Higher Education

Credits 3

Familiarizes students with international higher education systems. The goal of the course is to examine the similarities and differences of the international systems as they relate to higher education in the United States.

**Prerequisites** Master's consent of instructor.

EDH 742 - Academic Governance in Higher Education

Credits 3

Theoretical and working knowledge of politics in higher education. Students gain appreciation, understanding and critique of politics and its influences on policy formation.

**Formerly** EDH 787

**Prerequisites** Master's consent of instructor.

EDH 745 - Institutional Planning in Higher Education

Credits 3

Familiarizes students with institutional planning in higher education with a focus on issues including academic strategy, university management, institutional competition, program evaluation/assessment, and program/institutional accreditation. Planning issues at community colleges, private four-year institutions, and public four-year institutions will be examined.

EDH 750 - Special Topics in Higher Education

Credits 1-3

Exposes students to and helps them understand special topics that impact and influence higher education. Variety of special topics offered: student financial aid, enrollment management, academic organization and leadership, and student diversity.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Consent of instructor.

EDH 769 - Diverse Student Populations in Higher Education

Credits 3

Investigates traditional assumptions, including that college makes a difference and explores student-related issues, study of campus cultures, and study of diverse student populations.

EDH 780 - Seminar: Teaching in Higher Education

Credits 3

Weekly seminars in organization, materials, and

procedures related to working with college-level students. Includes survey of various teaching techniques, evaluation, and general patterns of instruction.

**EDH 785 A - Practitioner Experience Seminar**

Credits 3 – 9

Follows a three-course sequence that combines seminar discussions along with limited practical experience in an administrative office or department of a postsecondary institution. The three seminars center on academic affairs, student services and finance, and administration.

**Prerequisites** Completion of doctoral core. (Ed.D. Program)

**EDH 785 B - Practitioner Experience Seminar**

Credits 3 – 9

Follows a three-course sequence that combines seminar discussions along with limited practical experience in an administrative office or department of a postsecondary institution. The three seminars center on academic affairs, student services and finance, and administration.

**Prerequisites** Completion of doctoral core. (Ed.D. Program)

**EDH 785 C - Practitioner Experience Seminar**

Credits 3 – 9

Follows a three-course sequence that combines seminar discussions along with limited practical experience in an administrative office or department of a postsecondary institution. The three seminars center on academic affairs, student services and finance, and administration.

**Prerequisites** Completion of doctoral core. (Ed.D. Program)

**EDH 790 - Doctoral Internship**

Credits 3

Individually structured program designed to enroll the student in an administrative unit or academic experience under the joint supervision of a practicing administrator or faculty member and a university professor.

**Notes** Repeatable to six credits.

**Grading** S/F grading.

**Prerequisites** Internship-doctoral.

**EDH 791 - Doctoral Independent Study**

Credits 3

Research in area of unique interest in college student personnel work. Research conducted in cooperation with instructor.

**Notes** Repeatable to six credits.

**Prerequisites** Consent of instructor.

**EDH 796 - Dissertation Proposal Preparation**

Credits 3

Acquaints students with resources available to graduate students in conceptualizing, proposing, conducting and reporting research proposals.

**Prerequisites** Successful completion of comprehensive examination.

**EDH 799 - Dissertation**

Credits 1 - 3

Culminate research analysis and writing toward completion of dissertation and subsequent defense.

**Prerequisites** Limited to doctoral candidates, consent of instructor.

## **Educational and Clinical Studies**

The Department of Educational and Clinical Studies offers graduate degree programs at the master's level (Early Childhood, Special Education, Early Childhood Special Education, School Counseling, English Language Learning, and Clinical Mental Health). The doctoral level in special education is designed for future professors or educational leaders in special education (Autism, Learning Disabilities, Emotional/Behavioral Disabilities, Gifted, Intellectual Disabilities, Early Childhood Special Education) or early childhood education.

*Cynthia Carruthers, Ph.D., Acting Chair*  
*Cori More, Ph.D., Graduate Coordinator*  
*Kyle Higgins, Ph.D., Doctoral Coordinator*

## **Educational and Clinical Studies Faculty**

### **Chair**

**Carruthers, Cynthia** - *Full Graduate Faculty Professor; B.S., M.S., Ph.D., University of Illinois. Rebel since 1990.*

### **Graduate Coordinators**

**Higgins, Kyle** - *Full Graduate Faculty Professor; B.A., M.A., Ph.D., University of New Mexico. Rebel since 1991.*

**More, Cori** - *Full Graduate Faculty Assistant Professor; B.A., University of Montana; M.Ed., Western New Mexico University; Ph.D., University of Nevada Las Vegas. Rebel since 2013.*

### **Graduate Faculty**

**Baker, Joshua** - *Full Graduate Faculty Assistant Professor; B.A., M.A., Marshall University; Ph.D. University of North Carolina, Charlotte. Rebel since 2012.*

**Brinson, Jesse A.** - *Full Graduate Faculty Associate Professor; B.A., Clark College; M.A., University of the District of Columbia; Ed.D., Western Michigan University. Rebel since 1989.*

**Brown, Monica**  
Professor; B.A., University of Arkansas; M.Ed., Ph.D., University of Nevada Las Vegas. *Rebel since 2014.*

**Brown, Nancy** - *Associate Graduate Faculty Faculty in Residence; B.S., M.Ed., Utah State University. Rebel since 1992.*

**Filler, John** - *Full Graduate Faculty Professor; B.A., Randolph Macon College; M.A., Wake Forest University; Ph.D., Vanderbilt University. Rebel since 1989.*

**Gelfer, Jeffrey** - *Full Graduate Faculty Professor; B.A., Wilmington College; M.S., University of Oregon; Ph.D., Florida State University. Rebel since 1989.*

**Harris, Katrina** - *Full Graduate Faculty*  
Faculty in Residence; B.A., Stephens College; M.Ed.,  
Ph.D., University of Nevada, Las Vegas. *Rebel since*  
*2010.*

**Hoskins, Wendy** - *Full Graduate Faculty*  
Associate Professor; B.A., William Penn College  
M.A., Truman State University; Ph.D., Idaho State  
University. *Rebel since 2003.*

**Huerta, Margarita**  
Assistant Professor; B.A., Rice University; M.A.,  
University of Texas at Austin; M.Ed., Texas State  
University; Ph.D., Texas A&M University. *Rebel*  
*since 2014*

**Lau, Jared** - *Full Graduate Faculty*  
Assistant Professor; B.S., University of Hawaii at  
Manoa; M.S., University of San Diego; Ph.D.,  
University of North Carolina at Charlotte. *Rebel*  
*since 2013.*

**Lyons, Catherine** - *Full Graduate Faculty*  
Assistant Professor; B.S., St. Francis College; M.Ed.,  
Ph.D., University of Nevada, Las Vegas. *Rebel since*  
*2007.*

**Menda, Ana Maria**  
Assistant Professor; B.A., University of Connecticut;  
M.A., University of Connecticut; Ph.D., University  
of Miami. *Rebel since 2014.*

**Morgan, Joseph** - *Full Graduate Faculty*  
Assistant Professor; B.A., University of Illinois at  
Chicago; M.Ed., Ph.D. University of Nevada, Las  
Vegas. *Rebel since 2012.*

**Smith, Shannon** - *Full Graduate Faculty*  
Assistant Professor; B.A., Eastern Bible College  
M.A., Ashland College; Ph.D., Oregon State  
University. *Rebel since 2003.*

**Spies, Tracy** - *Full Graduate Faculty*  
Assistant Professor; B. S., University of Houston;  
M.S., Sam Houston State University; Ph.D., Texas A  
& M University. *Rebel since 2012.*

## Advanced Graduate Certificate in Addiction Studies

### Plan Description

The Department of Educational and Clinical Studies offers Advanced Graduate Certificates in Addiction Studies. The certificate program is designed for individuals already holding master's degrees in counseling who are seeking to enhance their professional counseling practice and licensure options.

The Advanced Graduate Certificate in Addictions Studies meets the needs of health professionals such as marriage and family therapists, community counselors, rehabilitation counselors, school counselors, physicians, psychologists, social workers, and behavioral health therapists by providing graduate addiction training to help them address client needs.

Faculty members in the Department of Educational and Clinical Studies endeavor to promote excellence in counselor education and counseling research. Our graduate counseling programs prepare students to:

1. Serve as professional counselors, advocates, and leaders who maximize opportunities for individuals, groups, and communities with a particular emphasis on helping underserved and oppressed client populations;
2. Address developmental, academic, career, mental health, socio-cultural, and wellness needs of clients seeking counseling;
3. Help individuals, groups and communities strive to find meaning, involvement, worth, and dignity in their lives;
4. Engage in action research and program evaluations to further the knowledge base and best practice initiatives of the counseling profession; and
5. Advocate with local, state, and national organizations to promote client and societal wellbeing.

### Plan Admission Requirements



Applications available on the UNLV Graduate College website.

Students must already be holding a master's degree in counseling, or be currently admitted to the Clinical and Mental Health Counseling M.S. program at UNLV.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Con-Current Master's Track**

Total Credits Required: 12

Course Requirements

#### **Required Courses – Credits: 9**

Complete 9 credits of advisor-approved coursework.

#### **Final Project – Credits: 3**

CED 787 - Individual Research

Certificate Requirements

1. Completion of a minimum of 12 credit hours with a minimum GPA of 3.00.
2. Students who receive an F or more than two C grades will be separated from the program.
3. A minimum of six semester hours of credit must be taken each semester, including summer.
4. The courses listed above may only be taken after the core degree requirements for the Clinical and Mental Health Counseling Program are met.

Certificate Completion Requirements

*See Plan Certificate Completion Requirements below.*

#### **Subplan 2 Requirements: Post-Master's Track**

Total Credits Required: 24

Course Requirements

#### **Required Courses – Credits: 21**

Complete 21 credits of advisor-approved coursework.

#### **Final Project – Credits: 3**

CED 787 - Individual Research

Certificate Requirements

1. Completion of a minimum of 24 credit hours with a minimum GPA of 3.00.
2. Students who receive an F or more than two C grades will be separated from the program.
3. A minimum of six semester hours of credit must be taken each semester, including summer.

Certificate Completion Requirements

*See Plan Certificate Completion Requirements below.*

#### **Plan Certificate Completion Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.
2. The student must successfully complete the final project.

## Advanced Graduate Certificate in Mental Health Counseling

### Plan Description

The Department of Educational and Clinical Studies offers Advanced Graduate Certificates in Community Mental Health Counseling. The certificate program is designed for individuals already holding master's degrees in counseling who are seeking to enhance their professional counseling practice and licensure options.

The Advanced Graduate Certificate in Mental Health Counseling is targeted primarily toward those individuals who have graduated from CACREP accredited or equivalent programs, but do not meet the necessary educational requirements for the LPC in the State of Nevada.

Faculty members in the Department of Educational and Clinical Studies endeavor to promote excellence in counselor education and counseling research. Our graduate counseling programs prepare students to:

1. Serve as professional counselors, advocates, and leaders who maximize opportunities for individuals, groups, and communities with a particular emphasis on helping underserved and oppressed client populations;
2. Address developmental, academic, career, mental health, socio-cultural, and wellness needs of clients seeking counseling;
3. Help individuals, groups and communities strive to find meaning, involvement, worth, and dignity in their lives;
4. Engage in action research and program evaluations to further the knowledge base and best practice initiatives of the counseling profession; and
5. Advocate with local, state, and national organizations to promote client and societal wellbeing.

The certificate consists of 12-24 credits, based on the student's master's degree training.

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

The Advanced Graduate Certificate in Mental Health Counseling is an extension of the M.S. degree and is geared for those individuals who have graduated from CACREP accredited or equivalent programs, but do not meet the necessary educational requirements for the Nevada licensure for Clinical Professional Counselors (LCPC).

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Post CACREP Community Counseling Master's Track**

Total Credits Required: 12

Course Requirements

#### **Required Courses – Credits: 12**

Complete 12 credits of advisor-approved coursework.

Certificate Requirements

1. Completion of a minimum of 12 credit hours with a minimum GPA of 3.00.
2. Students who receive an F or more than two C grades will be separated from the program.
3. A minimum of six semester hours of credit must be taken each semester, including summer.

Certificate Completion Requirements

*See Plan Certificate Completion Requirements below.*

**Subplan 2 Requirements: Con-Current School Counseling Master's Track**

Total Credits Required: 12-24

Course Requirements

**Required Courses – Credits: 12-24**

Complete 12-24 credits of advisor-approved coursework.

Certificate Requirements

1. Completion of a minimum of 12-24 credit hours with a minimum GPA of 3.00.
2. Students who receive an F or more than two C grades will be separated from the program.
3. A minimum of six semester hours of credit must be taken each semester, including summer.

Certificate Completion Requirements

*See Plan Certificate Completion Requirements below.*

**Subplan 3 Requirements: Non-CACREP Community Counseling Master's Track**

Total Credits Required: 24

Course Requirements

**Required Courses – Credits: 24**

Complete 24 credits of advisor-approved coursework.

Certificate Requirements

1. Completion of a minimum of 24 credit hours with a minimum GPA of 3.00.
2. Students who receive an F or more than two C grades will be separated from the program.
3. A minimum of six semester hours of credit must be taken each semester, including summer.

Certificate Completion Requirements

*See Plan Certificate Completion Requirements below.*

**Subplan 4 Requirements: Post Counseling Related Master's Track**

Total Credits Required: 24

Course Requirements

**Required Courses – Credits: 24**

Complete 24 credits of advisor-approved coursework.

Certificate Requirements

1. Completion of a minimum of 24 credit hours with a minimum GPA of 3.00.
2. Students who receive an F or more than two C grades will be separated from the program.
3. A minimum of six semester hours of credit must be taken each semester, including summer.

Certificate Completion Requirements

*See Plan Certificate Completion Requirements below.*

**Plan Certificate Completion Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

## Doctor of Philosophy - Special Education

### Plan Description

The Doctor of Philosophy Degree (Ph.D.) is designed with an emphasis in the development of skills in scientific inquiry and leadership. Students enrolled in this study program gain an understanding of philosophy and theory as they relate to the conduct of research and program evaluation. Graduates pursue careers in schools, institutions of higher education, research centers and agencies that require the competencies developed through a Ph.D. course of study.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applicants to the Special Education Ph.D. program must complete the Graduate College Application for Admission and arrange to have official transcripts sent to the Graduate College. Graduate level transcripts should indicate grade point averages (and receipt of a post baccalaureate degree in special education or a related field).

The following materials also should be submitted through the online application network.

1. A letter of application that clearly articulates professional and research goals that are related to the focus of the Ph.D. degree program in Special Education;
2. Three letters of recommendation – at least one from an individual familiar with the applicant's academic performance and potential for doctoral degree completion and at least one from an individual knowledgeable of the applicant's quality of work experience;

3. Representative samples of scholarly writing, preferably in APA style, and/or other media samples related to professional study;
4. A resume of professional preparation and experience (a minimum of two to three years of professional experience in special education, general education or other relevant field as a teacher, administrator or related service provider for children and adults with disabilities and/or giftedness is preferred);
5. Scores from the verbal, quantitative and analytical sections of the Graduate Record Examination (GRE) (taken within five years from the date of application for admission). Applicants should arrange to have official notification of GRE scores sent to the Department of Educational and Clinical Studies. The department does not impose minimum GRE scores.

It is the student's responsibility to ensure that his/her applicant file is complete. Incomplete files will not be considered. Application materials for U.S. residents requesting financial support are due March 1.

Note: The department admissions committee may request additional materials and/or conduct a personal interview after reviewing initial applicant files.

In general, applicants will be expected to have a 3.50 grade point average on all graduate-level work and an indication of potential to complete all requirements of doctoral study successfully (provided through submitted writings or creative products, letters of recommendation and GRE results) to be admitted as doctoral students in the Department of Educational and Clinical Studies.

After Admission Committee review, the Doctoral Program Coordinator may recommend to the department faculty that the applicant be: 1) admitted fully to the Ph.D. program in special education, 2) admitted provisionally to the Ph.D. program or 3) denied admission to the Ph.D. program in special education. A recommendation for provisional admission may occur when an applicant has not met the criteria or prerequisites to do advanced graduate level work. Provisional admission requires the

satisfactory completion (e.g., with a minimum 3.50 grade-point average) of nine or more hours in regularly scheduled graduate courses approved by the student's advisor and departmental faculty. After completion of the provisional program, the Doctoral Coordinator and Department Chair recommend to the Graduate College that the student either be transferred to regular status or dropped from the program.

Note: To apply for a Graduate Assistantship, applicants must complete online the Graduate Assistant Application for the Department of Educational and Clinical Studies.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 72

Course Requirements

### **Required Courses – Credits: 21**

ESP 782R - Professional Seminar in Special Education  
ESP 783R - Leadership Seminar in Special Education  
ESP 784 - Seminar in Advanced Special Education Technology  
ESP 785 - Issues, Trends and Futures in Special Education  
ESP 787 - Philosophical Perspectives in Special Education  
ESP 788 - Single Subject Methods in Special Education  
ESP 789 - Grant Writing for Human Services

### **Research Courses – Credits: 6**

EPY 721 - Descriptive and Inferential Statistics: An Introduction

ESP 791 - Proposal Design and Analysis

### **Statistics Course – Credits: 3**

Complete one of the following courses, or another advisor-approved equivalent course.

EPY 722 - Inferential Statistics and Experimental Design

KIN 751 - Selected Application of Statistical Techniques I

### **Additional Research Courses – Credits: 6**

Complete 6 credits from the following list of courses, or other advisor-approved courses.

EPY 716 - Evaluation Research Methods

EPY 718 - Qualitative Research Methodologies

EPY 733 - Multivariate Statistics

EPY 790 - Research Seminar in EPY

KIN 752 - Selected Application of Statistical Techniques II

### **Internship Course – Credits: 6**

ESP 794A - Internship in Special Education Research

ESP 794A - Internship in Special Education Research

### **Leadership & Exceptionality Courses – Credits: 15**

Complete 15 credits of advisor-approved leadership and exceptionality courses from one or more of the following leadership concentrations: Parenting, Administration, Research, Diagnosis/Assessment, Transition, Early Childhood Special Education, Early Childhood Education, Higher Education, Technology, Consultation, or Curriculum.

Complete credits in two specialty areas from the following list: Autism, Learning Disabilities, Emotional Disturbance, Mental Retardation, Gifted and Talented Education, Developmental Disabilities/Children at Risk.

### **Prospectus Course – Credits: 3**

Complete the following course as an independent study supervised by the advisor.

**Dissertation – Credits: 12**

Degree Requirements

1. The program of study requires a minimum of 72 semester hours. Only credits that meet the following criteria may be included on the formal Program of Study:
  - a. Those not previously used to fulfill requirements for another degree;
  - b. Those taken while enrolled at an accredited graduate degree-granting institution in a degree-granting program;
  - c. Those taken as a non-degree seeking student (not to exceed 15 total semester hours); and
  - d. Those for which a grade of B or higher was earned.
2. Doctoral students must earn a grade of B or higher in all core curriculum courses.
3. Doctoral Students must earn a grade of B or higher in EPY 721 and EPY 722/KIN 751.
4. Doctoral students are required to spend a minimum of two consecutive semesters (Fall-Spring, Spring-Summer or Summer-Fall) in full-time resident study in the Department of Educational and Clinical Studies. Full-time resident study is defined as being enrolled in at least nine semester hours of graduate level course work from an approved Program of Study (six semester hours if the student is a graduate assistant). In cases where residency includes a semester of course work prior to submission of the Program of Study, the advisor must approve residency. Work during residency is allowed. However, if the student is employed as a graduate assistant, any additional work beyond that performed as an assistant must conform to the rules of the University and Graduate College.
5. Two-thirds of the total semester hours included on the formal Program of Study (not including dissertation) must be taken at UNLV. Faculty members of the Department

- of Educational and Clinical Studies instructing specialist's and/ or master's classes initiate an interaction with doctoral students enrolled in these courses regarding the appropriateness of both the content and performance requirements for doctoral students. Students not admitted to the doctoral program in Educational and Clinical Studies (or to another doctoral program in the College of Education) may enroll in: ESP 782 - Professional Seminar in Special Education (formerly ESP 760) and two additional Core Curriculum Courses with consent of instructor prior to formal admission.
6. The Educational and Clinical Studies Doctoral Colloquium typically is held one Friday each semester. The Doctoral Coordinator coordinates these meetings with the assistance of the special education faculty and doctoral students.
  7. The comprehensive examination is taken during the semester immediately preceding enrollment in ESP 799 Dissertation. The comprehensive examination consists of 16 hours of written examinations with eight hours structured by the student's major advisor and eight hours structured by the other internal committee members. The examinations are scheduled on two successive Fridays. The student's advisor determines the specific dates of the examination. The questions on the comprehensive examination address elements of the Core, Research, Leadership Studies, Exceptionality Specialties, and any course work taken for licensure or endorsements. The student's Doctoral Studies Committee provides general parameters from which questions are selected. "Take-home" examinations, in whole or in part, are not allowed. Students may use college provided technology for word-processing. Grading consists of three categories: Pass, Fail, and Pass with Distinction. Pass with Distinction occurs contingent upon a unanimous vote of the committee excluding the Graduate College representative. Students who fail the

comprehensive examination will be placed on probation and must wait 4 months from the date of the failed examination to re-write their exam. However, under no circumstances may the reexamination be later than the semester following the failed examination. Students not passing the comprehensive examination on the re-write will be "excused" from the program.

version to ProQuest by the posted deadline.

8. Upon successful completion of comprehensive examination, the student selects a dissertation committee (i.e., minimum of three faculty members from the Department of Educational and Clinical Studies and an outside member appointed by the Graduate College) and submits a dissertation proposal to the committee. This proposal includes an introduction, review of the literature, and a discussion of study methods. Two weeks after this proposal is submitted to the dissertation committee, the committee meets with the student to accept or reject the proposal, as well as provide a critique of its relative strengths and weaknesses. Upon acceptance of the student's dissertation proposal, a recommendation for advancement to candidacy is submitted to the Graduate College.
9. Upon completion of the full dissertation, a defense is scheduled. Students need to obtain *The Guide to Preparing and Submitting a Thesis or Dissertation* from the Graduate College web site.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic

## Master of Education - Early Childhood Education

### Plan Description

The Master of Education – Early Childhood Education is designed to provide a comprehensive contemporary program of teacher preparation and education for early childhood settings (e.g., day care, preschool education, hospitals, community education, early intervention programs, agencies, infant/toddler education and prek-2nd grade teaching license. In addition, the program provides course work beyond and above the requirements of the State of Nevada's Licensure requirements). Students will learn about the typically developing children and children with special needs and participate in field work. The program has two tracks, birth through 3 years and birth through 8 years. In the Early Childhood Education Program, students gain knowledge and skills for a variety of careers in educational and intervention programs for young children.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

In addition to meeting the admission requirements of the Graduate College, as outlined in the front of this catalog, applicants must also meet the requirements established by the Department of Educational and Clinical Studies. They are:

1. A minimum grade point average of 2.75 for all undergraduate work or a 3.00 grade point average for the last two years of undergraduate work; and
2. A letter of application/intent.

Applications are processed when all credentials required by both the Graduate College and the Department of Educational and Clinical Studies have been received by the Graduate Coordinator. The Graduate Coordinator evaluates the applicant's

credentials and recommends either 1) admission to full, contingency, or provisional graduate standing (depending on the strength of the applicant's academic credentials); or 2) denial. Those who wish to begin studies but who miss the application deadline may enroll as a non-degree graduate student. However, since there is no guarantee that courses taken as a non-degree student will count toward a degree, and since a maximum of 15 hours taken prior to admission to the program may be used to meet degree requirements, candidates are urged to seek advisement prior to registering for any course(s).

Applicants should log back into their online applications to monitor the status of the application. Official decision letters will be posted in the online application once a decision has been made. Hard-copy letters are not issued. The online decision letter will include the name of the student's advisor. Students are responsible for contacting their advisors.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Early Childhood Track**

Total Credits Required: 36  
Course Requirements

#### **Required Courses – Credits: 6**

EPY 702 - Research Methods  
ESP 722 - Multicultural Perspectives in Special Education

#### **Early Childhood Education Courses – Credits: 18**

Complete 18 credits from the following list of courses:



ECE 706 - Planning Curriculum for Young Children  
ECE 707 - Programs in Early Childhood Education  
ECE 709 - Investigations in Early Childhood Education  
ECE 711 - Science and Math for Young Children  
ESP 719B - Advanced Oral and Written Instruction Early Childhood  
ECE 722 - Theoretical Bases for Early Childhood Education  
ECE 726 - Early Education for Infants and Toddlers  
OR  
ESP 728 - Theory of Play Development

**Early Childhood Special Education Courses – Credits: 9**

ESP 772 - Family Education in Early Childhood Special Education  
ESP 773 - Assessment for Young Children with Disabilities  
ESP 775 - Strategies for Early Childhood Special Education

**Field Experience Course – Credits: 3**

ECE 781 - Early Childhood Education Field Experience

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 2 Requirements: Early Childhood Special Education Track**

Total Credits Required: 36

Course Requirements

**Required Courses – Credits: 6**

EPY 702 - Research Methods  
ESP 722 - Multicultural Perspectives in Special Education

**Early Childhood Special Education Courses – Credits: 18**

Complete 18 credits from the following list of courses:

ESP 771 - Perspectives on Early Childhood Special Education  
ESP 772 - Family Education in Early Childhood Special Education  
ESP 773 - Assessment for Young Children with Disabilities  
ESP 774 - Seminar in Curriculum Development in Early Childhood Special Education

OR

ESP 776 - Strategies for Working with Infants and Toddlers in Early Childhood Special Education  
ESP 775 - Strategies for Early Childhood Special Education

OR

ESP 776 - Strategies for Working with Infants and Toddlers in Early Childhood Special Education  
ESP 778 - Behavior Management for Early Childhood

OR

ESP 779 - Early Intervention Service Coordination

**Elective Courses – Credits: 12**

Complete twelve credits of advisor-approved ESP 700-level courses.

**Infancy Field Experience Course – Credits: 9 (Optional)**

ESP 780 - Field Experience in Early Childhood Special Education  $\bar{7}$  Infancy

**Preschool/Kindergarten Field Experience Course – Credits: 9 (Optional)**

ESP 781 - Field Experience in Early Childhood Special Education  $\bar{7}$  Preschool/Kindergarten

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Degree Requirements**

1. Students must complete a minimum of 36 credit hours with a minimum GPA of 3.00.
2. For Nevada state licensure, students must complete a total of 8 credits of fieldwork; these additional credits will not count towards the degree program.
3. Previous course work included in submitted graduate plans of study must have a grade of B or better. Only two subsequent grades of less than B- (one with an ESP or ECE prefix and one with any other prefix) will be permitted in a submitted plan of study. Under no circumstances will a Grade Point Average (GPA) of less than 3.00 be allowed on a finished plan of study. Failure to meet these standards will result in suspension from the degree program.
4. In order to be endorsed in Teaching English as a Second Language (TESL) the following four courses must be completed in addition to the courses required as part of the degree program:

TESL 651 – Theories of second language acquisition

TESL 652 – TESL Methods and Materials

TESL 653 – TESL curriculum

TESL 654 – TESL Assessment Procedures

5. Students must successfully complete and pass a comprehensive examination.
  - a. The comprehensive examination is taken during the student's last semester of coursework or in the semester immediately following completion of coursework listed on the student's Program of Studies. If student(s) do not pass the exam they will receive only one additional opportunity to take a 2nd comprehensive examination. If students opt to take the comprehensive exam the semester after completion of the coursework

listed on their Program of Studies, they must enroll in ESP 766 or another graduate course. Per Graduate College Guidelines, students must be enrolled in a minimum of 3 hours of coursework the semester they graduate.

- b. Students must apply to take comprehensive examinations. Specificare available in the Department of Educational and Clinical Studies.
6. Master's degrees must be completed within a six-year period and continuous enrollment must be maintained throughout the six years, unless a formal request for a leave of absence is approved by the department and Graduate College.

### **Plan Graduation Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for the program.

## Master of Education - English Language Learning

### Plan Description

The M.Ed. English Language Learning program is designed for individuals who hold a baccalaureate degree in elementary, secondary, or special education and seek to earn a master's degree in English Language Learning, with a focus in either English Language Learning or Bilingual Education. Admitted students are required to develop a plan of study relevant to their focus area of study.

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Admission to the Master's degree program in English Language Learning requires a minimum grade point average of 2.75 for all undergraduate work or a 3.00 for the last two years of undergraduate work. All applicants are evaluated on their scholastic record, professional accomplishments, and potential for advanced studies.

1. Completed admission application and fee
2. Set of official transcripts from all previously attended colleges and universities
3. A one-page (350 to 400 words) letter of intent should include (1) the English Language Learning or Bilingual Education focus area of interest, (2) professional and academic goals, and (3) discussion of experiences relative to the focus area of study. The letter should be uploaded on-line with the application forms through the Graduate College Apply Yourself application system.

Assistantship applications are submitted to the department through the Apply Yourself application system. International students should check with the Graduate College for current deadlines and procedures.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

Subplan 1: English Language Learning Track

Subplan 2: Bilingual Education Track

### Subplan 1 Requirements: English Language Learning Track

Total Credits Required: 37

Course Requirements

#### Required Courses - Credits: 6

EPY 702 - Research Methods  
ESP 722 - Multicultural Perspectives in Special Education

#### English Language Learning Courses - Credits: 26

TESL 750 - TESL Linguistic Theory  
TESL 751 - Theories of Second Language Acquisition  
TESL 752 - TESL Methods and Materials  
TESL 753 - TESL Curriculum  
TESL 754 - TESL Assessment Procedures  
TESL 755 - Language Acquisition and Development  
TESL 756 - Technology Assisted English Language Learning  
TESL 757 - English Language Acquisition Practicum  
TESL 759 - English Language Acquisition Seminar

#### Elective Course - Credits: 3

Complete one of the following courses:

CIS 684 - Secondary Education Curriculum  
CIG 602 - Differentiated Curriculum and Instruction  
CIE 685 - Elementary Education Curriculum

#### Culminating Experience - Credits: 2

TESL 770 - TESL Culminating Experience

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 2 Requirements: Bilingual Education Track**

Total Credits Required: 37

Course Requirements

#### **Required Courses - Credits: 6**

EPY 702 - Research Methods

ESP 722 - Multicultural Perspectives in Special Education

#### **English Language Learning Courses - Credits: 26**

TESL 750 - TESL Linguistic Theory

TESL 751 - Theories of Second Language Acquisition

TESL 752 - TESL Methods and Materials

TESL 761 - Literacy Development Bilingual Classroom

TESL 764 - Assessment Bilingual Classroom

TESL 765 - Curriculum Development Bilingual Classroom

TESL 755 - Language Acquisition and Development

TESL 756 - Technology Assisted English Language Learning

TESL 759 - English Language Acquisition Seminar

#### **Elective Course - Credits: 3**

Complete one of the following courses:

CIS 684 - Secondary Education Curriculum

CIG 602 - Differentiated Curriculum and Instruction

CIE 685 - Elementary Education Curriculum

#### **Culminating Experience - Credits: 2**

TESL 770 - TESL Culminating Experience

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Degree Requirements**

1. The master's degree program requires a minimum of 37 semester hours of approved studies and an overall cumulative GPA of 3.00 in all courses counted toward the degree. Six of these semester hours are in research (3) and multicultural perspectives (3).
2. All graduate students are held responsible for the requirements and academic policies established by the Graduate College and outlined in the front of the graduate catalog. In addition, the Department of Educational & Clinical Studies has established requirements. While these requirements may be obtained from an academic advisor, they are briefly outlined here.
3. Master's degrees must be completed within a six-year period, and continuous enrollment must be maintained throughout the six years, unless a formal request for a leave of absence is approved by the department and Graduate College.
4. The M.Ed. degree requires students to complete a minimum of 27 credit hours with the TESL prefix, EPY 702, ESP 722, either a CIE or CIS prefix course, and complete an electronic portfolio (e-portfolio) related to the focus area's professional standards.
5. The e-portfolio must contain the primary assignments and grading rubrics from all courses on the student's program of study. It is each student's responsibility to collect and retain the assignments and graded rubrics at the end of each semester. Students must earn a "B" or better on the primary assignment in order for it to be included in the e-portfolio.
6. In addition, the e-portfolio must include a matrix of the appropriate TESOL Standards linked to the primary assignments from each

- course. Further, the e-portfolio must include a table of contents and a one-page reflection for each TESOL standard. Each academic advisor will provide additional information and guidelines on the e-portfolios.
7. The e-portfolio must be completed and turned in for evaluation by each student to the academic advisor during the student's last semester of coursework or in the semester immediately following the student's last semester of required coursework.
  8. The e-portfolio will be evaluated across six academic standards and 4 performance levels:
    - a. Academic Standards:
      - i. Theory into Practice
      - ii. Professional Philosophy
      - iii. Conduct and/or Evaluate Research
      - iv. Content and Pedagogical Knowledge
      - v. Professional Standard Knowledge
      - vi. Presentation and Format
    - b. Performance Levels: (with corresponding rubrics)
      - i. Distinguished (3)
        - a. exceeds expectations
        - b. provides multiple layers of connected and convincing evidence
        - c. demonstrates exceptional performance
        - d. communicates distinctively and authoritatively
        - e. proposes original and creative solutions
      - ii. Proficient (2)
        - a. meets expectations
        - b. provides multiple sources of clear evidence
        - c. demonstrates satisfactory performance
        - d. communicates accurately
        - e. presents a clear and convincing argument
- iii. Marginal (1)
    - a. meets minimum expectations
    - b. provides some evidence
    - c. demonstrates limited performance
    - d. exhibits limited ability to communicate ideas
    - e. presents partial or faulty argument
  - iv. Unacceptable (0)
    - a. fails to meet expectations
    - b. provides little or no evidence
    - c. demonstrates insufficient or incomplete performance
    - d. exhibits lack of ability to communicate ideas
    - e. presents unsupported or incoherent argument
9. The e-portfolio will be graded Satisfactory or Unsatisfactory. A total score of 12 or greater must be attained to earn Satisfactory, and each Academic Standard must receive no less than 2 points each. Unsatisfactory completion will require re-enrolling in the

Culminating Experience. An Incomplete is not given for the Culminating Experience.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for the program.
2. The student must successfully complete and submit an e-portfolio.

## **Master of Education - School Counseling**

### **Plan Description**

The Department of Educational and Clinical Studies offers a 48 credit Master of Education (M.Ed.) – School Counseling. The master program is fully accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), the accrediting body of the American Counseling Association. Graduates of the M.Ed. programs are eligible to sit for the National Counselor Examination in order to qualify for the National Certified Counselor (NCC) credential.

The Master of Education – School Counseling degree at UNLV requires a minimum of 48 graduate semester credits and prepares educational professionals who work to meet the academic, career, personal, and social needs of culturally and linguistically diverse K-12 student populations. The program prepares school counselors to fulfill the following roles:

1. Serve as advocates, educational leaders, team members, consultants, and counselors to maximize opportunities for students to succeed academically;
2. Address the academic, career, and personal/social needs of all students in the school;
3. Serve as leaders of equity and achievement and be able to address institutional and environmental barriers impeding student progress;
4. Through the collection and dissemination of data, advocate for systemic change to promote student achievement and academic success; and
5. Become managers of resources and partnership builders, enlisting the support of parents, agencies, and community members.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

The master degree program requires that an application for admission be submitted to the Graduate College and the Department of Educational and Clinical Studies as well as transcripts of all college-level work. A minimum grade point average of 2.75 for all undergraduate work and a 3.00 for the last two years of undergraduate work is required.

Applicants must provide three letters of recommendation directly to the department along with a departmental application form that includes a writing sample. Final applicants undergo an extensive/structured personal interview. Students should refer to the department website. Students are admitted once each year, with an application deadline of February 1st.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 48

Course Requirements

### **Required Courses – Credits: 48**

CED 701 - Introduction to Counseling  
CED 703 - Counseling with Expressive Arts and Activities  
CED 711 - Counseling Appraisal and Inquiry  
CED 713 - Introduction to School Counseling  
CED 715 - Counseling and Consultation Theories  
CED 721 - Career Theories and Practices  
CED 727 - Counseling Process and Procedures  
CED 731 - Social Justice and Advocacy in Counseling  
CED 733 - Introduction to Group Counseling  
CED 735 - Substance Abuse Prevention and

Treatment

CED 741 - Practicum  
CED 743 - Ethical and Legal Issues in Counseling  
CED 750 - Advanced Seminars in School Counseling  
CED 751 - Internship in Counseling I  
CED 752 - Internship in Counseling II  
CED 753 - Internship in Counseling III  
EPY 702 - Research Methods  
EPY 711 - Human Growth and Development

### **Degree Requirements**

1. All full and part-time students entering into the M.S. program are required to enroll in the following courses during their first fall semester: CED 701 - Introduction to Counseling and CED 727 - Counseling Process and Procedures.
2. A grade of B or better is required in both CED 701 and CED 727 in order to continue taking coursework in the M.Ed. program. Students who make a grade of B- or lower (but not an F) in either CED 701 or CED 727 will be placed on probation and may not continue taking other coursework in the M.Ed. program until successfully repeating these courses. If after a second attempt a student does not make a B or better, the student will be officially separated from the graduate program.
3. Students must make a grade of B or better in CED 741 in order to enroll in CED 751. A grade of B or better is required for all internship courses (CED 751 and CED 775) or they must be repeated.
4. A student receiving a grade of F in any required course in the degree program will be officially separated from the graduate program. Students must repeat any course in which they make a grade of C- or lower. Students making three or more grades of B- or lower will be officially separated from the graduate program. In order to earn the degree, students must have a cumulative GPA of 3.0 or better.
5. Students must successfully complete and pass the final comprehensive exam.

## **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for the program.
2. The student must successfully complete and pass the final comprehensive exam.

## **Master of Education - Special Education**

### **Plan Description**

The M.Ed. program is designed to meet the needs of persons who hold a baccalaureate degree and wish to earn a master's degree in special education or early childhood education special education, with or without licensure. Students are expected to develop a plan of study that is most relevant to their educational purposes. Students seeking a license to teach should be aware that certification or endorsement requirements might limit their choices. A number of specific focus areas are available and can lead to the following Nevada Department of Education endorsements: Autism, Early Childhood Special Education, Learning Disabilities, Generalist-Mild Disabilities, Gifted and Talented, Emotional Behavioral Disorders, Intellectual Disabilities, Applied Behavioral Analysis (BCBA), or other professional areas. The Master of Education – Special Education program requires 36 credits of graduate-level coursework. Additional credits may be required for endorsement or licensure purposes.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

Learning outcomes for specific subplan tracks can be found below:

- Master of Education - Special Education; Emphasis in Generalist (K-12)
- Master of Education - Special Education; Emphasis in Gifted Education
- Master of Education - Special Education; Emphasis in Intellectual Disabilities
- Master of Education - Special Education; Teaching English as a Second Language

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.



In addition to meeting the admission requirements of the Graduate College, as outlined in the front of this catalog, applicants must also meet the requirements established by the Department of Educational and Clinical Studies. They are:

1. A minimum grade point average of 2.75 for all undergraduate work or a 3.00 grade point average for the last two years of undergraduate work. Admission to a master's degree program in special education requires that students with a GPA of less than 2.75 be admitted to the graduate program with provisional status; and
2. A letter of application/intent.

Applications are processed when all credentials required by both the Graduate College and the Department of Educational and Clinical Studies have been received by the Graduate Coordinator. The Graduate Coordinator evaluates the applicant's credentials and recommends either 1) admission to full, contingency, or provisional graduate standing (depending on the strength of the applicant's academic credentials); or 2) denial. Those who wish to begin studies but who miss the application deadline may enroll as a non-degree graduate student. However, since there is no guarantee that courses taken as a non-degree student will count toward a degree, and since a maximum of 15 hours taken prior to admission to the program may be used to meet degree requirements, candidates are urged to seek advisement prior to registering for any course(s).

Applicants should log back into their online applications to monitor the status of the application. Official decision letters will be posted in the online application once a decision has been made. Hard-copy letters are not issued. The online decision letter will include the name of the student's advisor. Students are responsible for contacting their advisors.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

## **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Applied Behavioral Analysis Track**

Total Credits Required: 36  
Course Requirements

#### **Required Courses – Credits: 6**

EPY 702 - Research Methods

ESP 722 - Multicultural Perspectives in Special Education

#### **Special Education Courses – Credits: 15**

Complete 15 credits of advisor-approved course work.

ESP 712 - Applied Behavior Analysis

ESP 733 - Management and Modification of Students with Special Needs

ESP 735 - Advanced Behavior Management

ESP 736 – Single Subject Design

ESP 739 - Advanced Educational Strategies for Students with Autism Spectrum Disorders

#### **Elective Courses – Credits: 15**

Complete 15 credits of advisor-approved course work.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 2 Requirements: Autism Track**

Total Credits Required: 36  
Course Requirements

#### **Required Courses – Credits: 6**

EPY 702 - Research Methods  
ESP 722 - Multicultural Perspectives in Special Education

**Special Education Courses – Credits: 30**

Complete 30 credits from the following list of courses, or other advisor-approved courses.

ESP 701 - Introduction to Special Education and Legal Issues  
ESP 709 - Diagnostic and Prescriptive Assessment for Diverse Learners  
ESP 715 - Communication Programming for Persons with Severe Disabilities  
ESP 719A - Advanced Oral and Written Language Instruction for Students with Disabilities  
ESP 724 - Math Methods in Special Education  
ESP 729 - Characteristics of Students with Autism Spectrum Disorders  
ESP 730 - Parent Involvement in Special and General Education  
ESP 733 - Management and Modification of Students with Special Needs  
ESP 734 - Vocational and Career Education for Persons with Disabilities in Transition  
ESP 735 - Advanced Behavior Management  
ESP 739 - Advanced Educational Strategies for Students with Autism Spectrum Disorders  
ESP 740 - Speech and Hearing Therapy for Classroom Teachers

**Licensure Fieldwork Courses – Credits: 8 (Optional)**

Students requiring Nevada state licensure must complete 8 credits of fieldwork.

ESP 720 - Field Experience in Special Education

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 3 Requirements: Early Childhood Special Education Track**

Total Credits Required: 36  
Course Requirements

**Required Courses – Credits: 30**

EPY 702 - Research Methods  
ESP 722 - Multicultural Perspectives in Special Education  
ESP 771 - Perspectives on Early Childhood Special Education  
ESP 772 - Family Education in Early Childhood Special Education  
ESP 773 - Assessment for Young Children with Disabilities  
ESP 774 - Seminar in Curriculum Development in Early Childhood Special Education  
ESP 775 - Strategies for Early Childhood Special Education  
ESP 776 - Strategies for Working with Infants and Toddlers in Early Childhood Special Education  
ESP 778 - Behavior Management for Early Childhood  
ESP 779 - Early Intervention Service Coordination

**Licensure Fieldwork Courses – Credits: 6**

Complete a minimum of 3 credits in each of the following two courses. Students requiring Nevada state licensure must complete a total of 8 credits of fieldwork.

ESP 780 - Field Experience in Early Childhood Special Education – Infancy  
ESP 781 - Field Experience in Early Childhood Special Education – Preschool/Kindergarten

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 4 Requirements: Emotional Disturbance Track**

Total Credits Required: 36  
Course Requirements

**Required Courses – Credits: 30**

EPY 702 - Research Methods  
 ESP 701 - Introduction to Special Education and Legal Issues  
 ESP 705 - Psychological and Sociological Problems of Students with Emotional Disabilities  
 ESP 706 - Advanced Educational Strategies for Students with Emotional Disabilities  
 ESP 708 - Advanced Education Strategies for Students with Disabilities  
 ESP 713 - Affective Assessment Models  
 ESP 722 - Multicultural Perspectives in Special Education  
 ESP 730 - Parent Involvement in Special and General Education  
 ESP 733 - Management and Modification of Students with Special Needs  
 ESP 734 - Vocational and Career Education for Persons with Disabilities in Transition

**Elective Courses – Credits: 6**

Complete six credits of advisor-approved ESP 700-level courses.

**Fieldwork Courses – Credits: 8 (Optional)**

Students requiring Nevada state licensure must complete 8 credits of fieldwork from one of the following courses:

ESP 720 - Field Experience in Special Education  
 ESP 737B - Emotional Disturbance

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 5 Requirements: Generalist - Mild Disabilities Track**

Total Credits Required: 36  
 Course Requirements

**Required Courses – Credits: 33**

EPY 702 - Research Methods  
 ESP 701 - Introduction to Special Education and Legal Issues  
 ESP 708 - Advanced Education Strategies for Students with Disabilities  
 ESP 709 - Diagnostic and Prescriptive Assessment for Diverse Learners  
 ESP 719A - Advanced Oral and Written Language Instruction for Students with Disabilities  
 ESP 722 - Multicultural Perspectives in Special Education  
 ESP 724 - Math Methods in Special Education  
 ESP 730 - Parent Involvement in Special and General Education  
 ESP 733 - Management and Modification of Students with Special Needs  
 ESP 734 - Vocational and Career Education for Persons with Disabilities in Transition  
 ESP 737I - Resource Room

**Elective Courses – Credits: 3**

Complete three credits of advisor-approved ESP 700-level courses.

**Licensure Fieldwork Courses – Credits: 8 (Optional)**

Students requiring Nevada state licensure must complete 8 credits of fieldwork.

ESP 720 - Field Experience in Special Education

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 6 Requirements: Gifted and Talented Track**

Total Credits Required: 36  
 Course Requirements

**Required Courses – Credits: 36**

CIT 601 - Technology Applications Elementary Curriculum

EPY 702 - Research Methods  
ESP 701 - Introduction to Special Education and Legal Issues  
ESP 717 G - Seminar in Advanced Curriculum Development  
ESP 722 - Multicultural Perspectives in Special Education  
ESP 741 - Introduction to Gifted Education  
ESP 742 - Dimensions of Giftedness  
ESP 743 - Teaching Models in Gifted Education  
ESP 745 - Experiential Learning in Gifted Education  
ESP 746 - Creativity in Gifted Education  
ESP 747 - Contemporary Considerations Gifted Education  
ESP 763Q - Data-Based Decision Making and Growth Models

**Licensure Fieldwork Courses – Credits: 8 (Optional)**

Students requiring Nevada state licensure must complete 8 credits of fieldwork.

ESP 720 - Field Experience in Special Education

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 7 Requirements: Intellectual Disabilities Track**

Total Credits Required: 36

Course Requirements

**Required Courses – Credits: 36**

EPY 702 - Research Methods  
ESP 701 - Introduction to Special Education and Legal Issues  
ESP 702 - Psychological and Social Problems in Intellectual Disabilities  
ESP 704 - Adaptive Curricular Programming for Persons with Intellectual Disabilities  
ESP 715 - Communication Programming for Persons with Severe Disabilities  
ESP 718 - Assessment of Persons with Severe

Intellectual Disabilities  
ESP 722 - Multicultural Perspectives in Special Education  
ESP 755 A - Medically Related Aspects of Disabilities  
ESP 763Q - Data-Based Decision Making and Growth Models

**Licensure Fieldwork Courses – Credits: 8 (Optional)**

Students requiring Nevada state licensure must complete 8 credits of fieldwork.

ESP 720 - Field Experience in Special Education

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 8 Requirements: Learning Disabilities Track**

Total Credits Required: 36

Course Requirements

**Required Courses – Credits: 6**

EPY 702 - Research Methods  
ESP 722 - Multicultural Perspectives in Special Education

**Special Education Courses – Credits: 30**

Complete 30 credits from the following list of courses, or other advisor-approved courses. Courses marked with an asterisk (\*) are required for Nevada state licensure.

EPY 708 - Human Learning and Development  
ESP 701 - Introduction to Special Education and Legal Issues  
ESP 707 - Theories of Learning Disabilities  
ESP 708 - Advanced Education Strategies for Students with Disabilities  
ESP 709 - Diagnostic and Prescriptive Assessment for Diverse Learners

ESP 717 C - Seminar in Advanced Curriculum Development  
ESP 719A - Advanced Oral and Written Language Instruction for Students with Disabilities  
ESP 724 - Math Methods in Special Education  
ESP 727 - Technology in Special Education  
ESP 730 - Parent Involvement in Special and General Education  
ESP 733 - Management and Modification of Students with Special Needs  
ESP 734 - Vocational and Career Education for Persons with Disabilities in Transition  
ESP 755 A - Medically Related Aspects of Disabilities

**Licensure Fieldwork Courses – Credits: 8 (Optional)**

Students requiring Nevada state licensure must complete 8 credits of fieldwork from one of the following courses:

ESP 720 - Field Experience in Special Education  
ESP 737C - Learning Disabilities

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 9 Requirements: Other Professional Areas Track**

Total Credits Required: 36  
Course Requirements

**Required Courses – Credits: 6**

EPY 702 - Research Methods  
ESP 722 - Multicultural Perspectives in Special Education

**Special Education Courses – Credits: 15**

Complete 15 credits of advisor-approved course work.

**Elective Courses – Credits: 15**

Complete 15 credits of advisor-approved course work.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Plan Degree Requirements**

1. Previous course work included in submitted graduate plans of study must have a grade of B or better. Only two subsequent grades of less than B- (one with an ESP or ECE prefix and one with any other prefix) will be permitted in a submitted plan of study. Under no circumstances will a Grade Point Average (GPA) of less than 3.00 be allowed on a finished plan of study. Failure to meet these standards will result in suspension from the degree program.
2. For Nevada state licensure, students must complete a total of 8 credits of fieldwork; any additional credits will not count towards the degree program.
3. In order to be endorsed in Teaching English as a Second Language (TESL) the following four courses must be completed in addition to the courses required as part of the degree program:
  - TESL 651 – Theories of second language acquisition
  - TESL 652 – TESL Methods and Materials
  - TESL 653 – TESL curriculum
  - TESL 654 – TESL Assessment Procedures
4. Students must successfully complete and pass a comprehensive examination.
  - a. The comprehensive examination is taken during the student's last semester of coursework or in the semester immediately following completion of coursework listed on the student's Program of Studies. If students opt to take the

comprehensive exam the semester after completion of the coursework listed on their Program of Studies, they must enroll in ESP 766 or another graduate course. Per Graduate College Guidelines, students must be enrolled in a minimum of 3 hours of coursework the semester they graduate.

- b. Students must apply to take comprehensive examinations. Specificare available in the Department of Educational and Clinical Studies.
  - c. If a student does not pass their comprehensive examination on the first attempt, they must wait 30 days after written notification from the department to reschedule the exam. This will be done in consultation with the student's advisor.
  - d. A student may retake their comprehensive examination once.
5. Master's degrees must be completed within a six-year period and continuous enrollment must be maintained throughout the six years, unless a formal request for a leave of absence is approved by the department and Graduate College.

### **Plan Graduation Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for the program.

## **Master of Science - Clinical Mental Health Counseling**

### **Plan Description**

The Department of Educational and Clinical Studies offers a 60 credit Master of Science (M.S.) – Clinical Mental Health Counseling. The master's program is fully accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), the accrediting body of the American Counseling Association. Graduates of the M.S. program are eligible to sit for the National Counselor Examination in order to qualify for the National Certified Counselor (NCC) credential.

The Clinical Mental Health Counseling program, a 60-credit hour course of study, is designed to train professional counselors for work in a variety of community and mental health settings. Community mental health counselors work in local, state, and federal agencies, as well as private for-profit and non-profit agencies.

The Clinical Mental Health Counseling M.S. degree offers a unique arena for the development of counseling theory and in depth research in issues impacting community and mental health, as well as continuing the development of professional counselors to meet the diverse needs of Southern Nevada, the region, and the nation.

Faculty members in the Department of Counselor Education endeavor to promote excellence in counselor education and counseling research. Our graduate counseling programs prepare students to:

1. Serve as professional counselors, advocates, and leaders who maximize opportunities for individuals, groups, and communities with a particular emphasis on helping underserved and oppressed client populations;
2. Address developmental, academic, career, mental health, socio-cultural, and wellness needs of clients seeking counseling;
3. Help individuals, groups and communities strive to find meaning, involvement, worth, and dignity in their lives;

4. Engage in action research and program evaluations to further the knowledge base and best practice initiatives of the counseling profession; and
5. Advocate with local, state, and national organizations to promote client and societal wellbeing.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

The master degree program requires that an application for admission be submitted to the Graduate College and the Department of Educational and Clinical Studies as well as transcripts of all college-level work. A minimum grade point average of 2.75 for all undergraduate work and a 3.00 for the last two years of undergraduate work is required.

Applicants must provide three letters of recommendation directly to the department along with a departmental application form that includes a writing sample. Final applicants undergo an extensive/structured personal interview. Students should refer to the department website. Students are admitted once each year, with an application deadline of February 1st.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 60

### Course Requirements

Required Courses – Credits: 60

CED 701 - Introduction to Counseling  
 CED 703 - Counseling with Expressive Arts and Activities  
 CED 710 - Relationships Through the Lifespan  
 CED 711 - Counseling Appraisal and Inquiry  
 CED 715 - Counseling and Consultation Theories  
 CED 721 - Career Theories and Practices  
 CED 727 - Counseling Process and Procedures  
 CED 731 - Social Justice and Advocacy in Counseling  
 CED 732 - Advanced Multicultural Counseling  
 CED 733 - Introduction to Group Counseling  
 CED 735 - Substance Abuse Prevention and Treatment  
 CED 738 - Introduction to Community Mental Health Counseling  
 CED 741 - Practicum  
 CED 743 - Ethical and Legal Issues in Counseling  
 CED 751 - Internship in Counseling I  
 CED 752 - Internship in Counseling II  
 CED 753 - Internship in Counseling III  
 CED 766 - Psychopathology and Wellness Models in Counseling  
 CED 772 - Counseling and Spirituality  
 CED 775 - Advanced Internship in Counseling  
 EPY 702 - Research Methods  
 EPY 711 - Human Growth and Development

### Degree Requirements

1. All full and part-time students entering into the M.S. program are required to enroll in the following courses during their first fall semester: CED 701 - Introduction to Counseling and CED 727 - Counseling Process and Procedures.
2. A grade of B or better is required in both CED 701 and CED 727 in order to continue taking coursework in the M.S. program. Students who make a grade of B- or lower (but not an F) in either CED 701 or CED 727 will be placed on probation and may not continue taking other coursework in the M.S. program until successfully repeating these courses. If after a second attempt a student does not make a B or better, the

student will be officially separated from the graduate program.

3. Students must make a grade of B or better in CED 741 in order to enroll in CED 751. A grade of B or better is required for all internship courses (CED 751 and CED 775) or they must be repeated.
4. A student receiving a grade of F in any required course in the degree program will be officially separated from the graduate program. Students must repeat any course in which they make a grade of C- or lower. Students making three or more grades of B- or lower will be officially separated from the graduate program. In order to earn the degree, students must have a cumulative GPA of 3.0 or better.
5. Students must successfully complete and pass the final comprehensive exam.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for the program.
2. The student must successfully complete and pass the final comprehensive exam.

### **Educational and Clinical Studies Courses**

COU 610 - Eating Disorders: Etiology and Treatment  
Credits 3

Designed as a comprehensive review of eating disorders, correlated issues, and treatment interventions. Cultural, familial, societal, and personal factors that may contribute to the development and maintenance of eating disorders. Variety of prevention and intervention strategies explored.

**Notes** This course is crosslisted with CED 410. Credit at the 600-level requires additional work.  
CED 608 - Counseling the Older Adult  
Credits 3

Overview of issues that may be encountered while counseling the older adult. Reviews information on the nature, diagnosis and treatment of common mental health problems of later life. Introduces students to services and support systems that are available to older adults and their families that will assist in the referral process.

**Notes** This course is crosslisted with CED 408. Credit at the 600-level requires additional work.

CED 620 - Identification, Assessment, and Treatment of The Process Addictions  
Credits 3

This course is designed to develop the knowledge and skills to identify, assess, and treat various process and co-occurring disorders. Emphasis will be placed on creating an understanding of the history, philosophy, and trends of addiction counseling. In addition, knowledge of the current literature that outlines theories, approaches, effective strategies, and techniques when working with these addictions will be explored. Teaching method is lecture, presentations, role plays, videos and discussion.

CED 639 - Problem Gambling Counseling I  
Credits 3

Orients students to the history, etiology and prevalence of compulsive gambling. Provides students with the knowledge of assessment tools and counseling skills. Characteristics of compulsive gambling behavior, stages of progression, distinctions and connections to other addictions, effects on



families, finances and legal issues.

**Notes** This course is crosslisted with CED 439.  
Credit at the 600-level requires additional work.

CED 640 - Problem Gambling Counseling II  
Credits 3

Provides students with a thorough understanding of client-oriented counseling modalities and strategies. Provides skills to utilize and interpret assessment tools and provide treatment planning. Practical applications and clinical skills.

**Notes** This course is crosslisted with CED 440.  
Credit at the 600 level requires additional work.

**Prerequisites** CED 639

CED 645 - Trauma and Addiction  
Credits 3

Designed to provide a working knowledge of the various ways that substance abuse and personal trauma impact each other. Emphasis on identifying signs and symptoms. Diagnostic criteria for various trauma categories and counseling approaches explored.

**Notes** This course is crosslisted with CED 445.  
Credit at the 600-level requires additional work.

CED 646 - Combat Trauma  
Credits 3

Overview of the trauma that is experienced by individuals involved in armed combat situations. The signs and symptoms of such involvement will be explored. In addition, the impact on families and communities will be addressed.

**Notes** This course is crosslisted with CED 446.  
Credit at the 600-level requires additional work.

CED 661 - Use and Application of Technology in Counseling  
Credits 3

CED 699 - Special Topics  
Credits 1-3

Graduate credit may be obtained for courses designated 600 or above. A full description of this course may be found in the UNLV Undergraduate Catalog under the corresponding 400 number.

CED 700 - Special Problems: Counseling and Educational Psychology  
Credits 1 – 6

Specialized instruction in general professional education designed to develop depth in understanding of current counseling and educational psychology problems.

**Notes** May be repeated to a maximum of six credits.

CED 701 - Introduction to Counseling  
Credits 3

Introductory course designed to provide students with understanding of the basic roles and functions of the counselors in the human services. Examination of historical roots, philosophy, current trends, and best practices in professional counseling.

CED 703 - Counseling with Expressive Arts and Activities  
Credits 3

Examination of expressive arts and activity methods for counseling with children, adolescents, and adults. Topics include play therapy, sandtray, dreamwork, and other experiential counseling interventions.

CED 710 - Relationships Through the Lifespan  
Credits 3

Students will learn the basic knowledge of relationship issues across the lifespan and how it relates to the counseling professional.

**Prerequisites** Consent of instructor.

CED 711 - Counseling Appraisal and Inquiry  
Credits 3

Theoretical and practical approach to assessing the individual. Includes development of a framework for understanding individual and group testing; case study approaches; adapting and using questionnaires, surveys, and other assessments to meet local needs; and individual differences including ethnic and cultural and gender considerations.

**Prerequisites** CED 701

CED 713 - Introduction to School Counseling  
Credits 3

Study of the roles and functions of the school counselor at the elementary, middle, and high school levels as well as history and current trends in the profession.

**Prerequisites** Graduate standing.

CED 715 - Counseling and Consultation Theories  
Credits 3

Examination of major counseling theories and consultation techniques for application in individual and group settings.

**Prerequisites** EPY 701 and admission to the department.

**CED 721 - Career Theories and Practices**  
Credits 3

Survey of current theories and practices in career counseling. Emphasis on values and decision-making process. Meets program requirements for school, community, and rehabilitation counseling.

**Prerequisites** CED 701

**CED 722 - Introduction to Child Counseling & Play Therapy**  
Credits 3

This course is designed as an examination of play therapy theories and interventions usable by professional counselors, social workers, marriage and family therapists, psychologists, nurses, mental health and related professionals who work with children.

**CED 727 - Counseling Process and Procedures**  
Credits 3

Students learn the necessary skills to establish counseling relationships, identify relevant counseling issues, and translate their understanding into an action plan for promoting lasting change. Stages of the counseling process identified, practiced, and applied.

**Prerequisites** CED 701

**CED 731 - Social Justice and Advocacy in Counseling**  
Credits 3

Seminar course designed to foster awareness, knowledge, and skills for counseling with diverse clients. Emphasizes social justice and advocacy in counseling with minority and oppressed students. Topics include culture, ethnicity, nationality, age, gender, sexual orientation, mental and physical abilities, education, family dynamics, and socioeconomic status.

**CED 732 - Advanced Multicultural Counseling**  
Credits 3

This course is designed to help students develop awareness, knowledge, skills for more effective work

with culturally diverse groups and individuals. Substantial attention will be given to intrapersonal issues, concerns related to different cultures & programming in a variety of settings.

**CED 733 - Introduction to Group Counseling**  
Credits 3

Study and practice of basic approaches to group procedures in relation to group goals, group dynamics and group leadership.

**Prerequisites** CED 701 and EPY 723

**CED 735 - Substance Abuse Prevention and Treatment**  
Credits 3

Overview of physiological and interpersonal impacts of substance abuse. Emphasis on empirically validated prevention programs, substance abuse assessment, counseling techniques, referral information, aftercare, and relapse prevention strategies.

**Prerequisites** CED 701

**CED 738 - Introduction to Community Mental Health Counseling**  
Credits 3

Introduction to community and rehabilitation counseling including historical, philosophical legislative and organizational bases; rehabilitation process, and services in public and private community settings. Emphasis on role and function of the counselor.

**CED 739 - Vocational Placement and Community Resources**  
Credits 2

Study of vocational placement techniques along with an understanding of community resources including community organizational theory and criteria for use of such facilities in the vocational adjustment and placement of the disabled and disadvantaged.

**CED 741 - Practicum**  
Credits 3

Supervised counseling practice in human service settings including work with individuals and groups. Emphasis on utilizing a variety of counseling skills and methods with diverse client populations.

**Prerequisites** CED 701, CED 727, CED 733 and EPC 723

CED 742 - Introduction to Community Counseling  
Credits 3

Provides information concerning the professional role, function, history, philosophy and practice of counseling. Role of the community-agency counselor in community, clinical, education, and business settings, as well as their interactive relationship with other professionals.

**Formerly** COU 743

**Notes** Normally taken no later than two semesters following admission to the program.

**Prerequisites** MFT 701 and admission to the department.

CED 743 - Ethical and Legal Issues in Counseling  
Credits 3

Overview of ethical, legal, and professional issues in counseling. Emphasis on best practices and ethical decision making models.

**Prerequisites** CED 701

CED 745 - Assessment, Treatment, and Case Management in Addictions  
Credits 3

Provides theoretical framework for assessing and treating individuals with addictive disorders and the practical application of managing a client's case from initial treatment stages through discharge and aftercare.

**Formerly** COU 741

**Prerequisites** MFT 731

CED 746 - Supervised Practicum in Group Counseling  
Credits 3

Supervised practice in counseling with small groups in a variety of settings.

**Notes** May be taken concurrently with EPY 744.

**Prerequisites** MFT 701, CED 715 and EPY 724, or equivalent.

CED 749 - Thesis  
Credits 3

Culminating masters level research project.

**Notes** May be repeated, but only six credits will apply to students program of study.

**Prerequisites** Consent of instructor.

CED 750 - Advanced Seminars in School Counseling  
Credits 1 – 3

Advanced studies in professional school counseling practice, theory, and research. Topics may include innovative practices, supervision, evaluation, techniques, and theory of school counseling.

**Notes** May be repeated to a maximum of twelve credits.

CED 751 - Internship in Counseling I  
Credits 1 - 3

Advanced supervised counseling practice in human service settings. Provides the opportunity to engage in all of the activities of a regularly employed staff member in an organization with program emphasis area.

**Prerequisites** CED 741

CED 752 - Internship in Counseling II  
Credits 1

Advanced supervised counseling practice in human service settings. Provides the opportunity to engage in all of the activities of a regularly employed staff member in an organization compatible with program emphasis area.

**Prerequisites** CED 741

CED 753 - Internship in Counseling III  
Credits 1

Advanced supervised counseling practice in human service settings. Provides the opportunity to engage in all of the activities of a regularly employed staff member in an organization compatible with program emphasis area.

**Prerequisites** CED 741

CED 754 - Supervised Group Practice and Theory  
Credits 3

Group theory and practice as it relates to leadership of personal growth, counseling, and therapeutic groups. Emphasis placed on leadership functions as they relate to group processes.

**Same as** EPY 754

**Prerequisites** MFT 715, CED 715

CED 755 - Planning, Management, and Evaluation of Addictions and Mental Health Programs  
Credits 3

Develops skills in applying basic management, planning, and evaluation techniques to addictions and mental health programs. Areas stressed include the relationships between program evaluation, program

planning, program effectiveness, and organizational performance.

**Formerly** COU 751

**Prerequisites** CED 745 or consent of instructor.

CED 758 - Independent Study

Credits 3

Independent study of a selected topic in professional counseling under the direction/supervision of a graduate faculty member.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Consent of instructor.

CED 766 - Psychopathology and Wellness Models in Counseling

Credits 3

Overview of psychopathology as classified in the DMS, with an emphasis on diagnosis, supportive psychopharmacology, and counseling interventions. Also overviews wellness models in counseling and highlights ways counselors can promote optimal development and wellbeing with diverse client populations.

**Prerequisites** CED 741, CED 753

CED 768 - Pre-practicum Laboratory in Counseling

Credits 3

Laboratory practice in counseling theory and techniques.

**Notes** Must be taken concurrently with EPY 753.

**Prerequisites** MFT 701, EPY 704 and admission to the department.

CED 770 - Advanced Supervised Practice in Counseling

Credits 3

Theory, research, techniques, and practice of supervising marriage and family therapists.

**Notes** May be repeated to a maximum of six credits.

CED 772 - Counseling and Spirituality

Credits 3

Application and integration of sound counseling skills into a spiritually-based counseling approach. Contemporary counseling theories and their assumptions about human nature and the role of spirituality in counseling.

**Prerequisites** Consent of instructor.

CED 775 - Advanced Internship in Counseling

Credits 3

Supervised counseling practice in a professional setting with an emphasis on developing advanced level counseling skills.

**Notes** Students will complete a minimum of 300 hours, with 150 of the hours being direct contact hours.

Course may be repeated to a maximum of twelve credits.

**Prerequisites** CED 751

CED 781 - Problem Gambling Counseling

Credits 3

Orient students to relevant literature and theoretical perspectives regarding problematic gambling, including an appreciation of its symptoms, progression, and impact across areas of one's life. Students will be provided with knowledge of current assessment measures and learn empirically-based treatment practices related to problem gambling.

CED 782 - Counseling with Potential Suicides

Credits 1 – 6

Emphasis on the helping skills to facilitate communication with the potential suicide. Principles and techniques to facilitate client self exploration that encourage self understanding and alternate actions.

**Prerequisites** CED 754 or consent of instructor.

CED 783 - Understanding and Treating Trauma

Credits 3

This course will orient students to relevant literature and theoretical perspectives regarding psychological trauma, including an appreciation of its symptoms, progression, and impact across areas of one's life. Students will be provided with knowledge of current assessment measures and learn empirically-based treatment practices related to post traumatic and acute stress disorders.

CED 784 - Co-Occurring Conditions in Counseling

Credits 3

This course will orient students to relevant literature and theoretical perspectives regarding co-occurring addictions and mental health concerns, including an appreciation of complex symptoms, progression, and impact across areas of one's life. Students will be provided with knowledge of current assessment

measures and learn empirically-based treatment practices related to co-occurring disorders.

**CED 785 - Eating Disorders Counseling**  
Credits 3

Designed as a comprehensive review of eating disorders, correlated issues, and treatment interventions. Cultural, familial, societal, and personal factors that may contribute to the development and maintenance of eating disorders will be examined.

**CED 787 - Individual Research**  
Credits 1 – 6

Individual research on a selected topic in professional counseling under the direction/supervision of a graduate faculty member.

**Prerequisites** Consent of instructor.

**CED 789 - The Student in Higher Education**  
Credits 1

Theory and practices related to counseling college students. Emphasis on both traditional and nontraditional approaches to meeting the needs of students at various types of postsecondary institutions. Interrelationship of student and institutional needs within the environment of higher education.

**CIL 543 - Literacy Instruction II: Clinic-based**  
Credits 3

Methods of instruction and assessment for intermediate grade readers and writers. Designed to help teacher candidates acquire knowledge and strategies related to literacy development and engagement through classroom application, reflection, analysis, and implementation of lessons with diverse learners through tutoring.

**Formerly** CIL 720

**Same as** EDRL 443

**Notes** This course is crosslisted with EDRL 443. Credit at the 500-level requires additional work.

**Prerequisites** CIL 542

**Corequisite** Concurrent enrollment in a practicum.

**TESL 750 - TESL Linguistic Theory**  
Credits 3

General linguistics for the TESL teacher and classroom, focusing on the nature of language, English phonology, syntax, semantics, and language change; introduction to psycholinguistics and

sociolinguistics.

**Formerly** TESL 650

**TESL 751 - Theories of Second Language Acquisition**  
Credits 3

Current philosophies and approaches to second language acquisition and instruction; attention to sociocultural influences.

**Formerly** TESL 651

**TESL 752 - TESL Methods and Materials**  
Credits 3

Methods and materials for teaching English as a second language (ESL). Design, implement, prepare, and evaluate ESL materials.

**Formerly** TESL 652.

**Prerequisites** TESL 750, TESL 751

**TESL 753 - TESL Curriculum**  
Credits 3

Principles of curriculum organization, development and adaptation of TESL curriculum.

**Formerly** TESL 653.

**Prerequisites** TESL 750, TESL 751.

**TESL 754 - TESL Assessment Procedures**  
Credits 3

Assessment of ESL students; selection of appropriate ESL assessment instruments, their administration, scoring, and interpretation.

**Formerly** TESL 654.

**Prerequisites** TESL 752, TESL 753

**TESL 755 - Language Acquisition and Development**  
Credits 3

Explores the nature of children's language acquisition, emphasizing normal development. Incorporates the application of current research to teaching strategies.

**Formerly** TESL 655.

**Prerequisites** TESL 752, TESL 753

**TESL 756 - Technology Assisted English Language Learning**  
Credits 3

Application software for ESL learning, including evaluation of software.

**Formerly** TESL 656.

**Prerequisites** TESL 754, TESL 755.

TESL 757 - English Language Acquisition Practicum  
Credits 2

Supervised field experience in an ESL setting with application of TESL methods, materials, and assessment procedures.

**Formerly** TESL 657.

**Prerequisites** TESL 754, TESL 755.

TESL 759 - English Language Acquisition Seminar  
Credits 3

Examination of seminal and current English language acquisition research through readings, writings, discussions and presentations.

**Formerly** TESL 659.

**Prerequisites** 15 graduate credits of ELA coursework.

TESL 772 - Individual Instruction in Teaching English as a Second Language  
Credits 1-9

Individual study in the analysis, synthesis, evaluation, and application or learning of issues and selected topics in teaching English as a second language.

**Notes** Maximum of 9 credits toward degree. Must be approved prior to registration.

**Prerequisites** Masters' student status.

#### Early Childhood Education

ECE 706 - Planning Curriculum for Young Children  
Credits 3

Examination of basic principles underlying the development and planning of non-handicapped early childhood education curriculum.

**Notes** Review of components of selected curricular areas.

ECE 707 - Programs in Early Childhood Education  
Credits 3

Overview of current models of early childhood education. Includes principles, research studies, and current trends as factors related to the education of young children.

ECE 709 - Investigations in Early Childhood Education  
Credits 3

Current practices and methods in early childhood

education investigated and evaluated in depth.

**Prerequisites** Consent of instructor.

ECE 710 - Planning and Administering Early Childhood Programs  
Credits 3

Investigates the basic principles involved in establishing and operating centers for the young child; examines the historical background of the early childhood education movement; and reviews theories of child development as they relate to planning, operating, and evaluating centers.

**Prerequisites** Consent of instructor.

ECE 711 - Science and Math for Young Children  
Credits 3

Preparation, by modeling, for presenting and structuring appropriate science activities/experiences for young children (PK-2) with emphasis on integrating process skills with life, earth, and physical science concepts.

**Prerequisites** Nine hours of content science, or consent of instructor.

ECE 722 - Theoretical Bases for Early Childhood Education  
Credits 3

Examination of the underlying theories and perspectives supporting early childhood education. Emphasis on the theoretical foundations for early childhood education and the application of developmental theories across domains.

ECE 726 - Early Education for Infants and Toddlers  
Credits 3

Theoretical and practical approaches to early education services for newborns, infants, toddlers, and their families. Development of infants and toddlers within the developmental domains and focuses on attachment, milestones, identification of developmental delays, and program development and evaluation.

ECE 740 - Early Language and Learning  
Credits 3

Focuses on the theory, research and practice of language development from birth through age eight. Opportunities to implement your understanding of language development for typically developing children and children with special needs.

ECE 781 - Early Childhood Education Field Experience

Credits 3-8

Includes program planning, implementing lesson plans, guidance of students, and working with families. Candidates will be placed with young children birth to age eight.

**Prerequisites** Completion of all ECE licensure coursework or consent of instructor.

ESP 700 - Problems in Special Education

Credits 1 – 6

Specialized instruction in special education designed to develop depth in understanding a current educational problem of the in-service teacher.

**Notes** Maximum of six credits accepted toward degree from special education courses in EPY 700, ESP 700, and ICG 700.

ESP 701 - Introduction to Special Education and Legal Issues

Credits 3

Survey of the characteristics, training, and educational needs of students with disabilities. Designed for graduate students in special education, general education, nursing, counseling, psychology and related fields.

**Notes** Required of all students in the Generalist Program who do not have a bachelor's degree in special education.

ESP 702 - Psychological and Social Problems in Intellectual Disabilities

Credits 3

Study and interpretation of theories and research on the learning characteristics of person with intellectual disabilities: psychological and social contributions to educative/habilitative solutions in intellectual disabilities.

ESP 703 - Prescriptive and Precision Teaching with Intellectual Disabilities

Credits 3

Cognitive, adaptive, and diagnostic-prescriptive instructional strategies and behavioral interventions for persons with intellectual disabilities and diverse educational and community settings.

ESP 704 - Adaptive Curricular Programming for Persons with Intellectual Disabilities

Credits 3

In-depth analysis and application of curricular development and implementation for persons with intellectual disabilities in diverse educational settings.

ESP 705 - Psychological and Sociological Problems of Students with Emotional Disabilities

Credits 3

Study and interpretation of theories and research concerning learning characteristics and psychological and social aspects of the student with emotional disabilities within the school setting.

ESP 706 - Advanced Educational Strategies for Students with Emotional Disabilities

Credits 3

Evaluation of the behavioral characteristics of students with emotional disabilities applied to practical classroom strategies. Application of treatment strategies and relevant research to the educational problems of students with emotional disabilities.

**Prerequisites** ESP 705

ESP 707 - Theories of Learning Disabilities

Credits 3

Study of the contemporary positions regarding learning disabilities. Curricular implications of positions emphasized.

ESP 708 - Advanced Education Strategies for Students with Disabilities

Credits 3

Advanced instructional methods and procedures applicable to the education of children with learning disabilities.

**Prerequisites** ESP 701 or 707

ESP 709 - Diagnostic and Prescriptive Assessment for Diverse Learners

Credits 3

Establishment of educationally relevant diagnostic and prescriptive teaching procedures for students who are learners (i.e., students with/or at-risk for disabilities, including those who are second language learners). Emphasis upon both individual and group prescriptive classroom methodologies.

**Prerequisites** ESP 701 or 708

ESP 712 - Applied Behavior Analysis

Credits 3

Evaluation of the application of behavior analysis in classroom, clinical, and consultative settings. Includes definition and characteristics of applied behavior analysis, basic principles of behavior, measurement and observation procedures, evaluation and analysis of behavior change, procedures for increasing and decreasing behavior, and systems applications.

ESP 713 - Affective Assessment Models

Credits 3

Study of affective behavioral testing procedures applicable to children and adolescents in public school settings. Emphasis on classroom observational techniques, as well as supplemental employment of data obtained through school relevant behavior rating scales and checklists, task analysis assessments, projective and group personality testing and case studies.

**Prerequisites** Consent of instructor.

ESP 714 - Advanced Seminar in Learning

Disabilities

Credits 3 - 6

In-depth review of recent developments and research in the field of learning disabilities.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** ESP 607

**Corequisite** ESP 611

ESP 715 - Communication Programming for Persons with Severe Disabilities

Credits 3

Critical study of disorders affecting communication of persons with severe disabilities. Emphasis on developmental considerations, ecological needs, clinical assessment, selection and implementation of augmentative systems, support services, funding, and research.

**Prerequisites** Consent of instructor.

ESP 717 A - Seminar in Advanced Curriculum

Development

Credits 1 – 9

Critical study of current curricular models in special education. Areas of emphasis: mental retardation.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** ESP 701

ESP 717 B - Seminar in Advanced Curriculum

Development

Credits 1 – 9

Critical study of current curricular models in special education. Areas of emphasis: emotional disturbance.

**Notes** May be repeated to a maximum of nine credits.

ESP 717 C - Seminar in Advanced Curriculum

Development

Credits 1 – 9

Critical study of current curricular models in special education. Areas of emphasis: learning disabilities.

**Notes** May be repeated to a maximum of nine credits.

ESP 717 D - Seminar in Advanced Curriculum

Development

Credits 1 – 9

Critical study of current curricular models in special education. Areas of emphasis: early childhood special education.

**Notes** May be repeated to a maximum of nine credits.

ESP 717 E - Seminar in Advanced Curriculum

Development

Credits 1 – 9

Critical study of current curricular models in special education. Areas of emphasis: adaptive physical education.

**Notes** May be repeated to a maximum of nine credits.

ESP 717 F - Seminar in Advanced Curriculum

Development

Credits 1 – 9

Critical study of current curricular models in special education. Areas of emphasis: parent education.

**Notes** May be repeated to a maximum of nine credits.

ESP 717 G - Seminar in Advanced Curriculum

Development

Credits 1 – 9

Critical study of current curricular models in special education. Areas of emphasis: gifted education.

**Notes** May be repeated to a maximum of nine credits.

ESP 717 H - Seminar in Advanced Curriculum

Development

Credits 1 – 9

Critical study of current curricular models in special education. Areas of emphasis: career education.

**Notes** May be repeated to a maximum of nine credits.



ESP 717 I - Seminar in Advanced Curriculum Development  
Credits 1 – 9  
Critical study of current curricular models in special education. Areas of emphasis: management and staff direction.  
**Notes** May be repeated to a maximum of nine credits.

ESP 717 J - Seminar in Advanced Curriculum Development  
Credits 1 – 9  
Critical study of current curricular models in special education. Areas of emphasis: English Language Learners  
**Notes** May be repeated to a maximum of nine credits.

ESP 718 - Assessment of Persons with Severe Intellectual Disabilities  
Credits 3  
Emphasis on diagnosis and problems encountered in assessing individuals with severe intellectual disabilities. Practice observation techniques, develop and implement ecological inventories, developmental scales, and adaptive behavior scales.  
**Prerequisites** ESP 702 or consent of instructor.

ESP 719A - Advanced Oral and Written Language Instruction for Students with Disabilities  
Credits 3  
Overview course on language development, disabilities, and delays. Information and specific strategies for identifying oral and written language difficulties in students with disabilities. Emphasis on educational applications -- designing and implementing instruction for students with disabilities.  
**Prerequisites** ESP 701

ESP 719B - Advanced Oral and Written Instruction Early Childhood  
Credits 3  
Methods and curriculum in early childhood literacy and early intervention strategies for inclusive education.  
**Prerequisites** ECE 709

ESP 720 - Field Experience in Special Education  
Credits 1 – 9  
Supervised experience in designing and using prescriptive teaching in the classroom. Areas include:

(a) intellectual disabilities, (b) emotional/behavioral disabilities, (c) learning disabilities, (d) early childhood special education, (e) autism, and (f) gifted and talented. A maximum of nine credits may be applied to a graduate program.

**Notes** May be repeated to a maximum of nine credits.

ESP 722 - Multicultural Perspectives in Special Education  
Credits 3  
Introduces trends and issues in special education relative to students with disabilities who come from culturally diverse backgrounds. Educational programming and adaptations emphasized.

ESP 724 - Math Methods in Special Education  
Credits 3  
Effective classroom methods and strategies for assessing, teaching, and monitoring the mathematical performance of students with learning difficulties. Emphasis on practical classroom techniques designed to facilitate skill acquisition, maintenance, retention, and generalization. Computation and problem-solving covered.

**Prerequisites** ESP 701, MAT 122 and MAT 123 or equivalent, and consent of instructor.

ESP 725 - Workshops in Special Education  
Credits 1 – 3  
Supervised instruction through workshops and conferences in topics relevant to special education. Emphasis on in-service education for regular and special education personnel.  
**Notes** May be repeated to a maximum of four credits.  
**Grading** S/F grading only.

ESP 726 - Policy Analysis and Development for Special Human Services  
Credits 3  
Principles and practices of policy development and critical analysis of established social policy in local, state, and federal programs and its impact on persons with exceptionalities.

ESP 727 - Technology in Special Education  
Credits 3  
Uses of computers and other technologies in the instruction of students with disabilities. Includes strategies for adapting computers and selecting software for individuals with special needs.

Principles for integrating technology into the curriculum and strategies for teaching academic subjects with technology stressed. Overviews of integrated technologies such as hypermedia and access technologies provided.

**Prerequisites** ICE 334 or ICG 754 or equivalent.

ESP 728 - Theory of Play Development

Credits 3

Critical analysis of theoretical, philosophical, empirical, and educational implications of play. Provides planning, integrating and evaluating play in the educational curriculum.

ESP 729 - Characteristics of Students with Autism Spectrum Disorders

Credits 3

Survey of the characteristics of students with autism spectrum disorders, including historical foundations, definitions, placement alternatives, and current issues.

**Prerequisites** ESP 701 and 733 or equivalent.

ESP 730 - Parent Involvement in Special and General Education

Credits 3

Overview of current involvement, rationales for parent involvement, and research that supports it. Focuses on common effort by the school, home and community to provide for students' growth through integrated successive learning experiences that allow for variation in skills, cognitive development, emotional creative abilities, and physical development.

ESP 731 - Practicum in Parental Involvement

Credits 3

Advanced practicum to involve teachers with parents of children with special needs in various aspects of special education programming in the home, school, and public agency settings. Development of parent education materials and program for parents, or prospective parents in some of the basic skills necessary for effective parenting.

**Prerequisites** ESP 730

ESP 733 - Management and Modification of Students with Special Needs

Credits 3

Provides introduction to applied behavior analysis as

it relates to teaching and managing students with special needs. Focuses on teaching new skills and managing inappropriate behavior, both academic and social. Strengths and weaknesses of common school practices for controlling students' inappropriate behaviors described.

ESP 734 - Vocational and Career Education for Persons with Disabilities in Transition

Credits 3

Consideration and design of vocational and career education programs for students with disabilities including those with intellectual disabilities, learning disabilities, emotional disturbances, and others.

ESP 735 - Advanced Behavior Management

Credits 3

Application of behavioral, psychoeducational and other management approaches for students with disabilities. Special emphasis given to implementation of behavior management techniques for students with disabilities and students in early childhood special education.

**Prerequisites** Consent of instructor.

ESP 737 - Advanced Practicum with Exceptional Children

Credits 1 – 9

Teaching and research experience with exceptional students, with special emphasis upon application, educational methods, and curricular models. Areas of emphasis are: a) mental retardation, b) emotional disturbance, c) learning disabilities, d) early childhood special education, e) research, f) gifted education, g) parent education, h) career education, i) resource room, or j) inclusive environments.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** ESP 701

ESP 737B - Emotional Disturbance

Credits 1-9

EMOTIONAL DISTURBANCE

ESP 737C - Learning Disabilities

Credits 1-9

LEARNING DISABILITIES

ESP 737I - Resource Room

Credits 1-9

RESOURCE ROOM

ESP 739 - Advanced Educational Strategies for Students with Autism Spectrum Disorders  
Credits 3

Advanced instructional methods and curricular models applicable to the education of students with autism spectrum disorders.

**Prerequisites** ESP 729 or equivalent.

ESP 740 - Speech and Hearing Therapy for Classroom Teachers  
Credits 3

Overview of common speech and hearing disabilities, with primary teacher-relevant therapeutic methods and materials applicable to general and special classroom contexts.

ESP 741 - Introduction to Gifted Education  
Credits 3

Introduction to individuals who are gifted, including definition, identification, characteristics, etiology, and nurturing factors. Relationship of creativity and concerns for underachievement, cultural differences, disabilities and gender issues of individuals who are gifted.

ESP 742 - Dimensions of Giftedness  
Credits 3

Information concerning educational procedures in all areas of functioning appropriate for gifted individuals, along with basic strategies for creativity and self-concept. Skills developed for planning, implementing, and evaluating effective programs for the gifted. Individualization, strategies for teaching, simulation and inquiry skills, and skills of higher-level thinking emphasized.

**Prerequisites** ESP 741 or equivalent.

ESP 743 - Teaching Models in Gifted Education  
Credits 3

Provides comprehensive review of teaching-learning models for use in development and implementation of curriculum for gifted students.

**Prerequisites** ESP 742 or consent of instructor.

ESP 745 - Experiential Learning in Gifted Education  
Credits 3

Connection between the gifted classroom and the world of work and postsecondary education. Focuses on breaking boundaries of school with emphasis on global issues, rapidly changing workplace, and

linkage between schools and future life experiences.

**Prerequisites** ESP 741

ESP 746 - Creativity in Gifted Education  
Credits 3

Intensive study of new approaches dealing with creative expression for the gifted student stressing strategies for creativity.

ESP 747 - Contemporary Considerations Gifted Education  
Credits 3

Current trends, research and issues in the education of students who are gifted.

**Prerequisites** ESP 746 and consent of instructor.

ESP 748 - Overview of Assistive Technology  
Credits 3

Overview of assistive technology as it relates to life skills including communication, mobility, education, recreation, vocation, independence and therapy/rehabilitation. Variety of computer access methods investigated. Underlying assumptions and legal basis explored.

**Prerequisites** ESP 701 or equivalent.

ESP 749 - Thesis  
Credits 3 – 6

**Notes** May be repeated, but only six credits applied to the student's program.

**Grading** S/F grading only.

ESP 751 - Advanced Techniques in Applied Behavior Analysis  
Credits 3

Analysis and application of the skills, practices, and knowledge in advanced theory and methods of Applied Behavior Analysis in special education. Attention given to acquiring practical skills in the theory, principles, procedures, and science of Applied Behavior Analysis with human populations and systems (e.g., classrooms and schools).

ESP 752 - Consultative Techniques in Special Education  
Credits 3

In-depth emphasis on the differing roles of the special education consultant. Attention given to acquiring practical skills in interviewing parents and teachers of exceptional children.

ESP 753 - Administration and Supervision of Special Education Programs

Credits 3

Investigation of existing special education administrative units, pupil placement procedures, student staffing, program reimbursement procedures, and federal funding models.

**Prerequisites** Consent of area coordinator.

ESP 755 A - Medically Related Aspects of Disabilities

Credits 3

Course emphasizes medical bases of typical and atypical development for individuals across the lifespan. Physical systems and disabilities; etiologies, symptoms, and psychosocial implications of disabilities and medical conditions; and interventions, treatment strategies, resources, transition/vocational implications are addressed.

ESP 755 B - Medically Related Aspects of Disabilities

Credits 3

Course emphasizes medical bases of typical and atypical development for young children birth to eight with developmental delays. Physical systems and disabilities; etiologies, symptoms, and psychosocial implications of disabilities and medical conditions; and interventions, treatment strategies, resources, transition/vocational implications are addressed.

ESP 757 - Assistive Technology Assessment

Credits 3

Presents variety of procedures for gathering data to identify assistive technology needs. Role of team decision making in the assessment process to determine appropriate assistive technology solutions described. Integration of assistive and educational technologies also investigated.

**Prerequisites** ESP 748, ESP 701.

ESP 758 - Collaborative Services in Assistive Technology

Credits 3

Emphasizes development of collaborative relationships that support development of student-centered assistive technology plans, including working with parents, students and related service providers. Funding issues also addressed.

**Prerequisites** ESP 701 and overview of AT (ESP 748).

ESP 759 - Assistive Technology Applications for Students with Disabilities

Credits 3

Development of functional applications of assistive technology in the areas of communication, mobility, education, recreation, vocation, independence, and therapy/rehabilitation.

**Prerequisites** ESP 701, ESP 715 and ESP 727.

ESP 763 - Seminars in Selected Special Educational Topics

Credits 1 – 3

Areas of emphasis are a) mental retardation, b) emotional disturbance, c) learning disabilities, d) autism, e) early childhood, f) gifted education, g) parent education, h) higher education, i) special education administration, j) research, k) consultation, l) curriculum, m) technology, n) ABA, o) diversity, p) professional writing, q) data-based decision making and growth models.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** ESP 760 and consent of instructor.

ESP 764 - Characteristics & Inclusive Strategies for Students with LD, ED, & MID

Credits 3

Overview of natural and characteristics of students with mild disabilities. Issues in assessment, curriculum and instruction, and placement discussed.

ESP 766 - Comprehensive Examination

Credits 3

Preparation for Comprehensive Examination.

Students enroll in this course only if they are not enrolled in coursework in the semester in which they sit for the Comprehensive Examination.

**Notes** No additional assignments are required. Only one credit will be accepted toward degree plan.

**Grading** S/F grading only.

ESP 767 - Training Program Seminar

Credits 3

In-depth analysis of special education training program roles and functions in college and university settings. Emphasis upon teaching, supervisory, and advisement functions, program and area curriculum development, program funding, program-university,

public agency and community relationships, and ancillary training program responsibilities.

**Prerequisites** Consent of instructor.

ESP 770 - Second Language Methods for Diverse Learners in Inclusive Settings

Credits 3

Study and implementation of methods and strategies for teaching English language learners (ELLs) with and without disabilities. Learner characteristics and second language development reviewed followed by practical techniques for teaching diverse second language learners across the curriculum.

ESP 771 - Perspectives on Early Childhood Special Education

Credits 3

Perspectives of national, state, and local programs in special education for young children with disabilities. Reviews variables related to: program development, classroom management, parent involvement, legislation and funding, disability condition, identification, screening and assessment, learning and developmental problems, research, normal child development and developmental deviations.

ESP 772 - Family Education in Early Childhood Special Education

Credits 3

Review of average family structure and interaction patterns, roles, expectations and conflicts; mother-infant, infant-family bonding patterns; general specific problems and needs of families of young children with disabilities; programs developed for family involvement and education; national, state and local program models and evaluation.

**Prerequisites** ESP 771 or consent of instructor.

ESP 773 - Assessment for Young Children with Disabilities

Credits 3

Focuses on subjective, objective, unstructured, and structured observations of young children with physical disabilities and disabilities of behavior, communication, learning, and development. Survey, review and critique of standardized and non-standardized tests as well as the use of test data in planning instruction.

**Prerequisites** ESP 771 or consent of instructor.

ESP 774 - Seminar in Curriculum Development in Early Childhood Special Education

Credits 3

Focuses on the identification of important components of early childhood education for young children with disabilities; critical evaluation for the suitability of various curriculum modes for various disabilities; critical evaluation of commercial materials; designing new curriculum models; and utilizing teacher-made materials.

**Prerequisites** ESP 771

ESP 775 - Strategies for Early Childhood Special Education

Credits 3

Focuses upon development of behavioral objectives, task analysis, and grouping and regrouping of children. Includes behavior modification, precision teaching, interaction analysis and microteaching procedures. Consideration of modifications of classroom physical and learning environments, reinforcement patterns, and questioning styles, etc.

**Prerequisites** ESP 771 or consent of instructor.

ESP 776 - Strategies for Working with Infants and Toddlers in Early Childhood Special Education

Credits 3

Focus is on research based practices, practical problems, and issues pertaining to the effectiveness of various interventions and strategies used with infants and toddlers (0-3) with special needs.

**Prerequisites** ESP 771 and consent of instructor.

ESP 777 - Assistive Technology Strategies for Young Children

Credits 3

Emphasizes the selection and implementation of assistive technology for young children with and without disabilities.

**Prerequisites** ESP 701 and ESP 748.

ESP 778 - Behavior Management for Early Childhood

Credits 3

Provides a background in applied behavior analysis and positive behavior support, with a focus on the application of behavior support for young children and their families. Future service providers receive important knowledge and skills for implementing positive, preventive and function-based interventions

in school, home and community environments.

**Prerequisites** ESP 771 or consent of instructor.

ESP 779 - Early Intervention Service Coordination  
Credits 3

Provides content related to staffing patterns in programs for young children with disabilities; organization and implementation of training to meet identified needs of varied paraprofessionals and professionals; supervisory and consultive roles; and budget and fiscal matters.

**Prerequisites** ESP 771 or consent of instructor.

ESP 780 - Field Experience in Early Childhood  
Special Education ̄ Infancy  
Credits 3 or 6

Intensive 15-week full- or part-time early intervention experience with high risk children and infants with disabilities and their families. Experience includes working with children below age three years in individual and small group activities, planning and implementing Individual Family Service Plans, and exploring community resources.

**Prerequisites** Consent of instructor.

ESP 781 - Field Experience in Early Childhood  
Special Education ̄ Preschool/Kindergarten  
Credits 8

Intensive 15-week full- or part-time supervised teaching experience with young children with disabilities and their families. Experience includes working with children three to six years of age in individual, small and large group activities, planning and implementing Individualized Program Plans, and exploring community resources.

**Prerequisites** Consent of instructor.

ESP 782R - Professional Seminar in Special  
Education  
Credits 3

Perceptions of exceptionality by a variety of interdisciplinary personnel.

**Prerequisites** Doctoral status or consent of instructor.

ESP 783R - Leadership Seminar in Special Education  
Credits 3

Teaches and empowers participants to become highly effective leaders in the field of special education.

Current leadership paradigms and their application to

a variety of professional roles in special education explored.

**Prerequisites** ESP 782R

ESP 784 - Seminar in Advanced Special Education  
Technology  
Credits 3

In-depth analysis concerning the impact of technology on persons with disabilities. Includes analysis and synthesis of research, local, state, and national policies and initiatives; resource allocations; funding issues; and the use of technology in higher education special education.

**Prerequisites** ESP 782R

ESP 785 - Issues, Trends and Futures in Special  
Education  
Credits 3

Concepts and techniques which facilitates students' abilities in issue analysis, issue resolution, trend impact analysis, and futures formulations. The latter includes evaluations of possibilities, probabilities, and preferences in creating the future.

**Prerequisites** ESP 782R

ESP 786 - Legal and Political Issues in Special  
Education Programming  
Credits 3

Analysis of federal, state, and local statutes, policies and titles which affect the funding and direction of programs for exceptional children. Impact of special education from social, political, and economic perspectives.

ESP 787 - Philosophical Perspectives in Special  
Education  
Credits 3

Emphasis on the sociocultural, epistemological, teleological, and ethical implications of special education programs.

**Prerequisites** ESP 782R

ESP 788 - Single Subject Methods in Special  
Education  
Credits 3

Overview of methods for evaluating the effectiveness of individual educational interventions and curricula for students with disabilities. Factors which determine when and under what conditions it is appropriate to employ different assessment strategies.

**Prerequisites** ESP 782R and EPY 721; and EPY 722 or KIN 751 or consent of instructor

ESP 789 - Grant Writing for Human Services  
Credits 3

History and pragmatics of grant proposal writing, management, and evaluation for federal, state and philanthropic support of research, demonstration programs, and personnel preparation in special education and related services.

**Prerequisites** ESP 782R

ESP 791 - Proposal Design and Analysis  
Credits 3

Formative and summative research considerations and applications, with emphasis upon practitioner-relevant proposal development, research design, and interpretive critical analyses.

**Prerequisites** ESP 782R, EPY 721, ESP 788, ESP 794A, and EPY 722 or KIN 751 or consent of instructor.

ESP 793 - Advanced Field Experience in Special Education  
Credits 3 – 6

Field-relevant applications of administrative diagnostic-prescriptive and research content to practical working situations.

**Prerequisites** Consent of instructor.

ESP 794A - Internship in Special Education Research  
Credits 3 – 6

Structured internship experiences related to (a) conducting research within the field of special education and/or early childhood education, (b) teaching university courses within the Department of Special Education, or (c) the administration of special education and/or early childhood programs.

**Prerequisites** ESP 782R, EPY 721, ESP 788, and EPY 722 or KIN 751 or consent of instructor.

ESP 794B - Internship in Special Education Teaching  
Credits 3

Structured internship experiences related to teaching university courses within the Department of Special Education.

**Prerequisites** ESP 782R, ESP 785 or consent of instructor.

ESP 796 - Dissertation Prospectus  
Credits 3

Development of appropriate field-relevant topics as a preface to dissertation writing.

**Prerequisites** ESP 782R, EPY 721, KIN 751, ESP 791, ESP 788

ESP 798 - Professional Paper in Special Education  
Credits 2

ESP 799 - Dissertation  
Credits 3 – 12

Practitioner-relevant thesis covering significant special educational topics, with appropriate applications of demonstration, research and/or model formation.

**Prerequisites** ESP 796. 3-12 credits in increments of three.

TESL 770 - TESL Culminating Experience  
Credits 1-3

TESL Culminating Experience

**Prerequisites** 33 Graduate credits.

TESLR 621 - Theories of Second Language Acquisition  
Credits 3

Current philosophies and approaches to second language acquisition and instruction; attention to sociocultural influences.

TESLR 652 - TESL Methods and Materials  
Credits 3

Methods and materials for teaching English as a second language (ESL). Design, implement, prepare, and evaluate ESL materials.

**Prerequisites** TESL 751.

TESLR 653 - TESL Curriculum  
Credits 3

Principles of curriculum organization, development, and adaptation of TESL curriculum.

**Prerequisites** TESL 752 or concurrent enrollment, consent of instructor.

TESLR 654 - TESL Assessment Procedures  
Credits 3

Assessment of ESL students; selection of appropriate ESL assessment instruments, their administration, scoring, and interpretation.

**Prerequisites** TESL 752 or concurrent enrollment, consent of instructor.

## **Teaching and Learning**

The Department of Teaching and Learning offers graduate degrees in education at the master, specialist, and doctoral levels. All Teaching and Learning graduate programs are aimed at providing the professional experiences required by teachers, field supervisors, curriculum specialists, adult educators, and future professors of education who are dedicated to school improvement.

The Department of Teaching and Learning offers the Master of Education (M.Ed.) and the Master of Science (M.S.) degrees. The M.Ed. degree requires a minimum of 37 semester hours of study including a one-credit culminating experience and a core of three semester hours in research, three semester hours in foundations, and three semester hours in curriculum and instruction. The M.S. degree requires a minimum of 39 semester hours of study including six credits of thesis and a core of six semester hours in research and three semester hours in foundations.

The Department of Teaching and Learning offers the following concentrations for a M.Ed. or M.S. degree:

- Career & Technical and Postsecondary Education
- Educational Technology
- English Language Arts Education
- Elementary Education
- Literacy Education
- Mathematics Education
- Multicultural Education
- Science Education
- Social Studies Education
- Secondary Education

The Alternative Route to Licensure (ARL)-Graduate Licensure Program (GLP) is a graduate program in the Department of Teaching & Learning leading to an elementary or secondary teaching license with the option for a Master of Education (M.Ed.) degree. The ARL-GLP program is designed for individuals who hold a bachelor's degree in a field other than education and aspire to become elementary or secondary teachers.

The Educational Specialist in Curriculum and Instruction (Ed.S.) degree program is designed for



advanced graduate work beyond the master's degree. The Ed.S. requires 33 semester hours of study including a three-credit professional paper/project. The completion of this degree will enable educators to pursue careers as curriculum developers, staff development specialists, school district administrators, and educational consultants.

The Ed.D. in Curriculum and Instruction is intended for professional educators who desire to extend and advance their studies in the theory and practice of education. The completion of this degree will enable individuals to become members of university and college faculties as well as leaders in school districts and community agencies.

The Ph.D. in Curriculum and Instruction is intended for professional educators who desire to extend and advance knowledge in the theory and practice of education as university professors and researchers. The completion of this degree will enable individuals to become skilled researchers and mentors of university students, as well as leaders in school districts and community agencies. Curricular emphasis areas within the Ed.D. and Ph.D. include:

1. Cultural Studies, International Education, Multicultural Education (CSIEME);
2. Educational Technology;
3. Literacy Education;
4. Mathematics Education;
5. Science Education;

A separate and unique Ph.D. in Teacher Education is designed for professional educators who have an interest in becoming practitioner-oriented scholars in teacher education and who are interested in teacher education as a content area for research. Completing this degree will enable individuals to answer the national call for teacher educators and researchers in this field. The program is one of only a few in the nation devoted to teacher education.

*Emily Lin, Ph.D., Chair*

*P.G. Schrader, Ph.D, Co-Coordinator of Doctoral Programs*

*Hasan Deniz, Ph.D. Co-Coordinator of Doctoral Programs*

*Travis Olson, Ph.D., Graduate Coordinator*

## Teaching and Learning Faculty

### Chair

**Lin, Emily S.Y.** - *Full Graduate Faculty Professor; B.Ed, M.A., University of British Columbia; Ph.D., University of Toronto. Rebel since 2002.*

### Doctoral Coordinators

**Deniz, Hasan** - *Full Graduate Faculty Associate Professor; B.S., Dokuz Eylul University in Turkey; M.S., Ph.D., Indiana University. Rebel since 2007.*

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**Brown, Danielle B.** - *Full Graduate Faculty Assistant Professor, B.S., M.Ed., Ph.D. Texas A&M University. Rebel since 2013.*

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**Tettegah, Sharon Y.** - *Full Graduate Faculty*  
Professor; B.A., M.A., University of California, Davis; Ph.D., University of California, Santa Barbara. *Rebel since 2015.*

**Vallett, David B.** - *Full Graduate Faculty*  
Assistant Professor; B.A., M.A., University of North Carolina Wilmington; Ph.D., George Mason University. *Rebel since 2013.*

**Zhang, Shaoan** - *Full Graduate Faculty*  
Associate Professor; B.A., M.A., Hebei Normal University; Ph.D., Old Dominion University. *Rebel since 2007.*

## Doctor of Education - Curriculum & Instruction

### Plan Description

This program is intended for professional educators who desire to extend and advance their studies in the theory and practice of education. The completion of this degree will enable individuals to become members of university faculties but particularly suited for positions as leaders in school districts and community agencies.

Upon completion of the program, graduates will:

- Have an understanding of the theoretical and historical foundations of education.
- Demonstrate knowledge and synthesis of major research in teaching and schooling.
- Demonstrate knowledge and research application in the area of emphasis:
- Career & Technical and Postsecondary Education
- Cultural Studies, International Education, and Multicultural Education
- Educational Technology
- Literacy Education
- Mathematics Education
- Science Education
- Teacher Education
- Demonstrate knowledge and skill in staff development theory, research, and practice.
- Understand and apply the major tenets of research design and analysis spanning quantitative, qualitative, and evaluation research methods.
- Demonstrate the ability to successfully design, defend, and complete an extended educational study resulting in a defensible dissertation.

Areas of emphasis include:

### **Career & Technical and Postsecondary Education**

The Doctor of Philosophy (Ph.D.) in Curriculum and Instruction with a Concentration in Career & Technical and Postsecondary Education (CTPE) is a research and professional leadership degree. It is designed to develop future leaders/educators who

will make well-informed, theory-based, research supported, and data driven decisions related to planning, organizing, delivering and evaluating the many components and systems connecting education, work, and economic development. Program graduates typically seek research and teaching faculty positions in universities; administrative and policy positions in local, state and national education and other governmental agencies; instructional/curricular leadership positions within school districts; leadership and teaching positions in secondary, community and technical colleges, and training positions in a variety of adult education and training environments. Graduates will be prepared to assume leadership positions in Southern Nevada and throughout Nevada and the Nation.

### **Cultural Studies, International Education, and Multicultural Education**

Cultural Studies is a highly interdisciplinary field, drawing on philosophy, literature, the arts, sociology, psychology, political science, technology, and media. Cultural Studies connects those scholars interested in examining and challenging relationships of power, culture, and knowledge. International Education is an umbrella term encompassing comparative education, transnational education, and pan-global indigenous studies. Included in these studies are a series of large-scale, cross-national comparisons in student achievement, teaching practice, curriculum, and educational policy. Multicultural Education is an instructional and pedagogical paradigm that integrates the history, cultural traditions, social norms, life experiences, and learned contributions that members of non-dominant groups have made to all aspects of local and global society, especially those aspects that are typically codified in PK-12 and higher education courses of study in the United States.

### **Educational Technology**

The goal of our program is to enable students to become university faculty, researchers, instructional designers, and leaders in the growing field of educational technology. The focus of the program is on content, pedagogy, technology, and a wide range of associated issues. Students will develop expertise in critical analysis, deconstruction, and research on educational technology. The program will prepare

students for a variety of professional careers related to teaching and learning in both academic and non-academic settings, such as K-12 schools, community colleges, universities, state and federal agencies, and private organizations.

### **Literacy Education**

Doctoral students in Literacy Education will be engaged in exploring relationships among language, literacy, culture and social justice. They will develop expertise in critical analysis and methodological approaches for conducting research on literacy teaching and learning (e.g., curriculum design; assessment; policy; new literacies; issues related to gender, race, and class; and attention to comparative, international, and cross-cultural studies in education). Students will have opportunities for clinical and field-based work in conjunction with our teacher education program, the Gayle A. Zeiter Literacy Development Center, the Southern Nevada Writing Project, and other community organizations. Through an emphasis on the integration of theory, research and practice, students will demonstrate a well-grounded understanding of the literacy content, pedagogy, technology, and issues associated with teaching and learning in literacy education.

### **Mathematics Education**

The purpose of the Ph.D. Program in Mathematics Education is to prepare individuals for research and teacher education careers in higher education and for leadership positions in educational settings. The program is designed to develop expertise in conceptualizing, conducting and reporting research in mathematics education and to improve student knowledge about the field of mathematics education. Students choosing this area of study will find themselves challenged with the latest ideas and theories in the field. The program is consistent with other top graduate programs and is aligned with UNLV's goals to advance the research functions of UNLV while maintaining high quality teaching.

### **Science Education**

Doctoral students electing this Ph.D./Ed.D. area of study will be engaged in developing expertise in critical analysis, deconstruction, and research on teaching and learning science including, but not limited to: curriculum design, assessment, scientific

literacy, policy, media, popular culture, issues related to race, gender, class, and attention to comparative, international, and cross-cultural studies in education. In essence, the development and offering of this Ph.D./Ed.D. emphasis is consistent with offerings at other top graduate schools of education including Penn State and The Ontario Institute for Studies in Education where these programs currently flourish. Indeed, this goal is consistent with UNLV planning documents designed to advance the research functions of UNLV while maintaining high quality teaching.

### **Teacher Education**

The Ph.D. in Teacher Education is a separate degree program from the Ph.D. in Curriculum and Instruction with an emphasis in Teacher Education. This teacher education emphasis is one of the emphasis are in Curriculum and Instruction Ph.D. and Ed.D. programs. By completing this emphasis and their program, graduates will be able to conduct scholarly research to advance knowledge in specific areas in the field of teaching and teacher education and be well prepared for an academic or professional career position that demands a strong commitment to teaching and research in teacher education. This emphasis is designed in consistence with top doctorate programs in teacher education in research institutions, such as Michigan State University, University of Wisconsin, and University of Georgia and with UNLV strategic goals to advance its research functions while maintaining high quality teaching.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Application for the Curriculum and Instruction Ed.D. in the Department of Teaching and Learning is accomplished through the UNLV Graduate College online application process. Deadline for completed and submitted applications is March 1.

Specific admission criteria for the Ed.D. – Curriculum and Instruction include:

1. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.
2. Hold a master's degree from an accredited program in an area closely related to the chosen field of specialization. Normally, 18 semester hours in education are required.
3. Have a grade point average of 3.0 or higher in all graduate level coursework. \*Please note that one third of the total program hours may be transferred from another accredited doctoral program.
4. Have completed a minimum of 2 years of successful professional educational experience upon entrance to the program.
5. Obtain three letters of recommendation from individuals who can specifically address the applicant's potential for success in the doctoral program. These letters of recommendation will be requested and submitted through the Graduate College online application system. One of the letters must be from a university faculty member addressing your past academic success and future potential in a doctoral program.
6. Submit one set of official transcripts from all previously attended colleges and universities as requested in the Graduate College online application. You may upload unofficial transcripts via the online application as a supplement if you have the documents in a digital computer file (e.g., PDF). Unofficial transcripts do NOT substitute for the official documents.
7. Submit Graduate Record Examination (GRE) scores for the General Exam. The scores should be sent directly to the Doctoral Studies Office in the Department of Curriculum and Instruction. Applicants are encouraged to provide self-reported scores for the GRE in the Standardized Tests section of the Graduate College online application.

8. Submit a Personal Statement via the Graduate College online application that addresses in detail:
  1. Emphasis area of study
  2. Reasons for pursuing a doctorate in education
  3. Expectations concerning the doctoral program
  4. Potential areas of study
  5. The name of a faculty member in the department with whom you would like to work [optional]
9. Demonstrate oral communication skills through an interview conducted by members of the C&I graduate faculty. Out-of-state applicants must contact the Coordinator of Doctoral Studies directly to make alternate arrangements to the on-campus interview.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Career & Technical and Postsecondary Education Track**

Total Credits Required: 69  
Course Requirements

#### **Required Courses – Credits: 6**

Complete two of the following courses:

CIG 761 - Theoretical Foundations of Education  
CIG 768 - Advanced Curriculum Studies  
CIG 780 - Research on Teaching and Schooling

#### **CTPE Required Courses – Credits: 18**

Complete 18 credits from the following courses:

EDW 719 - Leadership in Workforce Education and Development  
EDW 745 - Theories of Adult Learning  
EDW 746 - History and Development of Two Year

Postsecondary Institution  
EDW 747 - Workforce Education Teaching  
EDW 749R - Evaluation of Workforce Education Programs  
EDW 763 - Readings in Postsecondary Education, Workplace Learning and Performance, and Workforce Education Leadership  
EDW 765 - Fiscal Management and Administration of Workforce Programs

### **Cognate Courses – Credits: 12**

Complete 12 credit hours of advisor-approved cognate coursework related to the area of emphasis.

### **Research Courses – Credits: 9**

EPY 718 - Qualitative Research Methodologies  
EPY 721 - Descriptive and Inferential Statistics: An Introduction  
CIG 790 - Doctoral Research Seminar

### **Research Elective Courses – Credits: 3**

Complete 3 credits of advisor-approved additional research courses.

### **Internship Courses – Credits: 6**

Complete six credits of a combination of a research internship and/or a college teaching internship.

EDW 735 - Practicum in Workforce Education

### **Dissertation – Credits: 15**

CIG 799 - Dissertation

#### **Degree Requirements**

1. Complete a minimum of 69 credit hours beyond the master's degree.
2. All coursework must be approved by the doctoral student's advisor.
3. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level;
4. Complete the residency requirement for the degree through one of the three options available as described in the current Doctoral Studies Guide on the department Web site.

5. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
  6. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
  7. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval.
- Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 2 Requirements: Cultural and International Studies in Education Track**

Total Credits Required: 69

Course Requirements

### **Required Courses – Credits: 15**

CIG 662 - Theory and Research Multicultural Education  
CIG 771 - Comparative Studies in Learning, Teaching, and Curriculum  
CIG 772 - Introduction to Cultural Studies in Education  
CIG 773 - Critical Literacies/Critical Pedagogies  
CIG 768 - Advanced Curriculum Studies

### **Area of Emphasis Elective Courses – Credits: 12**

Complete 12 credits of advisor-approved emphasis-area courses within and/or outside the department.

**Cognate Courses – Credits: 9**

Complete 9 credit hours of advisor-approved cognate coursework outside the department related to the area of emphasis.

**Research Required Course – Credits: 3**

CIG 790 - Doctoral Research Seminar

**Research Elective Courses – Credits: 9**

Complete three of the following courses, or any 600- or 700-level advisor-approved research elective course within and/or outside the department. Students should check with the relevant department to ensure they meet any admission and/or prerequisite requirements.

CIG 690 - Teachers as Action Researchers  
 EPY 718 - Qualitative Research Methodologies  
 EPY 719 - Advanced Qualitative Research  
 EPY 721 - Descriptive and Inferential Statistics: An Introduction  
 EPY 729 - Qualitative Case Study Research  
 EPY 730 - Advanced Research Methods  
 EPY 738 - Discourse Analysis

**Internship Course – Credits: 6**

Complete 6 credits of internship. This can include a combination of a research internship and/or a college teaching internship.

CIG 791 - Internship in Curriculum and Instruction

**Dissertation – Credits: 15**

CIG 799 - Dissertation

**Degree Requirements**

1. Complete a minimum of 69 credit hours beyond the master's degree.
2. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level.
3. Twelve credit hours (drawn from electives, cognate, and/or research courses) must be taken outside the Department of Teaching and Learning.

4. Complete the residency requirement for the degree through one of the three options available as described in the current Doctoral Studies Guide on the department Web site.
5. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
6. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
7. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval. The qualifying examination will center on three areas: (a) Emphasis area; (b) Cognate; and (c) Research, with a particular focus on developing the dissertation proposal. (See the Doctoral Handbook for more detailed information on this process.)

**Graduation Requirements**

*See Plan Graduation Requirements below.*

**Subplan 3 Requirements: Educational Technology Track**

Total Credits Required: 69  
 Course Requirements

**Required Courses – Credits: 12**

CIT 770 - Foundations in Technology & Learning  
 CIT 778 - Instructional Design  
 CIT 780 - Educational Technology Research and

Practice  
CIT 782 - Distance Education Issues and Trends

**Area of Emphasis Elective Courses – Credits: 15**

Complete 15 credits of advisor-approved emphasis-area courses within and/or outside the department.

**Cognate Courses – Credits: 9**

Complete 9 credits of advisor-approved cognate coursework relating to the area of interest.

**Research Required Courses – Credits: 9**

CIG 790 - Doctoral Research Seminar  
EPY 718 - Qualitative Research Methodologies  
EPY 721 - Descriptive and Inferential Statistics: An Introduction

**Research Elective Course – Credits: 3**

Complete one of the following courses:

EPY 716 - Evaluation Research Methods  
EPY 722 - Inferential Statistics and Experimental Design  
EPY 726 - Advanced Evaluation Research Methods  
EPY 730 - Advanced Research Methods  
EPY 733 - Multivariate Statistics

**Internship Course – Credits: 6**

CIG 791 - Internship in Curriculum and Instruction

**Dissertation – Credits: 15**

CIG 799 - Dissertation

**Degree Requirements**

1. Complete a minimum of 69 credit hours beyond the master's degree.
2. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level.
3. Complete the residency requirement for the degree through one of the three options available as described in the current Doctoral Studies Guide on the department Web site.

4. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval. The qualifying examination will center on three areas: (a) Emphasis area; (b) Cognate; and (c) Research, with a particular focus on developing the dissertation proposal. (See the Doctoral Handbook for more detailed information on this process.)

**Graduation Requirements**

*See Plan Graduation Requirements below.*

**Subplan 4 Requirements: Literacy Education Track**

Total Credits Required: 69

**Course Requirements**

**Required Courses – Credits: 15**

CIG 761 - Theoretical Foundations of Education  
CIG 772 - Introduction to Cultural Studies in Education  
CIL 774 - Historical Foundations of Literacy Research and Instruction



CIL 776 - Social and Political Issues in Literacy  
CIG 780 - Research on Teaching and Schooling

**Area of Emphasis Elective Courses – Credits: 12**

Complete 12 credits from the following list of courses, or any 600- or 700-level advisor-approved courses in the English Department. Students should check with the relevant department to ensure they meet any admission and/or prerequisite requirements.

CIL 784 - Theory and Research in Literacy  
CIL 782 - Theory and Research in the English/Language Arts  
CIL 688 - Historical Development of Literature  
CIL 747 - Literary Theories and Children's Literature  
CIG 773 - Critical Literacies/Critical Pedagogies

**Cognate Courses – Credits: 9**

Complete 9 credits of advisor-approved cognate coursework relating to and broadening the area of interest.

**Research Required Courses – Credits: 9**

CIG 790 - Doctoral Research Seminar  
EPY 718 - Qualitative Research Methodologies  
EPY 721 - Descriptive and Inferential Statistics: An Introduction

**Research Elective Courses – Credits: 3**

Complete one of the following courses, or another research course from within the College of Education or from one of the departments across campus.

EPY 729 - Qualitative Case Study Research  
EPY 738 - Discourse Analysis  
EPY 716 - Evaluation Research Methods  
EPY 722 - Inferential Statistics and Experimental Design  
EPY 730 - Advanced Research Methods  
EPY 733 - Multivariate Statistics

**Internship Course – Credits: 6**

Complete 6 credits of internship. This can include a combination of a research internship and/or a college teaching internship.

CIG 791 - Internship in Curriculum and Instruction

**Dissertation – Credits: 15**

CIG 799 - Dissertation

**Degree Requirements**

1. Complete a minimum of 69 credit hours beyond the master's degree.
2. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level.
3. Complete the residency requirement for the degree through one of the three options available as described in the current Doctoral Studies Guide on the department Web site.
4. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval.

**Graduation Requirements**

*See Plan Graduation Requirements below.*

**Subplan 5 Requirements: Mathematics Education Track**

Total Credits Required: 69

## Course Requirements

### **Required Courses – Credits: 15**

CIG 761 - Theoretical Foundations of Education

CIG 620 - Principles of Learning Mathematics

CIG 780 - Research on Teaching and Schooling

CIG 783 - Theory and Research in School

Mathematics

CIG 787 - Individual Instruction in Mathematics

Education

### **Area of Emphasis Elective Courses – Credits: 12**

Complete 12 of electives within your area of emphasis, or any 600- or 700-level advisor-approved course with a MAT, CIG, CIE, or CIS prefix.

Students should check with the relevant department to ensure they meet any admission and/or prerequisite requirements.

### **Cognate Courses – Credits: 9**

Complete 9 credit hours of advisor-approved cognate coursework relating to the area of interest.

### **Research Required Courses – Credits: 9**

CIG 790 - Doctoral Research Seminar

EPY 718 - Qualitative Research Methodologies

EPY 721 - Descriptive and Inferential Statistics: An Introduction

### **Research Elective Courses – Credits: 3**

Complete one of the following courses:

EPY 716 - Evaluation Research Methods

EPY 722 - Inferential Statistics and Experimental Design

EPY 726 - Advanced Evaluation Research Methods

EPY 730 - Advanced Research Methods

EPY 733 - Multivariate Statistics

### **Internship Course – Credits: 6**

CIG 791 - Internship in Curriculum and Instruction

### **Dissertation – Credits: 15**

CIG 799 - Dissertation

Degree Requirements

1. Complete a minimum of 69 credit hours beyond the master's degree.
2. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level.
3. Complete the residency requirement for the degree through one of the three options available as described in the current Doctoral Studies Guide on the department Web site.
4. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval.

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 6 Requirements: Science Education Track**

Total Credits Required: 69

Course Requirements

### **Required Courses – Credits: 12**

CIG 761 - Theoretical Foundations of Education

CIG 777 - Principles of Learning Science

CIG 780 - Research on Teaching and Schooling  
CIG 784 - Theory and Research in School Science

**Area of Emphasis Elective Courses – Credits: 15**

Complete 15 credits of electives within your area of emphasis, or any 600- or 700- level advisor-approved course with a BIOL, CHE, PHY, ENV, GEO, GEY, ENG, AST or SCI prefix. Students should check with the relevant department to ensure they meet any admission and/or prerequisite requirements.

CIG 775 - Theoretical Frameworks for Science Education  
CIG 776 - Philosophical Foundations of Science Education  
CIG 788 - Individual Instruction in Science Education

**Cognate Courses – Credits: 9**

Complete 9 credits of advisor-approved cognate coursework relating to the area of interest.

**Research Required Courses – Credits: 9**

CIG 790 - Doctoral Research Seminar  
EPY 718 - Qualitative Research Methodologies  
EPY 721 - Descriptive and Inferential Statistics: An Introduction

**Research Elective Course – Credits: 3**

Complete one of the following courses:

EPY 716 - Evaluation Research Methods  
EPY 722 - Inferential Statistics and Experimental Design  
EPY 726 - Advanced Evaluation Research Methods  
EPY 730 - Advanced Research Methods  
EPY 733 - Multivariate Statistics

**Internship Course – Credits: 6**

CIG 791 - Internship in Curriculum and Instruction

**Dissertation – Credits: 15**

CIG 799 - Dissertation

Degree Requirements

1. Complete a minimum of 69 credit hours beyond the master's degree.
2. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level.
3. Complete the residency requirement for the degree through one of the three options available as described in the current Doctoral Studies Guide on the department Web site.
4. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval. The qualifying examination will center on three areas: (a) Emphasis area; (b) Cognate; and (c) Research, with a particular focus on developing the dissertation proposal. (See the Doctoral Handbook for more detailed information on this process.)

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 7 Requirements: Teacher Education Track**

Total Credits Required: 69

Course Requirements

**Required Courses – Credits: 6**

Complete two of the following courses:

CIG 761 - Theoretical Foundations of Education  
CIG 768 - Advanced Curriculum Studies  
CIG 780 - Research on Teaching and Schooling

**Area of Emphasis Required Courses – Credits: 9**

Complete three of the following courses:

CIG 706 - Mentoring Strategies to Improve Teaching  
CIG 760R - Inquiry into Teacher Education  
CIG 762 - Instructional Strategies and Learning to Teach in Higher Education  
CIG 763 - Teaching and Learning to Teach

**Area of Emphasis Elective Courses – Credits: 12**

Complete four of the following courses, or other 700-level advisor-approved courses within and/or outside the department.

CIG 764 - Models of Teaching  
CIG 771 - Comparative Studies in Learning, Teaching, and Curriculum  
CIG 767 - Human Relations for the Teacher Educator  
CIG 781 - Theories and Research in Classroom Management  
CIG 766 - Evaluation of Teaching  
CIT 772 - Technology in Teacher Education

**Cognate Courses – Credits: 9**

Complete 9 credits of advisor-approved cognate coursework within the area of emphasis.

**Research Required Courses – Credits: 9**

EPY 718 - Qualitative Research Methodologies  
EPY 721 - Descriptive and Inferential Statistics: An Introduction  
CIG 790 - Doctoral Research Seminar

**Research Elective Courses – Credits: 3**

Complete one of the following courses:

EPY 716 - Evaluation Research Methods  
EPY 722 - Inferential Statistics and Experimental Design  
EPY 726 - Advanced Evaluation Research Methods  
EPY 730 - Advanced Research Methods  
EPY 733 - Multivariate Statistics

**Internship Course – Credits: 6**

CIG 791 - Internship in Curriculum and Instruction

**Dissertation –Credits: 15**

CIG 799 - Dissertation

Degree Requirements

1. Complete a minimum of 69 credit hours beyond the master's degree.
2. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level.
3. Complete the residency requirement for the degree through one of the three options available as described in the current Doctoral Studies Guide on the department Web site.
4. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval.

## Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
4. The student must also file a copy of the dissertation with the Teaching and Learning Department, College of Education

## Doctor of Philosophy - Curriculum & Instruction

### **Plan Description**

This course of study is for professional educators who desire to extend and advance knowledge in the theory and practice of education as university researchers. The completion of this degree will particularly enable individuals to become skilled researchers as members of university faculties.

Upon completion of the program, graduates will:

1. Have an understanding of the theoretical and historical foundations of education.
2. Demonstrate knowledge and synthesis of major research in teaching and schooling.
3. Demonstrate knowledge and research application in the area of emphasis:
4. Demonstrate knowledge and research application in the area of emphasis:
  - Cultural Studies, International Education, and Multicultural Education
  - Educational Technology
  - Literacy Education
  - Mathematics Education
  - Science Education
  - Teacher Education
  - Career & Technical and Postsecondary Education
5. Demonstrate college-level teaching experience.
6. Understand and apply the major tenets of research design and analysis spanning quantitative and qualitative methods. Begin to disseminate findings in refereed journals.
7. Demonstrate the ability to successfully design, defend, and complete an extended educational study resulting in a defensible dissertation.

Areas of research emphasis include:

### **Career & Technical and Postsecondary Education**

The Doctor of Philosophy (Ph.D.) in Curriculum and Instruction with a Concentration in Career & Technical and Postsecondary Education (CTPE) is a

research and professional leadership degree. It is designed to develop future leaders/educators who will make well-informed, theory-based, research supported, and data driven decisions related to planning, organizing, delivering and evaluating the many components and systems connecting education, work, and economic development. Program graduates typically seek research and teaching faculty positions in universities; administrative and policy positions in local, state and national education and other governmental agencies; instructional/curricular leadership positions within school districts; leadership and teaching positions in secondary, community and technical colleges, and training positions in a variety of adult education and training environments. Graduates will be prepared to assume leadership positions in Southern Nevada and throughout Nevada and the Nation.

### **Cultural Studies, International Education, and Multicultural Education**

Cultural Studies is a highly interdisciplinary field, drawing on philosophy, literature, the arts, sociology, psychology, political science, technology, and media. Cultural Studies connects those scholars interested in examining and challenging relationships of power, culture, and knowledge. International Education is an umbrella term encompassing comparative education, transnational education, and pan-global indigenous studies. Included in these studies are a series of large-scale, cross-national comparisons in student achievement, teaching practice, curriculum, and educational policy. Multicultural Education is an instructional and pedagogical paradigm that integrates the history, cultural traditions, social norms, life experiences, and learned contributions that members of non-dominant groups have made to all aspects of local and global society, especially those aspects that are typically codified in PK-12 and higher education courses of study in the United States.

### **Educational Technology**

The goal of our program is to enable students to become university faculty, researchers, instructional designers, and leaders in the growing field of educational technology. The focus of the program is on content, pedagogy, technology, and a wide range of associated issues. Students will develop expertise

in critical analysis, deconstruction, and research on educational technology. The program will prepare students for a variety of professional careers related to teaching and learning in both academic and non-academic settings, such as K-12 schools, community colleges, universities, state and federal agencies, and private organizations.

### **Literacy Education**

Doctoral students in Literacy Education will be engaged in exploring relationships among language, literacy, culture and social justice. They will develop expertise in critical analysis and methodological approaches for conducting research on literacy teaching and learning (e.g., curriculum design; assessment; policy; new literacies; issues related to gender, race, and class; and attention to comparative, international, and cross-cultural studies in education). Students will have opportunities for clinical and field-based work in conjunction with our teacher education program, the Gayle A. Zeiter Literacy Development Center, the Southern Nevada Writing Project, and other community organizations. Through an emphasis on the integration of theory, research and practice, students will demonstrate a well-grounded understanding of the literacy content, pedagogy, technology, and issues associated with teaching and learning in literacy education.

### **Mathematics Education**

The purpose of the Ph.D. Program in Mathematics Education is to prepare individuals for research and teacher education careers in higher education and for leadership positions in educational settings. The program is designed to develop expertise in conceptualizing, conducting and reporting research in mathematics education and to improve student knowledge about the field of mathematics education. Students choosing this area of study will find themselves challenged with the latest ideas and theories in the field. The program is consistent with other top graduate programs and is aligned with UNLV's goals to advance the research functions of UNLV while maintaining high quality teaching.

### **Science Education**

Doctoral students electing this Ph.D./Ed.D. area of study will be engaged in developing expertise in critical analysis, deconstruction, and research on

teaching and learning science including, but not limited to: curriculum design, assessment, scientific literacy, policy, media, popular culture, issues related to race, gender, class, and attention to comparative, international, and cross-cultural studies in education. In essence, the development and offering of this Ph.D./Ed.D. emphasis is consistent with offerings at other top graduate schools of education including Penn State and The Ontario Institute for Studies in Education where these programs currently flourish. Indeed, this goal is consistent with UNLV planning documents designed to advance the research functions of UNLV while maintaining high quality teaching.

### **Teacher Education**

The Ph.D. in Teacher Education is a separate degree program from the Ph.D. in Curriculum and Instruction with an emphasis in Teacher Education. This teacher education emphasis is one of the emphasis are in Curriculum and Instruction Ph.D. and Ed.D. programs. By completing this emphasis and their program, graduates will be able to conduct scholarly research to advance knowledge in specific areas in the field of teaching and teacher education and be well prepared for an academic or professional career position that demands a strong commitment to teaching and research in teacher education. This emphasis is designed in consistence with top doctorate programs in teacher education in research institutions, such as Michigan State University, University of Wisconsin, and University of Georgia and with UNLV strategic goals to advance its research functions while maintaining high quality teaching.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Specific admission criteria for the PhD in Curriculum and Instruction include:

1. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.
2. Hold a master's degree from an accredited program in an area closely related to the chosen field of specialization. Normally, 18 semester hours in education are required.
3. Have a grade point average of 3.0 or higher in all graduate level coursework. \*Please note that one third of the total program hours may be transferred from another accredited doctoral program.
4. Have completed a minimum of 2 years of successful professional educational experience upon entrance to the program.
5. Obtain three letters of recommendation from individuals who can specifically address the applicant's potential for success in the doctoral program. These letters of recommendation will be requested and submitted through the Graduate College online application system. One of the letters must be from a university faculty member addressing your past academic success and future potential in a doctoral program.
6. Submit one set of official transcripts from all previously attended colleges and universities as requested in the Graduate College online application. You may upload unofficial transcripts via the online application as a supplement if you have the documents in a digital computer file (e.g., PDF). Unofficial transcripts do NOT substitute for the official documents.
7. Submit Graduate Record Examination (GRE) scores for the General Exam. The scores should be sent directly to the Doctoral Studies Office in the Department of Curriculum and Instruction. Applicants are encouraged to provide self-reported scores for the GRE in the Standardized Tests section of the Graduate College online application.
8. Submit a Personal Statement via the Graduate College online application that addresses in detail:
  1. Emphasis area of study

2. Reasons for pursuing a doctorate in education
  3. Expectations concerning the doctoral program
  4. Potential areas of study
  5. The name of a faculty member in the department with whom you would like to work [optional]
9. Submit a written statement regarding when the residency requirement will be met (see the Doctoral Handbook. This statement should be uploaded via the Graduate College online application in the Supplementary Information section as an "Other Required Document."
  10. Demonstrate oral communication skills through an interview conducted by members of the C&I graduate faculty. Out-of-state applicants must contact the Coordinator of Doctoral Studies directly to make alternate arrangements to the on-campus interview.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Career & Technical and Postsecondary Education Track**

Total Credits Required: 72  
Course Requirements

#### **Required Courses – Credits: 6**

Complete two of the following courses:

CIG 761 - Theoretical Foundations of Education  
CIG 768 - Advanced Curriculum Studies  
CIG 780 - Research on Teaching and Schooling

#### **CTPE Required Courses – Credits: 18**

Complete 18 credits from the following courses:

EDW 719 - Leadership in Workforce Education and Development

EDW 745 - Theories of Adult Learning

EDW 746 - History and Development of Two Year Postsecondary Institution

EDW 747 - Workforce Education Teaching

EDW 749R - Evaluation of Workforce Education Programs

EDW 763 - Readings in Postsecondary Education, Workplace Learning and Performance, and Workforce Education Leadership

EDW 765 - Fiscal Management and Administration of Workforce Programs

#### **Cognate Courses – Credits: 12**

Complete 12 credit hours of advisor-approved cognate coursework related to the area of emphasis.

#### **Research Courses – Credits: 9**

EPY 718 - Qualitative Research Methodologies

EPY 721 - Descriptive and Inferential Statistics: An Introduction

CIG 790 - Doctoral Research Seminar

#### **Elective Research Courses – Credits: 6**

Complete 6 credits of advisor-approved additional research courses.

#### **Internship Courses – Credits: 6**

Complete six credits of a combination of a research internship and/or a college teaching internship.

EDW 735 - Practicum in Workforce Education

#### **Dissertation – Credits: 15**

CIG 799 - Dissertation

Degree Requirements

1. Complete a minimum of 72 credit hours beyond the master's degree.
2. All coursework must be approved by the doctoral student's advisor.
3. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level;



4. Complete the residency requirement for the degree through one of the three options available as described in the current Doctoral Studies Guide on the department Web site.
5. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
6. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
7. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval.
8. Submit an article for publication in a national refereed journal.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 2 Requirements: Cultural Studies, International Education, and Multicultural Education Track**

Total Credits Required: 72

#### Course Requirements

#### **Required Courses – Credits: 15**

CIG 662 - Theory and Research Multicultural Education  
 CIG 768 - Advanced Curriculum Studies  
 CIG 771 - Comparative Studies in Learning, Teaching, and Curriculum

CIG 772 - Introduction to Cultural Studies in Education

CIG 773 - Critical Literacies/Critical Pedagogies

#### **Area of Emphasis Elective Courses – Credits: 12**

Complete 12 credits of advisor-approved emphasis-area courses within and/or outside the department.

#### **Cognate Courses – Credits: 9**

Complete 9 credit hours of advisor-approved cognate coursework outside the department related to the area of emphasis.

#### **Research Required Course – Credits: 3**

CIG 790 - Doctoral Research Seminar

#### **Research Elective Courses – Credits: 12**

Complete 12 credits from the following list of courses, or any 600- or 700-level advisor-approved research elective course within and/or outside the department. Students should check with relevant department to ensure they meet any admission and/or prerequisite requirements.

CIG 690 - Teachers as Action Researchers

EPY 718 - Qualitative Research Methodologies

EPY 719 - Advanced Qualitative Research

EPY 721 - Descriptive and Inferential Statistics: An Introduction

EPY 729 - Qualitative Case Study Research

EPY 730 - Advanced Research Methods

EPY 738 - Discourse Analysis

#### **Internship Course – Credits: 6**

CIG 791 - Internship in Curriculum and Instruction

#### **Dissertation – Credits: 15**

CIG 799 - Dissertation

#### Degree Requirements

1. Complete a minimum of 72 credit hours beyond the master's degree.
2. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level.

3. Complete the residency requirement for the degree through one of the three options available as described in the current Doctoral Studies Guide on the department Web site.
4. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Each student must satisfy a scholarly publication requirement. This requirement can be met in one of two ways: students may submit a research study to a refereed journal; or submit a proposal for refereed presentation at an annual conference of a national organization (e.g., the Association for Cultural Studies Conference, the Comparative and International Education Conference, etc.).
7. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval.

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 3 Requirements: Educational Technology Track**

Total Credits Required: 72

Course Requirements

### **Required Courses – Credits: 12**

CIT 770 - Foundations in Technology & Learning  
 CIT 778 - Instructional Design  
 CIT 780 - Educational Technology Research and Practice  
 CIT 782 - Distance Education Issues and Trends

### **Area of Emphasis Elective Courses – Credits: 15**

Complete 15 credits of advisor-approved emphasis-area courses within and/or outside the department.

### **Cognate Courses – Credits: 9**

Complete 9 credit hours of advisor-approved cognate coursework related to the area of emphasis.

### **Research Required Courses – Credits: 9**

CIG 790 - Doctoral Research Seminar  
 EPY 718 - Qualitative Research Methodologies  
 EPY 721 - Descriptive and Inferential Statistics: An Introduction

### **Research Elective Courses – Credits: 6**

Complete two of the following courses:

EPY 716 - Evaluation Research Methods  
 EPY 722 - Inferential Statistics and Experimental Design  
 EPY 726 - Advanced Evaluation Research Methods  
 EPY 730 - Advanced Research Methods  
 EPY 733 - Multivariate Statistics

### **Internship Course – Credits: 6**

CIG 791 - Internship in Curriculum and Instruction

### **Dissertation – Credits: 15**

CIG 799 - Dissertation

Degree Requirements

1. Complete a minimum of 72 credit hours beyond the master's degree.
2. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level.
3. Complete the residency requirement for the degree through one of the three options

available as described in the current Doctoral Studies Guide on the department Web site.

4. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval.
7. Submit an article for publication in a national refereed journal.

Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 4 Requirements: Literacy Education Track**

Total Credits Required: 72

Course Requirements

#### **Required Courses – Credits: 15**

CIG 761 - Theoretical Foundations of Education

CIG 772 - Introduction to Cultural Studies in Education

CIL 774 - Historical Foundations of Literacy Research and Instruction

CIL 776 - Social and Political Issues in Literacy

CIG 780 - Research on Teaching and Schooling

#### **Area of Emphasis Elective Courses – Credits: 12**

Complete 12 credits from the following list of courses, or any 600- or 700-level advisor-approved courses in the English Department. Students should check with relevant department to ensure they meet any admission and/or prerequisite requirements.

CIG 773 - Critical Literacies/Critical Pedagogies

CIL 688 - Historical Development of Literature

CIL 747 - Literary Theories and Children's Literature

CIL 784 - Theory and Research in Literacy

CIL 782 - Theory and Research in the English/Language Arts

#### **Cognate Courses – Credits: 9**

Complete 9 credits of advisor-approved cognate coursework related to the area of emphasis.

#### **Research Required Courses – Credits: 9**

CIG 790 - Doctoral Research Seminar

EPY 718 - Qualitative Research Methodologies

EPY 721 - Descriptive and Inferential Statistics: An Introduction

#### **Research Elective Courses – Credits: 6**

Complete two of the following courses, or other research courses from within the College of Education or from departments across campus.

EPY 716 - Evaluation Research Methods

EPY 722 - Inferential Statistics and Experimental Design

EPY 729 - Qualitative Case Study Research

EPY 730 - Advanced Research Methods

EPY 733 - Multivariate Statistics

EPY 738 - Discourse Analysis

#### **Internship Course – Credits: 6**

Complete 6 credits of internship. This can include a combination of a research internship and/or a college teaching internship.

CIG 791 - Internship in Curriculum and Instruction

#### **Dissertation – Credits: 15**

CIG 799 - Dissertation

## Degree Requirements

1. Complete a minimum of 72 credit hours beyond the master's degree.
2. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level.
3. Complete the residency requirement for the degree through one of the three options available as described in the current Doctoral Studies Guide on the department Web site.
4. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval.
7. Submit an article for publication in a national refereed journal.

## Graduation Requirements

*See Plan Graduation Requirements below.*

## **Subplan 5 Requirements: Mathematics Education Track**

Total Credits Required: 72

## Course Requirements

### **Required Courses – Credits: 15**

CIG 761 - Theoretical Foundations of Education  
CIG 620 - Principles of Learning Mathematics  
CIG 780 - Research on Teaching and Schooling  
CIG 783 - Theory and Research in School Mathematics  
CIG 787 - Individual Instruction in Mathematics Education

### **Area of Emphasis Elective Courses – Credits: 12**

Complete 12 of electives within your area of emphasis, or any 600- or 700-level advisor-approved course with a MAT, CIG, CIE, or CIS prefix. Students should check with the relevant department to ensure they meet any admission and/or prerequisite requirements.

### **Cognate Courses – Credits: 9**

Complete 9 credit hours of advisor-approved cognate coursework relating to the area of emphasis.

### **Research Required Courses – Credits: 9**

CIG 790 - Doctoral Research Seminar  
EPY 718 - Qualitative Research Methodologies  
EPY 721 - Descriptive and Inferential Statistics: An Introduction

### **Research Elective Courses – Credits: 3**

Complete one of the following courses:

EPY 716 - Evaluation Research Methods  
EPY 722 - Inferential Statistics and Experimental Design  
EPY 726 - Advanced Evaluation Research Methods  
EPY 730 - Advanced Research Methods  
EPY 733 - Multivariate Statistics

### **Internship Course – Credits: 6**

CIG 791 - Internship in Curriculum and Instruction

### **Dissertation – Credits: 15**

CIG 799 - Dissertation

## Degree Requirements

1. Complete a minimum of 72 credit hours beyond the master's degree.

2. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level.
3. Complete the residency requirement for the degree through one of the three options available as described in the current Doctoral Studies Guide on the department Web site.
4. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval.
7. Submit an article for publication in a national refereed journal.

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 6 Requirements: Science Education Track**

Total Credits Required: 72

Course Requirements

#### **Required Courses – Credits: 12**

CIG 761 - Theoretical Foundations of Education  
CIG 777 - Principles of Learning Science

CIG 780 - Research on Teaching and Schooling  
CIG 784 - Theory and Research in School Science

#### **Area of Emphasis Elective Courses – Credits: 15**

Complete 15 credits of electives within your area of emphasis. Courses can be selected from the following list, or any 600- or 700- level advisor-approved course with a BIOL, CHE, PHY, ENV, GEO, GEY, ENG, AST or SCI prefix. Students should check with the relevant department to ensure they meet any admission and/or prerequisite requirements.

CIG 775 - Theoretical Frameworks for Science Education  
CIG 776 - Philosophical Foundations of Science Education  
CIG 788 - Individual Instruction in Science Education

#### **Cognate Courses – Credits: 9**

Complete 9 credit hours of advisor-approved cognate coursework relating to the area of emphasis.

#### **Research Required Courses – Credits: 9**

CIG 790 - Doctoral Research Seminar  
EPY 718 - Qualitative Research Methodologies  
EPY 721 - Descriptive and Inferential Statistics: An Introduction

#### **Research Elective Courses – Credits: 6**

Complete two of the following courses:

EPY 716 - Evaluation Research Methods  
EPY 722 - Inferential Statistics and Experimental Design  
EPY 726 - Advanced Evaluation Research Methods  
EPY 730 - Advanced Research Methods  
EPY 733 - Multivariate Statistics

#### **Internship Course – Credits: 6**

CIG 791 - Internship in Curriculum and Instruction

#### **Dissertation – Credits: 15**

CIG 799 - Dissertation

Degree Requirements

1. Complete a minimum of 72 credit hours beyond the master's degree.
2. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level.
3. Complete the residency requirement for the degree through one of the three options available as described in the current Doctoral Studies Guide on the department Web site.
4. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval.
7. Submit an article for publication in a national refereed journal.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 7 Requirements: Teacher Education Track**

Total Credits Required: 72

Course Requirements

#### **Required Courses – Credits: 6**

Complete two of the following courses:

CIG 761 - Theoretical Foundations of Education  
 CIG 768 - Advanced Curriculum Studies  
 CIG 780 - Research on Teaching and Schooling

#### **Area of Emphasis Required Courses – Credits: 9**

Complete three of the following courses:

CIG 706 - Mentoring Strategies to Improve Teaching  
 CIG 760R - Inquiry into Teacher Education  
 CIG 762 - Instructional Strategies and Learning to Teach in Higher Education  
 CIG 763 - Teaching and Learning to Teach

#### **Area of Emphasis Elective Courses – Credits: 12**

Complete four of the following courses, or other 700-level advisor-approved courses within and/or outside the department.

CIG 764 - Models of Teaching  
 CIG 766 - Evaluation of Teaching  
 CIG 767 - Human Relations for the Teacher Educator  
 CIG 771 - Comparative Studies in Learning, Teaching, and Curriculum  
 CIG 781 - Theories and Research in Classroom Management  
 CIT 772 - Technology in Teacher Education

#### **Cognate Courses – Credits: 9**

Complete 9 credits of advisor-approved cognate coursework within the area of emphasis.

#### **Research Required Courses – Credits: 9**

EPY 718 - Qualitative Research Methodologies  
 EPY 721 - Descriptive and Inferential Statistics: An Introduction  
 CIG 790 - Doctoral Research Seminar

#### **Research Elective Courses – Credits: 6**

Complete two of the following courses:

EPY 716 - Evaluation Research Methods  
 EPY 722 - Inferential Statistics and Experimental Design  
 EPY 726 - Advanced Evaluation Research Methods

EPY 730 - Advanced Research Methods

EPY 733 - Multivariate Statistics

### **Internship Course – Credits: 6**

CIG 791 - Internship in Curriculum and Instruction

### **Dissertation –Credits: 15**

CIG 799 - Dissertation

### **Degree Requirements**

1. Complete a minimum of 72 credit hours beyond the master's degree.
2. All coursework must be approved by the doctoral student's advisor.
3. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level.
4. Complete the residency requirement for the degree through one of the three options available as described in the current Doctoral Studies Guide on the department Web site.
5. Attend the Teaching and Learning Department Doctoral Colloquium held periodically throughout their years of study.
6. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
7. Pass a written qualifying examination prior to commencing work on the dissertation proposal or dissertation (See the Doctoral Handbook for more detailed information on this process). Students may begin developing their qualifying examination questions and commence their qualifying exam upon completion of minimum program requirements and advisor approval.
8. Submit an article for publication in a national refereed journal.

### **Graduation Requirements**

*See Plan Graduation Requirements below.*

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
4. The student must also file a copy of the dissertation with the Teaching and Learning Department.

## Doctor of Philosophy - Teacher Education

### Plan Description

The Ph.D. in Teacher Education in the Department of Teaching & Learning is projected for professional educators who have an interest in becoming practitioner-oriented scholars in teacher education and who are interested in teacher education as a content area for research. Completing this degree will enable individuals to answer the national call for teacher educators and researchers in this field. The program is one of only a few in the nation devoted to teacher education.

Upon completion of this program, graduates will be able to:

1. Demonstrate college-level teaching experience;
2. Connect theory and research related to teaching and learning to the practice of teaching in schools and to the practice of teaching university courses;
3. Design and conduct research using quantitative and qualitative methodologies with particular emphasis on applied research in the context of diverse schools.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.
2. Hold a master's degree from an accredited program in an area closely related to the chosen field of specialization. Normally, 18 semester hours in education are required.
3. Have a grade point average of 3.0 or higher in all graduate level coursework. \*Please

note that one third of the total program hours may be transferred from another accredited doctoral program.

4. Have satisfactory teaching experience, preferably licensed.
5. Obtain three letters of recommendation from individuals who can specifically address the applicant's potential for success in the doctoral program. These letters of recommendation will be requested and submitted through the Graduate College online application system. One of the letters must be from a university faculty member addressing your past academic success and future potential in a doctoral program.
6. Submit one set of official transcripts from all previously attended colleges and universities as requested in the Graduate College online application. You may upload unofficial transcripts via the online application as a supplement if you have the documents in a digital computer file (e.g., PDF). Unofficial transcripts do NOT substitute for the official documents.
7. Submit Graduate Record Examination (GRE) scores for the General Exam. The scores should be sent directly to the Doctoral Studies Office in the Department of Teaching and Learning. Applicants are encouraged to provide self-reported scores for the GRE in the Standardized Tests section of the Graduate College online application.
8. Submit a Personal Statement via the Graduate College online application that addresses in detail:
  1. Reasons for pursuing a doctorate in teacher education
  2. Expectations concerning the doctoral program
  3. Potential areas of study within teacher education
  4. The name of a faculty member in the department with whom you would like to work [optional]
9. Submit a written statement regarding when the residency requirement will be met (see the Doctoral Handbook. This statement should be uploaded via the Graduate College



online application in the Supplementary Information section as an "Other Required Document."

10. Demonstrate oral communication skills through an interview conducted by members of the T & L graduate faculty. Out-of-state applicants must contact the Coordinator of Doctoral Studies directly to make alternate arrangements to the on-campus interview.

Once requirements are met, members of the T & L Graduate Faculty will evaluate all evidence for admission submitted by the applicant and then make their recommendations to the entire T & L faculty. The T & L faculty will make a recommendation to the Graduate College, and the Graduate College will post the decision letter to the student's online application. Only complete applications will be considered.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 63

Course Requirements

### **Required Courses – Credits: 9**

EPY 767 - Human Learning and Cognition  
CIG 762 - Instructional Strategies and Learning to Teach in Higher Education  
CIG 763 - Teaching and Learning to Teach

### **Teaching Course – Credits: 3**

Complete one of the following courses:

CIG 760R - Inquiry into Teacher Education  
CIG 780 - Research on Teaching and Schooling

### **Education Course – Credits: 3**

Complete one of the following courses:

CIG 761 - Theoretical Foundations of Education  
CIG 768 - Advanced Curriculum Studies

### **Research Courses – Credits: 6**

EPY 718 - Qualitative Research Methodologies  
EPY 721 - Descriptive and Inferential Statistics: An Introduction

### **Internship Course – Credits: 9**

Complete 9 credits of internship. This must include a combination of 3 credits of school-based internship and 6 credits of teaching internship.

CIG 791 - Internship in Curriculum and Instruction

### **Additional Research Course – Credits: 3**

Complete one of the following courses:

EPY 716 - Evaluation Research Methods  
EPY 719 - Advanced Qualitative Research  
EPY 722 - Inferential Statistics and Experimental Design  
SOC 705 - Qualitative Methods  
SOC 774 - Seminar in Feminist Theories and Research  
PSY 707 - Research Methods  
PSY 708 - Statistics for Psychologists I  
PSY 709 - Statistics for Psychologists II

### **Technology Course – Credits: 3**

CIT 772 - Technology in Teacher Education

### **Elective Courses – Credits: 9**

Complete three of the following courses:

CIE 685 - Elementary Education Curriculum  
CIG 603 - Urban Education  
CIG 661 - Topics Multicultural Education  
CIG 706 - Mentoring Strategies to Improve Teaching  
CIG 764 - Models of Teaching  
CIG 765 - Instructional Design  
CIG 766 - Evaluation of Teaching  
CIG 769 - Advanced Curriculum Evaluation in Education  
CIG 770 - Current Trends and Issues in Education  
CIG 780 - Research on Teaching and Schooling  
CIG 782 - School Climate  
CIL 772 - Cognitive Foundations of Literacy  
CIS 618 - Instructional Methods Secondary School

CIT 667 - Technology and Educational Change  
EDA 782 - Seminar in Teacher Education

**Research Seminar Course – Credits: 3**

CIG 790 - Doctoral Research Seminar

**Dissertation – Credits: 15**

CIG 799 - Dissertation

**Degree Requirements**

1. Complete a minimum of 63 hours of study beyond the master's degree.
2. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level.
3. For the teaching internship course, three credit hours will involve shadowing a faculty member teaching a university course and the other three credits will include teaching a university course under the supervision and mentoring of a faculty member. Co-enrollment with CIG 762 required.
4. For the school-based internship, students will complete an internship in Millennium Schools, Paradise Professional Development School, or other Professional Practice Schools. Co-enrollment in CIG 763 is required.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Complete the residency requirement for the degree. The residency experience incorporates, to the greatest extent possible, a spirit of full-time attention from students to their studies during the residency period. Selection of the criteria for fulfilling the residency requirement is under the auspices

of the student's committee with oversight of the Doctoral Studies Coordinator and Doctoral Studies Committee. A formal proposal for the residency period is required from the student. The PhD residency experience will incorporate a focus on activities associated with success in academe (e.g., scholarly writing, classroom and online university teaching, research methods and opportunities, and external funding). The residency period will encompass at least two consecutive terms (may include one summer term).

7. Attend the T & L Doctoral Colloquium held periodically throughout the years of study.
8. Pass a written comprehensive examination taken before commencing with the dissertation.

**Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
4. The student must also file a copy of the dissertation with the Teaching and Learning Department.

## Master of Education - Curriculum & Instruction

### Plan Description

The Department holds as its central mission the preparation and development of educators at all levels. The department ensures that its professional education programs are based on essential knowledge, established and current research findings, and sound professional practice.

The program offers a wide variety of sub-plans to accommodate educators of all levels and content areas. The Graduate Licensure Program (GLP) subplans are designed to assist the student in earning a Master's degree while also completing some of the requirements necessary to become licensed teacher. Subplans are also available for students who have been admitted into the Teach For America (TFA) program. Students can also earn a Master's degree in some content areas through a partnership with the Regional Professional Development Program (RPDP).

### Elementary

- Elementary Education
- Elementary Education Endorsement
- Elementary Education GLP
- Elementary Education TFA
- Elementary Mathematics Education (K-8)
- Elementary Science Education (K-8)
- Elementary Social Studies Education (K-8)

### Secondary

- Middle School Mathematics Education RPDP (6-8)
- Middle School Science Education RPDP (6-8)
- Secondary Education
- Secondary Education GLP
- Secondary English Language Arts Education (7-12)
- Secondary English Language Arts Education TFA
- Secondary Mathematics Education (7-12)

- Secondary Mathematics Education RPDP (7-12)
- Secondary Mathematics Education TFA
- Secondary Science Education
- Secondary Science Education RPDP (7-12)
- Secondary Science Education TFA
- Secondary Social Studies Education (7-12)
- Secondary Social Studies Education TFA

### Specialty

- Career & Technical and Postsecondary Education
- Children's and Young Adult Literature (K-12) **\*\*ON HOLD\*\***
- Educational Technology
- Educational Technology RPDP
- Literacy Education (K-12)
- Multicultural Education (PK12, Higher Ed, or Community-Based Ed Focus)
- Reading Specialist (K-12) **\*\*ON HOLD\*\***

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

Learning outcomes for specific subplan tracks can be found below:

- Master of Education - Curriculum & Instruction; Career & Technical
- Master of Education - Curriculum & Instruction; Children's and Young Adult Literature
- Master of Education - Curriculum & Instruction; Elementary Education
- Master of Education - Curriculum & Instruction; Elementary Mathematics
- Master of Education - Curriculum & Instruction; Elementary Science
- Master of Education - Curriculum & Instruction; Elementary Social Studies
- Master of Education - Curriculum & Instruction; English Education
- Master of Education - Curriculum & Instruction; Library Science
- Master of Education - Curriculum & Instruction; Literacy Education

- Master of Education - Curriculum & Instruction; Multicultural Education
- Master of Education - Curriculum & Instruction; Reading Specialist
- Master of Education- Curriculum & Instruction; Secondary Education
- Master of Education - Curriculum & Instruction; Secondary Mathematics
- Master of Education- Curriculum & Instruction; Secondary Science
- Master of Education - Curriculum & Instruction; Secondary Social Studies
- Master of Education- Curriculum & Instruction; Technology Integration
- Master of Education - Curriculum & Instruction; Technology Leadership

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

In addition to meeting the admission requirements of the Graduate College, applicants must also meet the requirements established by the Department of Teaching and Learning. They are:

1. An overall undergraduate grade point average (GPA) of 3.00 is required for admission. Students with a GPA of less than 3.00 but greater or equal to 2.75 may be admitted to the graduate program upon review of the Admissions Committee.
2. A completed on-line application for admission submitted to the Graduate College.
3. The online application must include a one-to-two-page statement of professional goals. The names with contact information of two professional references and intended emphasis area should be included in the statement.
4. Two sets of official transcripts from all previously attended colleges and universities. One set of transcripts must be sent directly to the Graduate College; the other set must be sent directly to the T&L main office.

5. For Graduate Licensure Program (GLP), must submit Praxis Core passing scores and the supplemental application directly to the T&L Department (see [tl.unlv.edu/glp](http://tl.unlv.edu/glp) for details).

Applications are processed when all credentials required by both the Graduate College and T&L have been received. Once received, materials are forwarded to the Graduate Coordinator and the T&L Master's Admission Committee to evaluate the applicant's credentials and recommend acceptance or denial into the program. Those who wish to begin studies but who missed the application deadline may enroll as a non-degree seeking graduate student. However, since there is no guarantee that courses taken as a non-degree student will count toward a degree, and since a maximum of 15 hours taken prior to admission to the program may be used to meet degree requirements, candidates are urged to seek advisement prior to registering for any course(s). Please see <http://tl.unlv.edu/admissions> for more information. Students may also email [tlgrad@unlv.edu](mailto:tlgrad@unlv.edu) or call (702) 895-1986 for assistance.

The Graduate College will send official notification regarding the status of applications through the Apply Yourself (AY) portal. In addition, an email will be sent from the department of Teaching and Learning identifying an academic advisor. Students are responsible for contacting their advisors upon admission to the program. Students are required to complete their program of study using Advise, T&L's online system for submitting a program of study. Advise can be accessed at: <http://advise.unlvcoe.net/>.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

**Subplan 1 Requirements: Elementary Education Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

- CIG 690 - Teachers as Action Researchers
- EPY 702 - Research Methods
- EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

- CIG 603 - Urban Education
- CIG 660 - Multicultural Education
- EPY 707 - Adolescent Development
- EPY 711 - Human Growth and Development
- EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course – Credits: 3**

- CIE 685 - Elementary Education Curriculum

**Pedagogy Course – Credits: 3**

- CIE 683 - Elementary Classroom Management

**Instruction Course – Credits: 3**

Complete one of the following courses:

- CIE 681 - Elementary School Instruction
- CIG 602 - Differentiated Curriculum and Instruction

**Curricular Courses – Credits: 18**

Complete 9 credits from each of two curricular areas below:

*Mathematics Education*

Complete one of the following courses:

- CIE 623 - Instruction Primary Elementary Mathematics Education
- CIE 625 - Instruction Intermediate Elementary

Mathematics Education

- CIS 622 - Instructional Middle School Mathematics Education

Complete two of the following courses (excluding the course taken above):

- CIE 620 - Topics Elementary School Mathematics
- CIE 623 - Instruction Primary Elementary Mathematics Education
- CIE 625 - Instruction Intermediate Elementary Mathematics Education
- CIE 627 - Technology Applications K-8 Mathematics Education
- CIE 629 - Curriculum Development in Elementary School Mathematics
- CIG 620 - Principles of Learning Mathematics
- CIS 622 - Instructional Middle School Mathematics Education

*Science Education*

Complete the following course:

- CIE 635 - Instruction Elementary Science Education
- Complete two of the following courses:
- CIE 630 - Topics Elementary School Science
  - CIE 637 - Technology Applications K-8 Science Education
  - CIE 639 - Curriculum Development Elementary Science Education

*Social Studies Education*

- CIE 640 - Topics Elementary School Social Studies
- CIE 645 - Instruction Elementary Social Studies Education
- CIE 649 - Curriculum Development Elementary Social Studies Education

*Literacy Education*

Complete three of the following courses:

- CIL 601 - Foundations of Literacy Learning
- CIL 604 - Literacy Instruction for Young Children
- CIL 607 - Comprehensive Reading Instruction
- CIL 610 - Content Area Literacy
- CIL 616 - Teaching Writing
- CIL 621 - Assessment in Literacy

CIL 680 - Contemporary Literature Children and Young Adults

#### *Multicultural Education*

Complete three of the following courses:

CIG 660 - Multicultural Education  
CIG 662 - Theory and Research Multicultural Education  
CIG 661 - Topics Multicultural Education  
CIL 693 - Literacy for a Diverse Society  
CIL 684 - Multicultural Literature

#### *Educational Technology*

Complete three of the following courses:

CIT 601 - Technology Applications Elementary Curriculum  
CIT 608 - Integrating Technology in Teaching and Learning  
CIT 609 - Internet for Learning  
CIT 611 - Digital Publishing for Educators  
CIT 649 - Instructional Methods Computer Applications

#### *Teaching English as a Second Language*

Complete three of the following courses:

TESL 750 - TESL Linguistic Theory  
TESL 751 - Theories of Second Language Acquisition  
TESL 752 - TESL Methods and Materials  
TESL 753 - TESL Curriculum  
TESL 754 - TESL Assessment Procedures

#### **Elective Course – Credits: 3**

Complete 3 credits advisor-approved elective courses.

#### **Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

#### *Subplan Notes*

1. CIE 685 must be completed within final 30-36 hours of study and required before enrollment in CIG 697.
2. CIG 660 cannot satisfy requirements in more than one category.

#### Degree Requirements

*See Plan Degree Requirements below.*

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 2 Requirements: Elementary Education Endorsement Track**

Total Credits Required: 37

#### Course Requirements

#### **Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

#### **Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education\*\*  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development\*\*  
EPY 712 - Foundations of Learning and Cognition\*\*

#### **Curriculum and Instruction Course – Credits: 3**

Complete the following course within last 30-36 semester hours of coursework; preferably the semester before CIG 697.

CIE 685 - Elementary Education Curriculum

#### **Pedagogy Course – Credits: 3**

CIE 683 - Elementary Classroom Management\*\*

#### **Additional Pedagogy Course – Credits: 3**

Complete one of the following courses:

CIE 681 - Elementary School Instruction  
CIG 602 - Differentiated Curriculum and Instruction

**Literacy Courses – Credits: 6**

CIL 621 - Assessment in Literacy\*  
CIL 680 - Contemporary Literature Children and Young Adults\*

**Additional Literacy Course – Credits: 3**

Complete one of the following courses:

CIL 604 - Literacy Instruction for Young Children\*  
CIL 607 - Comprehensive Reading Instruction\*

**Methods Courses – Credits: 6**

CIE 635 - Instruction Elementary Science Education\*  
CIE 645 - Instruction Elementary Social Studies Education\*

**Additional Methods Course – Credits: 3**

Complete one of the following courses:

CIE 623 - Instruction Primary Elementary Mathematics Education\*  
CIE 625 - Instruction Intermediate Elementary Mathematics Education\*

**Professional Education Course – Credits: 3**

Complete one of the following courses, or another advisor-approved course given the Professional Education licensure requirements are satisfied.

CIT 601 - Technology Applications Elementary Curriculum\*\*  
ESP 701 - Introduction to Special Education and Legal Issues\*\*  
TESL 752 - TESL Methods and Materials\*\*

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

(Prerequisite: CIE 685 the semester prior to enrollment)

*Subplan Notes*

1. Student must hold a secondary or special (art, music, health, physical education, special education, etc.) license, plus three years of successful teaching experience in the initial licensed area to obtain a regular Elementary Education endorsement added to a license. If the license is 7-12 secondary or the specialty teaching experience is in a K-8 setting, then student teaching may be waived given Nevada Department of Education approval.
2. \*Methods courses (9 semester hours of literacy and 9 semester hours of mathematics, science and social studies) required for the regular Elementary Education license. Depending on student's academic background, 500-level courses may be substituted for 600-level methods courses given instructor, advisor and/or Graduate Coordinator approval.
3. \*\*Meets the six semester hours of Professional Education coursework required for the regular Elementary Education license. Although selected courses are required for the master's degree program, previous courses taken in two of the following areas are acceptable for the Nevada Department of Education regular Elementary Education license.
  - a. Classroom management;
  - b. English as a second language;
  - c. Technology;
  - d. Evaluation of pupils;
  - e. Child development;
  - f. Special education; or
  - g. Social and cultural issues.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 3 Requirements: Elementary Education GLP Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

CIG 660 - Multicultural Education

**Curriculum & Instruction Course – Credits: 3**

CIE 685 - Elementary Education Curriculum

**Pedagogy Courses – Credits: 15**

CIE 601 - Elementary Teacher Development Seminar  
CIT 601 - Technology Applications Elementary Curriculum  
EPY 709 - Classroom Assessment  
ESP 701 - Introduction to Special Education and Legal Issues  
TESL 752 - TESL Methods and Materials

**Elementary Methods Courses – Credits: 12**

Complete four of the following courses:

CIE 533 - Teaching Elementary School Mathematics  
CIE 543 - Teaching Elementary School Science  
CIE 553 - Teaching Elementary School Social Studies  
CIE 508 - Classroom Management Elementary Education  
CIL 501 - Children's Literature Elementary School Curriculum  
CIL 542 - Literacy Instruction I  
CIL 543 - Literacy Instruction II: Clinic-based  
ESP 730 - Parent Involvement in Special and General Education

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

1. CIS 684 must be completed within final 30-36 hours of study and before enrollment in CIG 697.
2. These courses are only for the M.Ed portion of the Graduate Licensure program. Additional requirements exist that do not count towards the master's degree. Students should reference the Graduate Licensure page for complete details and information about the required sequence in which these courses must be taken.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 4 Requirements: Elementary Education TFA Track**

Total Credits Required: 37

Course Requirements

**Required Courses – Credits: 36**

Complete these courses:

CIE 533 - Teaching Elementary School Mathematics  
CIE 543 - Teaching Elementary School Science  
CIE 553 - Teaching Elementary School Social Studies  
CIE 681 - Elementary School Instruction  
CIG 660 - Multicultural Education (formerly CIG 750)  
CIL 542 - Literacy Instruction I  
CIL 621 - Assessment in Literacy  
CIL 680 - Contemporary Literature Children and Young Adults  
CIE 685 - Elementary Education Curriculum  
EPY 702 - Research Methods  
ESP 701 - Introduction to Special Education and Legal Issues  
TESL 752 - TESL Methods and Materials

**Culminating Experience – Credits: 1**



CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

CIS 684 must be completed within final 30-36 hours of study and before enrollment in CIG 697.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 5 Requirements: Elementary Mathematics Education (K-8) Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

- CIG 690 - Teachers as Action Researchers
- EPY 702 - Research Methods
- EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

- CIG 603 - Urban Education
- CIG 660 - Multicultural Education
- EPY 707 - Adolescent Development
- EPY 711 - Human Growth and Development
- EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

- CIE 681 - Elementary School Instruction
- CIE 683 - Elementary Classroom Management
- CIE 685 - Elementary Education Curriculum
- CIG 602 - Differentiated Curriculum and Instruction

**Methods Courses – Credits: 6**

Complete two of the following courses:

- CIE 623 - Instruction Primary Elementary Mathematics Education
- CIE 625 - Instruction Intermediate Elementary Mathematics Education
- CIS 622 - Instructional Middle School Mathematics Education

**Core Courses – Credits: 9**

- CIE 620 - Topics Elementary School Mathematics
- CIE 627 - Technology Applications K-8 Mathematics Education
- CIG 620 - Principles of Learning Mathematics

**Education Course – Credits: 3**

Complete one of the following courses:

- CIE 629 - Curriculum Development in Elementary School Mathematics
- CIG 621 - Diagnostic Assessment School Mathematics

**Cognate Courses – Credits: 6**

Complete 6 credits of advisor approved cognate coursework.

Possible cognates include, but are not limited to, educational technology and teaching English as a second language.

**Seminar Course – Credits: 3**

- CIG 689 - Curriculum and Instruction Seminar

**Culminating Experience – Credits: 1**

- CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

CIG 689 must be taken prior to enrollment in CIG 697.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 6 Requirements: Elementary Science Education (K-8) Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course –Credits: 3**

Complete one of the following courses:

CIE 681 - Elementary School Instruction  
CIE 683 - Elementary Classroom Management  
CIE 685 - Elementary Education Curriculum  
CIG 602 - Differentiated Curriculum and Instruction

**Core Courses – Credits: 12**

CIE 630 - Topics Elementary School Science  
CIE 635 - Instruction Elementary Science Education  
CIE 637 - Technology Applications K-8 Science Education  
CIE 639 - Curriculum Development Elementary Science Education

**Elective Courses – Credits: 6**

Complete 6 credits of 600 or 700-level advisor-approved Science courses from the College of Sciences or SCI 630 courses via RPDP.

**Cognate Courses – Credits: 6**

Complete 6 credits of cognate coursework. Possible cognates include, but are not limited to, educational technology and teaching English as a second language.

**Seminar Course – Credits: 3**

CIG 639 - Science Education Seminar

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

CIG 639 must be completed prior to enrollment in CIG 697.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 7 Requirements: Elementary Social Studies Education (K-8) Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development

EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

CIE 681 - Elementary School Instruction  
CIE 683 - Elementary Classroom Management  
CIE 685 - Elementary Education Curriculum  
CIG 602 - Differentiated Curriculum and Instruction

**Core Courses – Credits: 9**

CIE 640 - Topics Elementary School Social Studies  
CIE 645 - Instruction Elementary Social Studies Education  
CIE 649 - Curriculum Development Elementary Social Studies Education

**Integration Course – Credits: 3**

Complete one of the following courses:

CIT 608 - Integrating Technology in Teaching and Learning  
CIT 609 - Internet for Learning

**Elective Courses – Credits: 12**

Complete three 600-level advisor-approved social science courses from Liberal Arts.

**Seminar Course – Credits: 3**

CIG 689 - Curriculum and Instruction Seminar

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

CIG 689 must be completed prior to enrollment in CIG 697.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 8 Requirements: Middle School Mathematics Education RPDP Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

CIE 681 - Elementary School Instruction  
CIE 683 - Elementary Classroom Management  
CIE 685 - Elementary Education Curriculum  
CIG 602 - Differentiated Curriculum and Instruction  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum

**Content Courses – Credits: 15**

Complete 15 credits of SCI 620 courses via RPDP from UNLV's College of Sciences.

**Core Courses – Credits: 9**

CIE 627 - Technology Applications K-8 Mathematics Education  
CIG 620 - Principles of Learning Mathematics  
CIS 622 - Instructional Middle School Mathematics Education

**Elective Course – Credits: 3**

Complete one of the following courses:

CIE 629 - Curriculum Development in Elementary School Mathematics

CIG 629 - Mathematics Education Seminar

CIG 621 - Diagnostic Assessment School Mathematics

CIS 620 - Topics Secondary School Mathematics

CIS 629 - Curriculum Development Secondary Mathematics Education

### **Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

#### *Subplan Notes*

1. CIS 620 is limited to 3 total credit hours.
2. CIS 684 must be completed within final 30-36 hours of study and before enrollment in CIG 697.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 9 Requirements: Middle School Science Education RPDP Track**

Total Credits Required: 37

Course Requirements

#### **Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers

EPY 702 - Research Methods

EPY 703 - Teachers as Producers and Consumers of Educational Research

#### **Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education

CIG 660 - Multicultural Education

EPY 707 - Adolescent Development

EPY 711 - Human Growth and Development

EPY 712 - Foundations of Learning and Cognition

#### **Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

CIG 602 - Differentiated Curriculum and Instruction

CIS 682 - Secondary School Instruction

CIS 684 - Secondary Education Curriculum

#### **Content Courses – Credits: 15**

Complete 15 credits of SCI 630 courses via RPDP with credit through UNLV's College of Sciences.

#### **Core Courses – Credits: 6**

CIE 637 - Technology Applications K-8 Science Education

CIS 632 - Instruction Middle School Science Education

#### **Elective Courses – Credits: 6**

Complete two of the following courses:

CIG 639 - Science Education Seminar

CIS 630 - Topics Secondary School Science

CIS 639 - Curriculum Development Secondary Science Education

#### **Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

#### *Subplan Notes*

1. Admission to UNLV's Graduate College is required PRIOR to the completion of 15 credit hours. Students who have already begun the RPDP Certificate Program are encouraged to apply to UNLV as soon as possible.
2. CIS 684 must be completed within final 30-36 hours of study and before enrollment in CIG 697.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 10 Requirements: Secondary Education Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

CIG 602 - Differentiated Curriculum and Instruction  
CIS 682 - Secondary School Instruction

**Pedagogy Courses – Credits: 6**

CIS 684 - Secondary Education Curriculum  
CIG 603 - Urban Education

**Elective Courses – Credits: 9**

Complete three courses from one of the subject areas below. One of the courses must be a methods\*\* course.

*English Education*

Complete the following course:

CIL 642 - Instruction English Education\*\*

Complete two of the following courses, or any 600- or 700-level course(s) in English:

CIL 610 - Content Area Literacy  
CIL 643 - Curriculum Development English Education  
CIL 616 - Teaching Writing

*Mathematics Education*

Complete one of the following courses:

CIS 622 - Instructional Middle School Mathematics Education\*\*  
CIS 624 - Instruction Secondary Mathematics Education\*\*

Complete two of the following courses (excluding the course taken above), or any 600- or 700-level course(s) in Mathematics:

CIG 621 - Diagnostic Assessment School Mathematics  
CIS 620 - Topics Secondary School Mathematics  
CIS 622 - Instructional Middle School Mathematics Education  
CIS 624 - Instruction Secondary Mathematics Education  
CIS 628 - Technology Application in Secondary Mathematics Education

*Science Education*

Complete one of the following courses:

CIS 632 - Instruction Middle School Science Education\*\*  
CIS 634 - Instruction Secondary Science Education\*\*

Complete two of the following courses (excluding the course taken above), or any 600- or 700-level course(s) in Biology, Chemistry, Geosciences, and/or Physics:

CIS 630 - Topics Secondary School Science  
CIS 632 - Instruction Middle School Science Education  
CIS 634 - Instruction Secondary Science Education  
CIS 639 - Curriculum Development Secondary Science Education

CIS 638 - Technology Applications in Secondary Science Education

*Social Studies*

Complete the following course:

CIS 644 - Instruction Secondary Social Studies Education\*\*

Complete the following courses, or any 600-or 700-level course(s) in Anthropology, Economics, Geography, History, Political Science, Psychology and/or Sociology:

CIS 640 - Topics Secondary Social Studies Education

CIS 649 - Curriculum Development Secondary Social Studies Education

**Cognate Courses – Credits: 9**

Complete 3 advisor-approved courses from one of the cognate areas below. Other cognate areas may be selected with advisor approval.

*Multicultural Education*

CIG 660 - Multicultural Education

CIG 661 - Topics Multicultural Education

CIG 662 - Theory and Research Multicultural Education

CIL 684 - Multicultural Literature

CIL 693 - Literacy for a Diverse Society

*Teaching English as a Second Language*

TESL 750 - TESL Linguistic Theory

TESL 751 - Theories of Second Language Acquisition

TESL 752 - TESL Methods and Materials

TESL 753 - TESL Curriculum

TESL 754 - TESL Assessment Procedures

*Educational Technology*

CIT 602 - Technology Applications Secondary Curriculum

CIT 608 - Integrating Technology in Teaching and Learning

CIT 609 - Internet for Learning

CIT 611 - Digital Publishing for Educators

CIT 649 - Instructional Methods Computer Applications

**Elective Course – Credits: 3**

Complete 3 credits of an advisor-approved elective course.

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

1. CIS 684 must be completed within final 30-36 hours of study and before enrollment in CIG 697.
2. CIG 660 cannot satisfy requirements in more than one category.
3. Each topic course (CIS 620, CIS 630, CIS 640, and CIG 661) is limited to 3 total credit hours.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 11 Requirements: Secondary English Education ARL Program**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers

EPY 702 - Research Methods

**Foundations Course – Credits: 3**

CIG 660 - Multicultural Education

**Curriculum & Instruction Course – Credits: 3**

CIS 684 - Secondary Education Curriculum

**Pedagogy Courses – Credits: 18**

CIS 602 - Secondary School Practicum  
 CIS 603 - Secondary Process and Instruction  
 CIS 604 - Secondary Classroom Management  
 ESP 701 - Introduction to Special Education and Legal Issues  
 ESP 730 - Parent Involvement in Special and General Education  
 TESL 752 - TESL Methods and Materials

**Methods and Assessment – Credits: 6**

CIS 533 - Teaching Secondary English  
 CIL 621 - Assessment in Literacy

**Optional Course – Credits: 3**

Complete one of the following courses:

CIL 616 - Teaching Writing  
 CIT 602 - Technology Applications Secondary Curriculum  
 EPY 707 - Adolescent Development  
 TESL 753 - TESL Curriculum

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

1. CIS 684 must be completed within final 30-36 hours of study and before enrollment in CIG 697.
2. Note: These courses are only for the M.Ed portion of the Graduate Licensure program. Additional requirements exist that do not count towards the masters degree. Students should reference the Graduate Licensure page ([tl.unlv.edu/glp](http://tl.unlv.edu/glp)) for complete details and information about the required sequence in which these courses must be taken.

## Degree Requirements

*See Plan Degree Requirements below.*

## Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 12 Requirements: Secondary Math Education ARL Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
 EPY 702 - Research Methods

**Foundations Course – Credits: 3**

CIG 660 - Multicultural Education

**Curriculum & Instruction Course – Credits: 3**

CIS 684 - Secondary Education Curriculum

**Pedagogy Courses – Credits: 18**

CIS 602 - Secondary School Practicum  
 CIS 603 - Secondary Process and Instruction  
 CIS 604 - Secondary Classroom Management  
 ESP 701 - Introduction to Special Education and Legal Issues  
 ESP 730 - Parent Involvement in Special and General Education  
 TESL 752 - TESL Methods and Materials

**Methods and Assessment – Credits: 6**

CIS 553S - Teaching Secondary Mathematics  
 CIG 621 - Diagnostic Assessment School Mathematics

**Optional Course – Credits: 3**

Complete one of the courses listed:

CIG 620 - Principles of Learning Mathematics  
 CIT 602 - Technology Applications Secondary Curriculum  
 EPY 707 - Adolescent Development  
 TESL 753 - TESL Curriculum

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

1. CIS 684 must be completed within final 30-36 hours of study and before enrollment in CIG 697.
2. Note: These courses are only for the M.Ed portion of the Graduate Licensure program. Additional requirements exist that do not count towards the masters degree. Students should reference the Graduate Licensure page (tl.unlv.edu/glp) for complete details and information about the required sequence in which these courses must be taken.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 13 Requirements: Secondary Science Education ARL Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods

**Foundations Course – Credits: 3**

CIG 660 - Multicultural Education

**Curriculum & Instruction Course – Credits: 3**

CIS 684 - Secondary Education Curriculum

**Pedagogy Courses – Credits: 18**

CIS 602 - Secondary School Practicum  
CIS 603 - Secondary Process and Instruction  
CIS 604 - Secondary Classroom Management  
ESP 701 - Introduction to Special Education and Legal Issues  
ESP 730 - Parent Involvement in Special and General

Education

TESL 752 - TESL Methods and Materials

**Methods and Assessment – Credits: 6**

CIS 563 - Teaching Secondary Science  
EPY 709 - Classroom Assessment

**Optional Course – Credits: 3**

Complete one of the following courses:

CIS 638 - Technology Applications in Secondary Science Education  
CIT 602 - Technology Applications Secondary Curriculum  
EPY 707 - Adolescent Development  
TESL 753 - TESL Curriculum

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

1. CIS 684 must be completed within final 30-36 hours of study and before enrollment in CIG 697.
2. Note: These courses are only for the M.Ed portion of the Graduate Licensure program. Additional requirements exist that do not count towards the masters degree. Students should reference the Graduate Licensure page (tl.unlv.edu/glp) for complete details and information about the required sequence in which these courses must be taken.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 14 Requirements: Secondary Social Studies Education ARL Track**

Total Credits Required: 37

Course Requirements



**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
 EPY 702 - Research Methods

**Foundations Course – Credits: 3**

CIG 660 - Multicultural Education

**Curriculum & Instruction Course – Credits: 3**

CIS 684 - Secondary Education Curriculum

**Pedagogy Courses – Credits: 18**

CIS 602 - Secondary School Practicum  
 CIS 603 - Secondary Process and Instruction  
 CIS 604 - Secondary Classroom Management  
 ESP 701 - Introduction to Special Education and Legal Issues  
 ESP 730 - Parent Involvement in Special and General Education  
 TESL 752 - TESL Methods and Materials

**Methods and Assessment – Credits: 6**

CIS 573 - Teaching Secondary Social Studies  
 EPY 709 - Classroom Assessment

**Optional Course – Credits: 3**

Complete one of the following courses:

CIS 649 - Curriculum Development Secondary Social Studies Education  
 CIT 602 - Technology Applications Secondary Curriculum  
 EPY 707 - Adolescent Development  
 TESL 753 - TESL Curriculum

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

1. CIS 684 must be completed within final 30-36 hours of study and before enrollment in CIG 697.

2. Note: These courses are only for the M.Ed portion of the Graduate Licensure program. Additional requirements exist that do not count towards the masters degree. Students should reference the Graduate Licensure page ([tl.unlv.edu/glp](http://tl.unlv.edu/glp)) for complete details and information about the required sequence in which these courses must be taken.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 15 Requirements: Secondary English Language Arts Education (7-12) Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
 EPY 702 - Research Methods  
 EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
 CIG 660 - Multicultural Education  
 EPY 707 - Adolescent Development  
 EPY 711 - Human Growth and Development  
 EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

CIG 602 - Differentiated Curriculum and Instruction  
 CIS 682 - Secondary School Instruction  
 CIS 684 - Secondary Education Curriculum

**Core Courses – Credits: 12**

CIL 610 - Content Area Literacy  
CIL 642 - Instruction English Education  
CIL 643 - Curriculum Development English Education  
CIL 616 - Teaching Writing

**Literacy Topics Course – Credits: 3**

Complete one of the following courses:

CIL 600 - Topics Literacy Education  
CIL 680 - Contemporary Literature Children and Young Adults

**Cognate Courses – Credits: 6**

Complete two courses from one of the following areas of emphasis:

*English*

Advisor-approved 600-level courses in the Department of English.

*Literacy*

CIL 601 - Foundations of Literacy Learning  
CIL 621 - Assessment in Literacy  
CIL 693 - Literacy for a Diverse Society  
Other CIL literacy courses selected with advisor approval

*TESL*

TESL 750 - TESL Linguistic Theory  
TESL 751 - Theories of Second Language Acquisition  
TESL 752 - TESL Methods and Materials  
TESL 753 - TESL Curriculum  
TESL 754 - TESL Assessment Procedures

**Elective Course – Credits: 3**

Complete 3 credits of an advisor-approved elective course.

**Seminar Course – Credits: 3**

CIL 699 - Literacy Research Seminar

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 16 Requirements: Secondary English Language Arts Education TFA Track**

Total Credits Required: 37

Course Requirements

**Required Courses – Credits: 36**

Complete these courses:

CIG 660 - Multicultural Education  
CIL 610 - Content Area Literacy  
CIL 616 - Teaching Writing  
CIL 642 - Instruction English Education  
CIL 643 - Curriculum Development English Education  
CIS 684 - Secondary Education Curriculum  
CIS 682 - Secondary School Instruction  
EPY 702 - Research Methods  
ESP 701 - Introduction to Special Education and Legal Issues  
TESL 751 - Theories of Second Language Acquisition  
TESL 752 - TESL Methods and Materials  
TESL 753 - TESL Curriculum

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

CIS 684 must be completed within final 30-36 hours of study and before enrollment in CIG 697.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 17 Requirements: Secondary Mathematics Education (7-12) Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

CIG 602 - Differentiated Curriculum and Instruction  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum

**Methods Course – Credits: 3**

Complete one of the following courses:

CIS 622 - Instructional Middle School Mathematics Education  
CIS 624 - Instruction Secondary Mathematics Education

**Mathematics Education Courses – Credits: 6**

CIG 620 - Principles of Learning Mathematics  
CIS 628 - Technology Application in Secondary Mathematics Education

**Mathematics Elective Course – Credits: 3**

Complete one of the following courses:

CIG 621 - Diagnostic Assessment School Mathematics  
CIS 686 - Curriculum Development Secondary Education

**Mathematics Content Courses – Credits: 9**

Complete three of the following courses, or other 600-700 level MAT courses:

CIS 620 - Topics Secondary School Mathematics  
MAT 711 - Survey of Mathematical Problems I  
MAT 712 - Survey of Mathematical Problems II  
MAT 714 - History of Mathematics  
SCI 620 - Middle School Mathematics Content:  
SCI 640 - High School Mathematics Content:

**Elective Course – Credits: 3**

Complete 3 credits of an advisor-approved elective course.

**Seminar Course – Credits: 3**

CIG 689 - Curriculum and Instruction Seminar

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

CIG 689 must be completed before enrollment in CIG 697.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 18 Requirements: Secondary Mathematics Education RPDP (7-12) Track**

Total Credits Required: 37

## Course Requirements

### **Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

### **Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

### **Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

CIG 602 - Differentiated Curriculum and Instruction  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum

### **Content Courses – Credits: 15**

Complete 15 credits of SCI 640 courses via RPD from UNLV's College of Sciences.

### **Instruction Course – Credits: 3**

Complete one of the following courses:

CIS 622 - Instructional Middle School Mathematics Education  
CIS 624 - Instruction Secondary Mathematics Education

### **Education Courses – Credits: 6**

CIG 620 - Principles of Learning Mathematics  
CIS 628 - Technology Application in Secondary Mathematics Education

### **Elective Course – Credits: 3**

Complete one of the following courses:

CIG 629 - Mathematics Education Seminar  
CIG 621 - Diagnostic Assessment School Mathematics  
CIS 620 - Topics Secondary School Mathematics  
CIS 629 - Curriculum Development Secondary Mathematics Education

### **Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

#### *Subplan Notes*

1. CIS 620 is limited to 3 total credit hours.
2. CIS 624 and CIS 628 require secondary mathematics content background.
3. Students must successfully complete a culminating experience. CIG 697 involves the development of an e-portfolio. It is recommended that you keep copies of your work from all classes in your program in preparation for this course.

#### Degree Requirements

*See Plan Degree Requirements below.*

#### Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 19 Requirements: Secondary Mathematics Education TFA Track**

Total Credits Required: 37

#### Course Requirements

### **Required Courses – Credits: 36**

Complete these courses:

CIG 620 - Principles of Learning Mathematics  
CIG 660 - Multicultural Education  
CIL 610 - Content Area Literacy  
CIS 624 - Instruction Secondary Mathematics Education  
CIS 628 - Technology Application in Secondary Mathematics Education  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum

EPY 702 - Research Methods  
ESP 701 - Introduction to Special Education and  
Legal Issues  
TESL 751 - Theories of Second Language  
Acquisition  
TESL 752 - TESL Methods and Materials  
TESL 753 - TESL Curriculum

### **Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating  
Experience

#### *Subplan Notes*

CIS 684 must be completed within final 30-36 hours  
of study and before enrollment in CIG 697.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 20 Requirements: Secondary Science Education Track**

Total Credits Required: 37

Course Requirements

### **Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of  
Educational Research

### **Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

### **Curriculum and Instruction Course –Credits: 3**

Complete one of the following courses:

CIG 602 - Differentiated Curriculum and Instruction  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum

### **Core Courses – Credits: 12**

CIS 630 - Topics Secondary School Science  
CIS 634 - Instruction Secondary Science Education  
CIS 638 - Technology Applications in Secondary  
Science Education  
CIS 639 - Curriculum Development Secondary  
Science Education

### **Elective Courses – Credits: 6**

Complete 6 credits of 600- or 700-level advisor-  
approved courses from the College of Sciences or  
SCI 650 courses via RPDP.

### **Cognate Courses – Credits: 6**

Complete 6 credits of advisor-approved cognate  
coursework.

### **Seminar Course – Credits: 3**

CIG 639 - Science Education Seminar

### **Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating  
Experience

#### *Subplan Notes*

CIG 639 must be completed prior to enrollment in  
CIG 697.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 21 Requirements: Secondary Science Education RPDP Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

CIG 602 - Differentiated Curriculum and Instruction  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum

**Content Courses – Credits: 15**

Complete 15 credits of SCI 650 courses via RPDP through UNLV's College of Sciences.

**Core Courses – Credits: 6**

CIS 634 - Instruction Secondary Science Education  
CIS 638 - Technology Applications in Secondary Science Education

**Elective Courses – Credits: 6**

Complete two of the following courses:

CIG 639 - Science Education Seminar  
CIS 630 - Topics Secondary School Science  
CIS 639 - Curriculum Development Secondary Science Education

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

Admission to UNLV's Graduate College is required PRIOR to the completion of 15 credit hours. Students who have already begun the RPDP Certificate Program are encouraged to apply to UNLV as soon as possible.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 22 Requirements: Secondary Science Education TFA Track**

Total Credits Required: 37

Course Requirements

**Required Courses – Credits: 36**

Complete these courses:

EPY 702 - Research Methods  
CIG 660 - Multicultural Education (formerly CIG 750)  
CIL 610 - Content Area Literacy  
CIS 634 - Instruction Secondary Science Education  
CIS 638 - Technology Applications in Secondary Science Education  
CIS 639 - Curriculum Development Secondary Science Education  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum (formerly CIS 705)  
ESP 701 - Introduction to Special Education and Legal Issues  
TESL 751 - Theories of Second Language Acquisition  
TESL 752 - TESL Methods and Materials  
TESL 753 - TESL Curriculum

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

CIS 684 must be completed within final 30-36 hours of study and before enrollment in CIG 697.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 23 Requirements: Secondary Social Studies Education (7-12) Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

- CIG 690 - Teachers as Action Researchers
- EPY 702 - Research Methods
- EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

- CIG 603 - Urban Education
- CIG 660 - Multicultural Education
- EPY 707 - Adolescent Development
- EPY 711 - Human Growth and Development
- EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course –Credits: 3**

Complete one of the following courses:

- CIG 602 - Differentiated Curriculum and Instruction
- CIS 682 - Secondary School Instruction
- CIS 684 - Secondary Education Curriculum

**Core Courses – Credits: 12**

CIS 640 - Topics Secondary Social Studies Education

CIS 644 - Instruction Secondary Social Studies Education

CIS 649 - Curriculum Development Secondary Social Studies Education

**Content Course – Credits: 3**

Complete one of the following courses:

- CIT 609 - Internet for Learning
- CIT 608 - Integrating Technology in Teaching and Learning

**Elective Courses – Credits: 9**

Complete 9 credits of 600-level social science courses from Liberal Arts.

**Seminar Course – Credits: 3**

CIG 649 - Social Studies Education Seminar

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

*Subplan Notes*

1. CIS 640 is limited to 3 total credit hours.
2. CIS 649 must be completed prior to CIG 697.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 24 Requirements: Secondary Social Studies Education TFA Track**

Total Credits Required: 37

Course Requirements

**Required Courses – Credits: 36**

Complete these courses:

- CIG 660 - Multicultural Education
- CIL 610 - Content Area Literacy

CIS 640 - Topics Secondary Social Studies Education  
CIS 649 - Curriculum Development Secondary Social Studies Education  
CIS 644 - Instruction Secondary Social Studies Education  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum  
EPY 702 - Research Methods  
ESP 701 - Introduction to Special Education and Legal Issues  
TESL 751 - Theories of Second Language Acquisition  
TESL 752 - TESL Methods and Materials  
TESL 753 - TESL Curriculum  
TESL 754 - TESL Assessment Procedures

### **Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

#### *Subplan Notes*

CIS 684 must be completed within final 30-36 hours of study and before enrollment in CIG 697.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 25 Requirements: Career & Technical and Postsecondary Education Track**

Total Credits Required: 37

Course Requirements

### **Research Course – Credits: 3**

Complete one of the following courses:

EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

### **Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

### **Curriculum & Instruction Course – Credits: 3**

Complete one of the following courses:

CIG 602 - Differentiated Curriculum and Instruction  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum

### **Concentration Courses – Credits: 15**

EDW 755 - Professional Seminar in Workforce Education  
EDW 539 - Methods of Teaching in Workforce Education  
EDW 575 - Performance-Based Education  
EDW 733 - Workforce Education Curriculum and Program Development  
EDW 768 - Grantsmanship in Education

### **Core Course – Credits: 3**

Complete one of the following courses:

EDW 571 - Advising Career and Technical Student Organizations (CTSO)  
EDW 745 - Theories of Adult Learning

### **Cognate Courses – Credits: 6**

Complete 6 credits of advisor-approval cognate coursework within a particular area of study.

### **Applied Concepts Course – Credits: 3**

Complete one of the following courses:

EDW 530 - Tools for Success in Secondary Workforce Education  
EDW 748 - Internship in Workforce Education

### **Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience



## Degree Requirements

*See Plan Degree Requirements below.*

## Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 26 Requirements: Children's and Young Adult Literature (K-12) Track \*\*ON HOLD\*\***

Total Credits Required: 37

This subplan is currently on hold and unavailable to new students.

## Course Requirements

### **Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

- CIE 681 - Elementary School Instruction
- CIE 683 - Elementary Classroom Management
- CIE 685 - Elementary Education Curriculum
- CIG 602 - Differentiated Curriculum and Instruction
- CIS 682 - Secondary School Instruction
- CIS 684 - Secondary Education Curriculum

### **Research Course – Credits: 3**

Complete one of the following courses:

- CIG 690 - Teachers as Action Researchers
- EPY 702 - Research Methods
- EPY 703 - Teachers as Producers and Consumers of Educational Research

### **Foundations Course – Credits: 3**

Complete one of the following courses:

- CIG 603 - Urban Education
- CIG 660 - Multicultural Education
- EPY 707 - Adolescent Development
- EPY 711 - Human Growth and Development
- EPY 712 - Foundations of Learning and Cognition

### **Literacy Learning Course – Credits: 3**

CIL 601 - Foundations of Literacy Learning

### **Literacy Topics Course – Credits: 3**

Complete one of the following courses:

- CIL 600 - Topics Literacy Education
- CIL 680 - Contemporary Literature Children and Young Adults

### **Elective Courses – Credits: 12**

Complete four of the following courses, or other advisor-approved CIL 600-level courses:

- CIL 600 - Topics Literacy Education
- CIL 604 - Literacy Instruction for Young Children
- CIL 607 - Comprehensive Reading Instruction
- CIL 680 - Contemporary Literature Children and Young Adults
- CIL 684 - Multicultural Literature
- CIL 687 - Literature-Based Instruction
- CIL 688 - Historical Development of Literature
- CIL 747 - Literary Theories and Children's Literature

### **Cognate Course – Credits: 6**

Complete 6 credits of advisor-approved cognate coursework within a particular area of study.

### **Seminar Course – Credits: 3**

CIL 699 - Literacy Research Seminar

### **Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

### *Subplan Notes*

1. A maximum of 6 semester hours of CIL 602 topics classes accepted toward a degree.
2. CIL 699 must be taken the semester prior to CIG 697.

## Degree Requirements

*See Plan Degree Requirements below.*

## Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 27 Requirements: Education Technology Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

CIE 681 - Elementary School Instruction  
CIE 683 - Elementary Classroom Management  
CIE 685 - Elementary Education Curriculum  
CIG 602 - Differentiated Curriculum and Instruction  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum

**Core Courses – Credits: 18**

CIT 608 - Integrating Technology in Teaching and Learning  
CIT 609 - Internet for Learning  
CIT 643 - Designing Digital Materials for Education  
CIT 648 - Issues and Methods in Online Learning  
CIT 667 - Technology and Educational Change  
CIT 673 - Digital Materials Studio

**Elective Courses – Credits: 9**

Complete 9 credits of electives from the following list, or other advisor-approved content area methods courses:

CIT 600 - Topics in Educational Technology:  
CIT 611 - Digital Publishing for Educators

CIT 647 - Creating Online Learning Environments  
CIT 649 - Instructional Methods Computer Applications  
CIT 651 - Instructional Methods Computer Science  
CIT 653 - Creating Digital Materials for Education  
CIT 676 - Management of Educational Technology Facilities and Resources

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 28 Requirements: Educational Technology RPDP Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

CIE 681 - Elementary School Instruction  
CIE 683 - Elementary Classroom Management  
CIE 685 - Elementary Education Curriculum  
CIG 602 - Differentiated Curriculum and Instruction  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum

**Technology Integration Courses – Credits: 24**

CIT 643 - Designing Digital Materials for Education  
CIT 667 - Technology and Educational Change  
CIT 673 - Digital Materials Studio  
CIT 608 - Integrating Technology in Teaching and Learning  
CIT 609 - Internet for Learning  
CIT 611 - Digital Publishing for Educators  
CIT 622 - Microcomputer Technology for Educators  
CIT 647 - Creating Online Learning Environments

**Electives Course – Credits: 3**

Complete one of the following courses:

CIE 637 - Technology Applications K-8 Science Education  
CIE 627 - Technology Applications K-8 Mathematics Education  
TESL 756 - Technology Assisted English Language Learning  
CIS 628 - Technology Application in Secondary Mathematics Education  
CIS 638 - Technology Applications in Secondary Science Education  
CIT 600 - Topics in Educational Technology:  
CIT 648 - Issues and Methods in Online Learning  
CIT 649 - Instructional Methods Computer Applications  
CIT 651 - Instructional Methods Computer Science  
CIT 653 - Creating Digital Materials for Education

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 29 Requirements: Literacy Education (K-12) Track**

Total Credits Required: 37

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

CIE 681 - Elementary School Instruction  
CIE 683 - Elementary Classroom Management  
CIE 685 - Elementary Education Curriculum  
CIG 602 - Differentiated Curriculum and Instruction  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum

**Learning Course – Credits: 3**

CIL 601 - Foundations of Literacy Learning

**Literacy Course – Credits: 3**

Complete one of the following courses:

CIL 600 - Topics Literacy Education  
CIL 680 - Contemporary Literature Children and Young Adults

**Elective Courses – Credits: 12**

Complete 12 credits from the following list of courses, or other advisor-approved CIL 600-level courses:

CIL 600 - Topics Literacy Education  
CIL 604 - Literacy Instruction for Young Children  
CIL 607 - Comprehensive Reading Instruction  
CIL 610 - Content Area Literacy  
CIL 616 - Teaching Writing  
CIL 617 - Southern Nevada Writing Project:  
Invitational Institute (6 semester hours)  
CIL 621 - Assessment in Literacy  
CIL 622 - Practicum Literacy Diagnosis and  
Instruction  
CIL 691 - Organization and Supervision Literacy  
Programs  
CIL 693 - Literacy for a Diverse Society  
CIL 680 - Contemporary Literature Children and  
Young Adults  
CIL 684 - Multicultural Literature  
CIL 687 - Literature-Based Instruction  
CIL 688 - Historical Development of Literature  
CIL 747 - Literary Theories and Children's  
Literature

#### **Cognate Courses – Credits: 6**

Complete 6 credits of advisor-approved cognate coursework.

#### **Seminar Course – Credits: 3**

CIL 699 - Literacy Research Seminar

#### **Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

#### *Subplan Notes*

1. A maximum of 6 semester hours of CIL 602 topics classes accepted toward a degree.
2. CIL 699 must be taken the semester prior to Culminating Experience.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 30 Requirements: Multicultural Education (PK12, Higher Ed, or Community-Based Ed Focus) Track**

Total Credits Required: 37

Course Requirements

#### **Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

#### **Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

#### **Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

CIE 681 - Elementary School Instruction  
CIE 683 - Elementary Classroom Management  
CIE 685 - Elementary Education Curriculum  
CIG 602 - Differentiated Curriculum and Instruction  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum

#### **Multicultural Core Courses – Credits: 3**

CIG 660 - Multicultural Education

#### **Multicultural Education Courses – Credits: 9**

Complete three of the following courses:

CIG 661 - Topics Multicultural Education  
CIG 662 - Theory and Research Multicultural Education  
CIL 693 - Literacy for a Diverse Society  
CIL 684 - Multicultural Literature

#### **TESL Core Course – Credits: 3**

TESL 751 - Theories of Second Language Acquisition

**TESL Elective Courses – Credits: 6**

Complete two of the following courses:

TESL 750 - TESL Linguistic Theory  
TESL 751 - Theories of Second Language Acquisition  
TESL 752 - TESL Methods and Materials  
TESL 753 - TESL Curriculum  
TESL 754 - TESL Assessment Procedures

**Cognate Courses – Credits: 6**

Complete 6 credits of advisor-approved cognate coursework.

**Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating Experience

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 31 Requirements: Reading Specialist Track \*\*ON HOLD\*\***

Total Credits Required: 37

This subplan is currently on hold and unavailable to new students.

Course Requirements

**Research Course – Credits: 3**

Complete one of the following courses:

CIG 690 - Teachers as Action Researchers  
EPY 702 - Research Methods  
EPY 703 - Teachers as Producers and Consumers of Educational Research

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

**Curriculum and Instruction Course – Credits: 3**

Complete one of the following courses:

CIE 681 - Elementary School Instruction  
CIE 683 - Elementary Classroom Management  
CIE 685 - Elementary Education Curriculum  
CIG 602 - Differentiated Curriculum and Instruction  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum

**Learning Course – Credits: 3**

CIL 601 - Foundations of Literacy Learning

**Additional Foundations Course – Credits: 3**

Complete one of the following courses:

CIL 600 - Topics Literacy Education  
CIL 680 - Contemporary Literature Children and Young Adults

**Reading Specialist Courses – Credits: 12**

CIL 610 - Content Area Literacy  
CIL 621 - Assessment in Literacy  
CIL 622 - Practicum Literacy Diagnosis and Instruction  
CIL 691 - Organization and Supervision Literacy Programs

**Literacy Programs Course – Credits: 3**

Complete one of the following courses:

CIL 604 - Literacy Instruction for Young Children  
CIL 607 - Comprehensive Reading Instruction

**Reading Specialist Elective Course – Credits: 3**

Complete one of the following courses, or other advisor-approved CIL 600-level courses:

CIL 616 - Teaching Writing  
CIL 617 - Southern Nevada Writing Project:  
Invitational Institute (6 semester hours)  
TESL 750 - TESL Linguistic Theory  
CIL 684 - Multicultural Literature  
CIL 687 - Literature-Based Instruction  
CIL 688 - Historical Development of Literature  
CIL 693 - Literacy for a Diverse Society  
CIL 747 - Literary Theories and Children's  
Literature  
TESL 751 - Theories of Second Language  
Acquisition

### **Seminar Course – Credits: 3**

CIL 699 - Literacy Research Seminar

### **Culminating Experience – Credits: 1**

CIG 697 - Curriculum and Instruction Culminating  
Experience

#### *Subplan Notes*

CIL 699 must be taken the semester prior to  
Culminating Experience.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Degree Requirements**

1. Students must complete a minimum of 37 credit hours with a minimum GPA of 3.00.
2. All graduate students are held responsible for the requirements and academic policies established by the Graduate College and outlined in the front of this catalog.
3. Students must successfully complete a culminating experience, CIG 697 under the direction of an advisor.
  - a. Registration for the culminating experience, CIG 697, is restricted to students who have 6 credits or less remaining in their program of study.

- b. CIG 697 involves the development of an e-portfolio. It is recommended that you keep copies of your work from all classes in your program in preparation for this course.
4. Per graduate college requirements, students must be enrolled in at least 3 credits in the term they will graduate.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete the culminating experience.

## Master of Science - Curriculum & Instruction

### Plan Description

The Department holds as its central mission the preparation and development of educators at all levels. The department ensures that its professional education programs are based on essential knowledge, established and current research findings, and sound professional practice.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

Learning outcomes for specific subplan tracks can be found below:

- Master of Science - Curriculum & Instruction; Career & Technical
- Master of Science - Curriculum & Instruction; Elementary Education
- Master of Science - Curriculum & Instruction; Elementary Mathematics
- Master of Science - Curriculum & Instruction; Elementary Science
- Master of Science - Curriculum & Instruction; Elementary Social Studies
- Master of Science - Curriculum & Instruction; English Education
- Master of Science - Curriculum & Instruction; Library Science
- Master of Science - Curriculum & Instruction; Reading Specialist
- Master of Science - Curriculum & Instruction; Secondary Education
- Master of Science - Curriculum & Instruction; Secondary Mathematics
- Master of Science - Curriculum & Instruction; Secondary Science
- Master of Science - Curriculum & Instruction; Secondary Social Studies
- Master of Science - Curriculum & Instruction; Technology Integration

- Master of Science - Curriculum & Instruction; Technology Leadership

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

In addition to meeting the admission requirements of the Graduate College, applicants must also meet the requirements established by the Department of Teaching and Learning. They are:

1. An overall undergraduate grade point average (GPA) of 3.00 is required for admission. Students with a GPA of less than 3.00 but greater or equal to 2.75 may be admitted to the graduate program upon review of the Admissions Committee.
2. A completed on-line application for admission submitted to the Graduate College.
3. The online application must include a one-to two-page statement of professional goals. The names with contact information of two professional references and intended emphasis area should be included in the statement.
4. Two sets of official transcripts from all previously attended colleges and universities. One set of transcripts must be sent directly to the Graduate College; the other set must be sent directly to the T&L main office.

Applications are processed when all credentials required by both the Graduate College and T&L have been received. Once received, materials are forwarded to the Graduate Coordinator and the T&L Master's Admission Committee to evaluate the applicant's credentials and recommend acceptance or denial into the program. Those who wish to begin studies but who missed the application deadline may enroll as a non-degree seeking graduate student. However, since there is no guarantee that courses taken as a non-degree student will count toward a degree, and since a maximum of 15 hours taken prior to admission to the program may be used to meet degree requirements, candidates are urged to seek advisement prior to registering for any course(s).

Please see <http://tl.unlv.edu/admissions> for more information. Students may also email [tlgrad@unlv.edu](mailto:tlgrad@unlv.edu) or call (702) 895-1986 for assistance.

The Graduate College will send official notification regarding the status of applications through the Apply Yourself (AY) portal. In addition, an email will be sent from the department of Teaching and Learning identifying an academic advisor. Students are responsible for contacting their advisors upon admission to the program. Students are required to complete their program of study using Advise, T&L's online system for submitting a program of study. Advise can be accessed at: <http://advise.unlvcoe.net/>.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Career & Technical and Postsecondary Education Track**

Total Credits Required: 39

Course Requirements

#### **Required Course – Credits: 3**

EPY 702 - Research Methods

#### **Methods Course – Credits: 3**

Complete one of the following courses:

EPY 718 - Qualitative Research Methodologies  
EPY 721 - Descriptive and Inferential Statistics: An Introduction

#### **Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

#### **Instruction Course – Credits: 3**

Complete one of the following courses:

CIG 602 - Differentiated Curriculum and Instruction  
CIS 682 - Secondary School Instruction  
CIS 684 - Secondary Education Curriculum  
EDW 745 - Theories of Adult Learning

#### **Core Courses – Credits: 15**

EDW 755 - Professional Seminar in Workforce Education  
EDW 539 - Methods of Teaching in Workforce Education  
EDW 575 - Performance-Based Education  
EDW 733 - Workforce Education Curriculum and Program Development  
EDW 768 - Grantsmanship in Education

#### **Additional Core Course – Credits: 3**

Complete one of the following courses:

EDW 571 - Advising Career and Technical Student Organizations (CTSO)  
EDW 745 - Theories of Adult Learning

#### **Seminar Course – Credits: 3**

EDW 772 - Seminar in Workforce Education

#### **Thesis – Credits: 6**

CIG 699 - Curriculum and Instruction Thesis

Degree Requirements

1. Students must complete a minimum of 39 credit hours with a minimum GPA of 3.00.
2. EPY 702 must be taken prior to EPY 718 or EPY 721.
3. CIG 649 must be taken prior to CIG 699.



4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Complete and defend a thesis.
  - a. Students must be enrolled in thesis credits the semester of graduation.
  - b. A thesis prospectus must be filed with the C&I Department and the Graduate College the semester prior to registering for thesis hours. The form, "Prospectus Approval Form", must be completed by the student, signed by the student's advisor, and returned to the T&L Department Graduate Studies Office (CEB 368A) three (3) weeks prior to the last day of instruction the semester before enrolling in six (6) semester hours of CIG 699 C&I Thesis. The T&L Graduate Studies Office will obtain signatures from committee members and graduate coordinator before forwarding the form to the Graduate College.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.

#### **Subplan 2 Requirements: English Language Arts Education Track**

Total Credits Required: 39

#### Course Requirements

#### **Required Course – Credits: 3**

EPY 702 - Research Methods

#### **Methods Course – Credits: 3**

Complete one of the following courses:

EPY 718 - Qualitative Research Methodologies  
 EPY 721 - Descriptive and Inferential Statistics: An Introduction

#### **Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
 CIG 660 - Multicultural Education  
 EPY 707 - Adolescent Development  
 EPY 711 - Human Growth and Development  
 EPY 712 - Foundations of Learning and Cognition

#### **Core Courses – Credits: 12**

CIL 610 - Content Area Literacy  
 CIL 642 - Instruction English Education  
 CIL 643 - Curriculum Development English Education  
 CIL 616 - Teaching Writing

#### **Literacy Topics Course – Credits: 3**

Complete one of the following courses:

CIL 600 - Topics Literacy Education  
 CIL 680 - Contemporary Literature Children and Young Adults

#### **Cognate Courses – Credits: 6**

Complete two courses from one of the following areas of emphasis:

#### *English*

Classes must be 600-level, advisor approved courses in the Department of English.

#### *Literacy*

CIL 601 - Foundations of Literacy Learning  
 CIL 621 - Assessment in Literacy  
 CIL 693 - Literacy for a Diverse Society

Other CIL literacy courses selected with advisor approval.

### *TESL*

TESL 750 - TESL Linguistic Theory

TESL 751 - Theories of Second Language Acquisition

TESL 752 - TESL Methods and Materials

TESL 753 - TESL Curriculum

TESL 754 - TESL Assessment Procedures

### **Seminar Course – Credits: 3**

CIL 699 - Literacy Research Seminar

### **Thesis – Credits: 6**

CIG 699 - Curriculum and Instruction Thesis

### Degree Requirements

1. Students must complete a minimum of 39 credit hours with a minimum GPA of 3.00.
2. EPY 702 must be taken prior to EPY 718 or EPY 721.
3. CIG 649 must be taken prior to CIG 699.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Complete and defend a thesis.
  - a. Students must be enrolled in thesis credits the semester of graduation.
  - b. A thesis prospectus must be filed with the C&I Department and the Graduate College the semester prior to registering for thesis hours. The form, "Prospectus Approval Form", must be completed by the student, signed by the student's advisor, and returned to the T&L Department Graduate Studies Office (CEB 368A) three (3) weeks prior to the last day of instruction

the semester before enrolling in six (6) semester hours of CIG 699 C&I Thesis. The T&L Graduate Studies Office will obtain signatures from committee members and graduate coordinator before forwarding the form to the Graduate College.

### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 3 Requirements: Elementary Mathematics Education Track**

Total Credits Required: 39

### Course Requirements

#### **Required Course – Credits: 3**

EPY 702 - Research Methods

#### **Methods Course – Credits: 3**

Complete one of the following courses:

EPY 718 - Qualitative Research Methodologies

EPY 721 - Descriptive and Inferential Statistics: An Introduction

#### **Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education

CIG 660 - Multicultural Education

EPY 707 - Adolescent Development

EPY 711 - Human Growth and Development

EPY 712 - Foundations of Learning and Cognition

**Methods Courses – Credits: 6**

Complete two of the following courses:

CIE 623 - Instruction Primary Elementary Mathematics Education  
 CIE 625 - Instruction Intermediate Elementary Mathematics Education  
 CIS 622 - Instructional Middle School Mathematics Education

**Core Courses – Credits: 9**

CIE 620 - Topics Elementary School Mathematics  
 CIE 627 - Technology Applications K-8 Mathematics Education  
 CIG 620 - Principles of Learning Mathematics

**Education Course – Credits: 3**

Complete one of the following courses:

CIE 629 - Curriculum Development in Elementary School Mathematics  
 CIG 621 - Diagnostic Assessment School Mathematics

**Elective Course – Credits: 6**

Complete 6 credits of advisor-approved elective courses.

**Culminating Experience – Credits: 6**

CIG 689 - Curriculum and Instruction Seminar  
 CIG 697 - Curriculum and Instruction Culminating Experience

**Degree Requirements**

1. Students must complete a minimum of 39 credit hours with a minimum GPA of 3.00.
2. EPY 702 must be taken prior to EPY 718 or EPY 721.
3. Complete the culminating experience.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

2. The student must complete the culminating experience.

**Subplan 4 Requirements: Secondary Mathematics Education Track**

Total Credits Required: 39

**Course Requirements****Required Course – Credits: 3**

EPY 702 - Research Methods

**Methods Course – Credits: 3**

Complete one of the following courses:

EPY 718 - Qualitative Research Methodologies  
 EPY 721 - Descriptive and Inferential Statistics: An Introduction

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
 CIG 660 - Multicultural Education  
 EPY 707 - Adolescent Development  
 EPY 711 - Human Growth and Development  
 EPY 712 - Foundations of Learning and Cognition

**Mathematics Education Courses – Credits: 12**

CIS 622 - Instructional Middle School Mathematics Education  
 CIS 624 - Instruction Secondary Mathematics Education  
 CIG 620 - Principles of Learning Mathematics  
 CIS 628 - Technology Application in Secondary Mathematics Education

**Mathematics Elective Course – Credits: 3**

Complete one of the following courses:

CIG 621 - Diagnostic Assessment School Mathematics  
 CIS 686 - Curriculum Development Secondary Education

**Mathematics Content Courses – Credits: 6**

Complete two of the following courses:

CIS 620 - Topics Secondary School Mathematics  
MAT 711 - Survey of Mathematical Problems I  
MAT 712 - Survey of Mathematical Problems II  
MAT 714 - History of Mathematics  
SCI 620 - Middle School Mathematics Content:  
SCI 640 - High School Mathematics Content:

**Seminar Course – Credits: 3**

CIG 689 - Curriculum and Instruction Seminar

**Thesis – Credits: 6**

CIG 699 - Curriculum and Instruction Thesis

**Degree Requirements**

1. Students must complete a minimum of 39 credit hours with a minimum GPA of 3.00.
2. EPY 702 must be taken prior to EPY 718 or EPY 721.
3. CIG 649 must be taken prior to CIG 699.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Complete and defend a thesis.
  - a. Students must be enrolled in thesis credits the semester of graduation.
  - b. A thesis prospectus must be filed with the C&I Department and the Graduate College the semester prior to registering for thesis hours. The form, "Prospectus Approval Form", must be completed by the student, signed by the student's advisor, and returned to the T&L Department Graduate Studies Office (CEB 368A) three (3) weeks prior to the last day of instruction the semester before enrolling in six (6) semester hours of CIG 699 C&I

Thesis. The T&L Graduate Studies Office will obtain signatures from committee members and graduate coordinator before forwarding the form to the Graduate College.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

**Subplan 5 Requirements: Elementary Science Education Track**

Total Credits Required: 39

**Course Requirements**

**Required Course – Credits: 3**

EPY 702 - Research Methods

**Methods Course – Credits: 3**

Complete one of the following courses:

EPY 718 - Qualitative Research Methodologies  
EPY 721 - Descriptive and Inferential Statistics: An Introduction

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

**Core Courses – Credits: 12**

CIE 630 - Topics Elementary School Science  
CIE 635 - Instruction Elementary Science Education  
CIE 637 - Technology Applications K-8 Science Education  
CIE 639 - Curriculum Development Elementary Science Education

**Science Courses – Credits: 6**

Complete 6 credits of 600 or 700-level Science courses from the College of Sciences of SCI 630 courses via RPDP.

**Elective Course – Credits: 3**

Complete 3 credits of electives.

**Seminar Course – Credits: 3**

CIG 639 - Science Education Seminar

**Thesis – Credits: 6**

CIG 699 - Curriculum and Instruction Thesis

**Degree Requirements**

1. Students must complete a minimum of 39 credit hours with a minimum GPA of 3.00.
2. EPY 702 must be taken prior to EPY 718 or EPY 721.
3. CIG 649 must be taken prior to CIG 699.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Complete and defend a thesis.
  - a. Students must be enrolled in thesis credits the semester of graduation.
  - b. A thesis prospectus must be filed with the C&I Department and the Graduate College the semester prior to registering for thesis hours. The form, "Prospectus Approval Form", must be completed by the

student, signed by the student's advisor, and returned to the T&L Department Graduate Studies Office (CEB 368A) three (3) weeks prior to the last day of instruction the semester before enrolling in six (6) semester hours of CIG 699 C&I Thesis. The T&L Graduate Studies Office will obtain signatures from committee members and graduate coordinator before forwarding the form to the Graduate College.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

**Subplan 6 Requirements: Secondary Science Education Track**

Total Credits Required: 39

**Course Requirements**

**Required Course – Credits: 3**

EPY 702 - Research Methods

**Methods Course – Credits: 3**

Complete one of the following courses:

EPY 718 - Qualitative Research Methodologies  
EPY 721 - Descriptive and Inferential Statistics: An Introduction

**Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

**Core Courses – Credits: 12**

CIS 630 - Topics Secondary School Science  
CIS 634 - Instruction Secondary Science Education  
CIS 638 - Technology Applications in Secondary Science Education  
CIS 639 - Curriculum Development Secondary Science Education

**Science Courses – Credits: 6**

Complete 6 credits of 600 or 700-level courses from the College of Sciences or SCI 650 courses via RPDP.

**Elective Course – Credits: 3**

Complete 3 credits of an advisor approved elective.

**Seminar Course – Credits: 3**

CIG 639 - Science Education Seminar

**Thesis – Credits: 6**

CIG 699 - Curriculum and Instruction Thesis

**Degree Requirements**

1. Students must complete a minimum of 39 credit hours with a minimum GPA of 3.00.
2. EPY 702 must be taken prior to EPY 718 or EPY 721.
3. CIG 649 must be taken prior to CIG 699.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Complete and defend a thesis.

- a. Students must be enrolled in thesis credits the semester of graduation.
- b. A thesis prospectus must be filed with the C&I Department and the Graduate College the semester prior to registering for thesis hours. The form, "Prospectus Approval Form", must be completed by the student, signed by the student's advisor, and returned to the T&L Department Graduate Studies Office (CEB 368A) three (3) weeks prior to the last day of instruction the semester before enrolling in six (6) semester hours of CIG 699 C&I Thesis. The T&L Graduate Studies Office will obtain signatures from committee members and graduate coordinator before forwarding the form to the Graduate College.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

**Subplan 7 Requirements: Elementary Social Science Education Track**

Total Credits Required: 39

**Course Requirements**

**Required Course – Credits: 3**

EPY 702 - Research Methods

**Methods Course – Credits: 3**

Complete one of the following courses:

EPY 718 - Qualitative Research Methodologies  
EPY 721 - Descriptive and Inferential Statistics: An Introduction

### **Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education  
CIG 660 - Multicultural Education  
EPY 707 - Adolescent Development  
EPY 711 - Human Growth and Development  
EPY 712 - Foundations of Learning and Cognition

### **Core Courses – Credits: 9**

CIE 640 - Topics Elementary School Social Studies  
CIE 645 - Instruction Elementary Social Studies Education  
CIE 649 - Curriculum Development Elementary Social Studies Education

### **Integration Course – Credits: 3**

Complete one of the following courses:

CIT 609 - Internet for Learning  
CIT 608 - Integrating Technology in Teaching and Learning

### **Elective Courses – Credits: 9**

Complete four 600-level social science courses from History, Sociology or Political Science.

### **Seminar Course – Credits: 3**

CIG 649 - Social Studies Education Seminar

### **Thesis – Credits: 6**

CIG 699 - Curriculum and Instruction Thesis

#### **Degree Requirements**

1. Students must complete a minimum of 39 credit hours with a minimum GPA of 3.00.
2. EPY 702 must be taken prior to EPY 718 or EPY 721.
3. CIG 649 must be taken prior to CIG 699.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In

addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

5. Complete and defend a thesis.
  - a. Students must be enrolled in thesis credits the semester of graduation.
  - b. A thesis prospectus must be filed with the C&I Department and the Graduate College the semester prior to registering for thesis hours. The form, "Prospectus Approval Form", must be completed by the student, signed by the student's advisor, and returned to the T&L Department Graduate Studies Office (CEB 368A) three (3) weeks prior to the last day of instruction the semester before enrolling in six (6) semester hours of CIG 699 C&I Thesis. The T&L Graduate Studies Office will obtain signatures from committee members and graduate coordinator before forwarding the form to the Graduate College.

#### **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 8 Requirements: Secondary Social Studies Education Track**

Total Credits Required: 39

## Course Requirements

### **Required Course – Credits: 3**

EPY 702 - Research Methods

### **Methods Course – Credits: 3**

Complete one of the following courses:

EPY 718 - Qualitative Research Methodologies

EPY 721 - Descriptive and Inferential Statistics: An Introduction

### **Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 603 - Urban Education

CIG 660 - Multicultural Education

EPY 707 - Adolescent Development

EPY 711 - Human Growth and Development

EPY 712 - Foundations of Learning and Cognition

### **Core Courses – Credits: 9**

CIS 640 - Topics Secondary Social Studies Education

CIS 644 - Instruction Secondary Social Studies Education

CIS 649 - Curriculum Development Secondary Social Studies Education

### **Content Course – Credits: 3**

Complete one of the following courses:

CIT 609 - Internet for Learning

CIT 608 - Integrating Technology in Teaching and Learning

### **Elective Courses – Credits: 9**

Complete 9 credit hours of 600 or 700-level social science courses from History, Sociology or Political Science.

### **Seminar Course – Credits: 3**

CIG 649 - Social Studies Education Seminar

### **Thesis – Credits: 6**

CIG 699 - Curriculum and Instruction Thesis

## Degree Requirements

1. Students must complete a minimum of 39 credit hours with a minimum GPA of 3.00.
2. EPY 702 must be taken prior to EPY 718 or EPY 721.
3. CIG 649 must be taken prior to CIG 699.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Complete and defend a thesis.
  - a. Students must be enrolled in thesis credits the semester of graduation.
  - b. A thesis prospectus must be filed with the C&I Department and the Graduate College the semester prior to registering for thesis hours. The form, "Prospectus Approval Form", must be completed by the student, signed by the student's advisor, and returned to the T&L Department Graduate Studies Office (CEB 368A) three (3) weeks prior to the last day of instruction the semester before enrolling in six (6) semester hours of CIG 699 C&I Thesis. The T&L Graduate Studies Office will obtain signatures from committee members and graduate coordinator before forwarding the form to the Graduate College.

## Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.



3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## **Education Specialist - Curriculum & Instruction**

### **Plan Description**

The Ed.S. degree program is designed for individuals who possess the ability and desire to pursue advanced graduate work beyond the master's level.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

In addition to the credentials required by the Graduate College, admission to the Ed.S. program in Curriculum and Instruction also requires the students:

1. Hold a master's degree in education or in a field related to education.
2. Present evidence of a minimum of two years of professional experience appropriate to the selected concentration.
3. Have a minimum GPA of 3.00 in all graduate-level course work.
4. Submit an on-line application to the Graduate College.
5. Submit satisfactory test results from the Graduate Record Exam (GRE General Exam) to the C&I Department.
6. The online application must include a one-to two-page statement of professional goals. The names with contact information of two professional references and intended emphasis area should be included in the statement.
7. Two sets of official transcripts from all previously attended colleges and universities. One set of transcripts must be sent directly to the Graduate College; the other set must be sent directly to the T&L main office.

Applicants will be evaluated on scholastic record, professional accomplishments, and potential for

advanced studies. Applicants may be asked to meet with a Graduate Admissions Committee for a formal interview.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 33

Course Requirements

#### **Research Required Courses – Credits: 6**

Complete two of the following courses:

CIG 790 - Doctoral Research Seminar

EPY 718 - Qualitative Research Methodologies

EPY 721 - Descriptive and Inferential Statistics: An Introduction

#### **Area of Emphasis Courses – Credits: 15**

Complete 15 credits of advisor-approved emphasis-area courses within and/or outside the department. Students may fulfill these credits via directed study.

#### **Cognate Courses – Credits: 9**

Complete 9 credits of advisor-approved courses in an area of study which enhances the major area of emphasis. Cognate courses may be taken in the Department of Teaching and Learning or other departments at UNLV.

#### **Culminating Experience – Credits: 3**

CIG 698 - Curriculum and Instruction Professional Paper/Project

Degree Requirements

1. Students must complete a minimum of 33 credit hours with a minimum GPA of 3.00.

2. Students must complete a written comprehensive examination and/or oral presentation of a special project or professional paper.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete a culminating experience.

## Teaching and Learning Courses

CIE 508 - Classroom Management Elementary Education

Credits 3

Graduate credit may be obtained for courses designated 500 or above. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Formerly** CIE 659

**Same as** EDEL 408

**Notes** Credit at the 500 level normally requires additional work.

**Prerequisites** CIE 601 and EDEL 311

CIE 533 - Teaching Elementary School Mathematics

Credits 3

Current methods and materials for teaching elementary school mathematics including review of content, objectives, curriculum, and assessment for developmentally appropriate instructional practices.

**Formerly** CIE 652

**Notes** This course is crosslisted with EDEL 433.

Credit at the 500 level requires additional work.

**Prerequisites** PPST, MATH 122 and MATH 123 or EDEL 431 or consent of instructor.

**Corequisite** Enrollment in a practicum.

CIE 543 - Teaching Elementary School Science

Credits 3

Current methods and materials for teaching life, physical, and earth sciences using process skills, guided discovery activities, and curriculum integration techniques.

**Formerly** CIE 655

**Notes** This course is crosslisted with EDEL 443.

Credit at the 500-level requires additional work.

**Prerequisites** PPST, BIOL 100, GEOG 101 and 103, CHEM 105 and 106 or 110 or PHYS 108 and 108L.

**Corequisite** Enrollment in a practicum.

CIE 553 - Teaching Elementary School Social

Studies

Credits 3

Current methods and materials for teaching social studies.

**Formerly** CIE 658

**Notes** This course is crosslisted with EDEL 453.

Credit at the 500-level requires additional work.

**Prerequisites** PPST, nine hours of social science.

**Corequisite** Enrollment in a practicum.

CIE 601 - Elementary Teacher Development Seminar

Credits 3

Designed for students entering the Elementary Graduate Licensure program. Examines contemporary trends for developing classroom expertise with observations in an elementary classroom. Focus on theory and practice in fostering personal and professional development for pre-service teachers.

**Formerly** CIE 701

**Same as** CIS 601

**Prerequisites** Graduate standing.

**Corequisite** Admission Graduate Licensure Program.

CIE 620 - Topics Elementary School Mathematics

Credits 1 – 3

Examines specific topics and issues in elementary school mathematics.

**Formerly** CIE 720

**Same as** CIS 620

**Notes** Maximum of six credits accepted toward degree.

**Prerequisites** EDEL 433 or CIE 533 and current teaching certificate.

CIE 623 - Instruction Primary Elementary Mathematics Education

Credits 3

Study of research-based practices and methods in primary elementary school mathematics education.

**Formerly** CIE 723

**Prerequisites** EDEL 433 or CIE 533 or ECE 454 and current teaching certificate.

CIE 625 - Instruction Intermediate Elementary Mathematics Education

Credits 3

Study of research-based practices and methods in intermediate elementary school mathematics education.

**Formerly** CIE 725

**Prerequisites** EDEL 433 or CIE 533 and current teaching certificate.

CIE 627 - Technology Applications K-8 Mathematics Education

Credits 3

Research-based study of the integration of technology into the teaching of mathematics in grades K-8.

**Formerly** CIE 727

**Prerequisites** One 600-level mathematics instruction course or consent of instructor.

CIE 629 - Curriculum Development in Elementary School Mathematics

Credits 3

Emphasizes research and curriculum studies dealing with content and procedures of elementary school mathematics programs.

**Formerly** CIE 729

**Same as** CIS 629

**Prerequisites** One 600-level mathematics instruction course or consent of instructor.

CIE 630 - Topics Elementary School Science

Credits 1 – 3

Examines specific topics and issues in elementary school science.

**Formerly** CIE 730

**Same as** CIS 630

**Prerequisites** EDEL 443 or CIE 543 and current teaching certificate.

CIE 635 - Instruction Elementary Science Education

Credits 3

Study of research-based practices and methods in elementary school science education.

**Formerly** CIE 735

**Prerequisites** EDEL 443 or CIE 543 and current teaching certificate.

CIE 637 - Technology Applications K-8 Science Education

Credits 3

Research-based study of the integration of technology into the teaching of science in grades K-8.

**Formerly** CIE 737

**Prerequisites** EDEL 443 or CIE 543 and current teaching certificate or consent of instructor.

CIE 639 - Curriculum Development Elementary Science Education

Credits 3

Emphasizes research and curriculum studies dealing with content and procedures of elementary school science programs.

**Formerly** CIE 739

**Prerequisites** One 600-level science instruction course or consent of instructor.

CIE 640 - Topics Elementary School Social Studies

Credits 1 – 3

Examines specific topics and issues in elementary school social studies.

**Formerly** CIE 740

**Same as** CIS 640

**Notes** Maximum of six credits accepted toward degree.

**Prerequisites** EDEL 453 or CIE 553 and current teaching license.

CIE 645 - Instruction Elementary Social Studies Education

Credits 3

Study of research-based practices and methods in elementary school social studies education.

**Formerly** CIE 745

**Prerequisites** EDEL 453 or CIE 553 and current teaching license.

CIE 649 - Curriculum Development Elementary Social Studies Education

Credits 3

Emphasizes research and curriculum studies dealing with content and procedures of elementary school social studies programs.

**Formerly** CIE 749

**Same as** CIS 649

**Prerequisites** EDEL 453 or CIE 553 and current teaching license.

CIE 681 - Elementary School Instruction

Credits 3

Research basis for developing and implementing instructional strategies and models of teaching for the elementary classroom.

**Formerly** CIE 701

**Prerequisites** Current teaching certificate.

CIE 683 - Elementary Classroom Management

Credits 3

Advanced study in managing various aspects of the classroom including establishing and maintaining positive psychosocial environments; rules, routines, and procedures to minimize disruption; discipline plans; and enriched curricula.

**Formerly CIE 702**

**Prerequisites** Current teaching certificate.

CIE 685 - Elementary Education Curriculum  
Credits 3

Current research, influences, trends and issues in the modern elementary school curriculum.  
Recommended as a culminating course.

**Formerly CIE 703**

**Prerequisites** Current teaching certificate.

CIE 687 - Curriculum Development Elementary Education  
Credits 3

Examines the conceptual framework and decision making involved in elementary school curriculum development.

**Formerly CIE 704**

**Prerequisites** CIE 685

CIG 500 - Topics Teacher Education  
Credits 1 - 3

Graduate credit may be obtained for courses designated 500 or above. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Formerly CIG 600**

**Notes** May be repeated to a maximum of six credits. Credit at the 500 level normally requires additional work.

CIG 600A - Curriculum and Instruction  
Credits 1 – 6

Specialized course in curriculum and instruction designed to develop depth in understanding a current educational topic for the in-service teacher.

**Formerly CIG 700**

**Notes** Maximum of six credits accepted toward a degree.

CIG 601 - Curriculum and Instruction Urban Settings  
Credits 3

This course is a research-based study of elementary and secondary education in urban settings that blends curriculum and instruction to develop an in-depth understanding of contemporary educational practices.

**Formerly CIG 701**

CIG 602 - Differentiated Curriculum and Instruction  
Credits 3

Research-based study of strategies to differentiate

curriculum and instruction in order to effectively assess learner needs, modify curriculum materials, plan and implement instruction, develop assignments, and evaluate learning outcomes.

**Formerly CIG 702**

CIG 603 - Urban Education  
Credits 3

Analysis of the needs and problems of pupils in the urban school, with special emphasis on the development of relevant curricula and teaching strategies. Field work on a pertinent problem required.

**Formerly CIG 703**

**Prerequisites** Subject area undergraduate methods course.

CIG 620 - Principles of Learning Mathematics  
Credits 3

Study of research involving cognitive factors that impact the learning of mathematics.

**Formerly CIG 720**

**Prerequisites** One 600-level course in mathematics instruction or consent of instructor.

CIG 621 - Diagnostic Assessment School Mathematics  
Credits 3

Study of the causes and effects of mathematics learning difficulties, methods and instruments useful in diagnosis and treatment. Evaluation of materials for the correction of mathematics learning problems.

**Formerly CIG 721**

**Prerequisites** One 600-level course in mathematics instruction or consent of instructor.

CIG 629 - Mathematics Education Seminar  
Credits 3

Examination of seminal and current mathematics education research through readings, writings, discussions and presentations.

**Prerequisites** Fifteen hours of graduate coursework or consent of instructor.

CIG 639 - Science Education Seminar  
Credits 3

Examination of seminal and current science education research through readings, writings, discussions and presentations.

**Prerequisites** Fifteen hours of graduate coursework or consent of instructor.

CIG 650 - Art History for Art Educator  
Credits 3

Study of art history and its relationship to the design and implementation of art curriculum in elementary and secondary education.

**Formerly** CIG 710

CIG 651 - Aesthetics and Criticism Art Education  
Credits 3

Study of aesthetics and art criticism concepts as curricular content in elementary and secondary art education.

**Formerly** CIG 711

CIG 652 - Technology Applications Art Education  
Credits 3

Research-based study of the integration of technology into the teaching and learning of elementary and secondary art education curriculum.

**Formerly** CIG 712

CIG 653 - Instructional Discipline-Based Art Education  
Credits 3

Study of research-based practices and methods in the teaching of discipline-based elementary and secondary school art education.

**Formerly** CIG 713

CIG 660 - Multicultural Education  
Credits 3

Introduces students to topics, issues, research, and practices associated with teaching in a diverse society.

**Formerly** CIG 750

**Prerequisites** Graduate standing.

CIG 661 - Topics Multicultural Education  
Credits 3

Examines specific topics and issues in multicultural education.

**Formerly** CIG 751

**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** CIG 660 or consent of instructor.

CIG 662 - Theory and Research Multicultural Education  
Credits 3

Examines research related to current programs, trends and issues relative to student instruction for the purpose of preparing teachers, administrators, and other educators to work with diverse populations.

**Formerly** CIG 752

**Prerequisites** CIG 660 or consent of instructor.

CIG 682 - Reflective Practice in Teaching  
Credits 3

Focuses on the theoretical bases, roles, approaches, and dimensions of teacher reflection. Provides students opportunities for reflective practice to improve teaching. Students acquire important knowledge and basic skills of teacher reflection necessary to be a master teacher.

**Formerly** CIG 704

CIG 689 - Curriculum and Instruction Seminar  
Credits 1 - 3

Examination of seminal and current mathematics education research through readings, writings, discussions and presentations.

**Formerly** CIG 717

**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** Fifteen hours of graduate coursework or consent of instructor.

CIG 690 - Teachers as Action Researchers  
Credits 3

Surveys literature on classroom action research as a new genre of research, examines important issues in the field of teacher research, and helps students begin conducting action research in their own classrooms. Students develop an action research project.

**Formerly** CIG 705

CIG 692 - Curriculum Evaluation in Education  
Credits 3

Study of research-based practices in general and specific curriculum evaluation.

**Notes** Requires a field-based curriculum evaluation project related to an elementary or secondary subject area and basic knowledge of statistics, research methodology, and curriculum theory.

**Prerequisites** CIE 685 or CIS 686 or consent of instructor.

CIG 697 - Curriculum and Instruction Culminating Experience  
Credits 1 – 3  
Culminating experience for M.Ed. students. Includes a selection of faculty approved options such as a comprehensive examination, professional manuscript or presentation, eportfolio project, or other equitable curricular experiences.

**Formerly** CIG 715

**Grading** S/F grading.

**Prerequisites** Thirty hours graduate course work.

CIG 698 - Curriculum and Instruction Professional Paper/Project  
Credits 3

Culminating activity for M.Ed. students. Paper/project requires the student to identify an educational issues applicable to a professional setting and conduct in-depth study or action research concerning the issue.

**Formerly** CIG 718

**Notes** Maximum of six credits accepted toward a degree.

**Grading** S/F grading only.

CIG 699 - Curriculum and Instruction Thesis  
Credits 3 – 9

Culminating activity for M.S. Students.

**Formerly** CIG 719

**Notes** Maximum of nine credits accepted toward a degree.

**Grading** S/F grading only.

**Prerequisites** CIG 689 and consent of instructor.

CIG 706 - Mentoring Strategies to Improve Teaching  
Credits 3

Addresses underlying theory of mentoring and development of mentoring strategies and practices. Aims to improve mentoring practices of experienced teachers working with novice teachers.

**Prerequisites** Consent of instructor.

CIG 716 - Reading and Conference  
Credits 1 – 3

Independent reading and study conference with assigned professor.

**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** Must be approved prior to registration.

CIG 760R - Inquiry into Teacher Education  
Credits 3

Supports students in analyzing major issues, questions, and trends in teacher education as well as the social, historical, and theoretical backgrounds. Familiarizes students with various forms of literature in the field of teacher education. Engages students in writing literature reviews and conference proposals.

CIG 761 - Theoretical Foundations of Education  
Credits 3

Examines the historical, philosophical, sociological, and cultural foundations of teaching and learning.

**Prerequisites** Doctoral status; or consent of instructor.

CIG 762 - Instructional Strategies and Learning to Teach in Higher Education  
Credits 3

Focuses on the past, present, and evolving pedagogical content of teacher education. Topics include: the role and work of the teacher educator, teacher educator curricular issues, and effective teaching strategies for working with adult learners.

**Prerequisites** Doctoral status.

CIG 763 - Teaching and Learning to Teach  
Credits 3

Broad overview of the process of learning to teach that begins long before a teacher enrolls in education courses. Explores empirical and conceptual questions about teacher learning across the career.

**Prerequisites** Doctoral status.

CIG 764 - Models of Teaching  
Credits 3

Considers the wide variety of approaches to teaching through historical, theoretical and research perspectives. Emphasis on the identification of models of teaching most appropriate to the objectives of individual lessons.

**Prerequisites** Doctoral status.

CIG 765 - Instructional Design  
Credits 3

Trends, issues, and research findings on effective instructional planning, presentation, and evaluation.

**Prerequisites** Doctoral status.

CIG 766 - Evaluation of Teaching

Credits 3

Survey of current methods in evaluating teaching including summative and formative evaluation; high and low inference instruments; validity, reliability and legal issues; and techniques of data gathering. Explores evaluation as a method of improving instruction.

**Prerequisites** EPY 702 and Doctoral status.

CIG 767 - Human Relations for the Teacher Educator

Credits 3

Inquiry into the role of cultural, racial, and social minorities in education.

**Prerequisites** Doctoral status.

CIG 768 - Advanced Curriculum Studies

Credits 3

Examines various philosophical and theoretical traditions in contemporary Curriculum Studies, including progressive educational thought, postmodern, post-structural, psychoanalytic, Marxist, postcolonial, feminist, and queer theory. One of three courses that fulfills the requirement for two Educational Foundations courses.

**Prerequisites** Doctoral status.

CIG 769 - Advanced Curriculum Evaluation in Education

Credits 3

Development and application of evaluation models, instruments, and strategies. Applications of selected models, instruments, and strategies to curriculum program evaluation projects. Requires in-depth evaluation report based on field experience project.

**Prerequisites** Doctoral status.

CIG 770 - Current Trends and Issues in Education

Credits 3

Contemporary trends and issues in curriculum development, teaching and learning in education.

**Prerequisites** Doctoral status or consent of instructor.

CIG 771 - Comparative Studies in Learning, Teaching, and Curriculum

Credits 3

Examines relationships between learning, curriculum, teaching, and teacher development within and across different countries and analyzes goals, theoretical

assumptions, methodological dilemmas, and implications of such comparisons.

**Prerequisites** Doctoral status.

CIG 772 - Introduction to Cultural Studies in Education

Credits 3

Examines the political, theoretical, and historical roots of Cultural Studies as it applies to issues of power, culture and knowledge in the field of education. Popular culture, media studies, youth/child culture figure prominently.

**Notes** This is a compulsory core for those in the International and Cultural Studies emphasis area.

**Prerequisites** Doctoral status

CIG 773 - Critical Literacies/Critical Pedagogies

Credits 3

Explores the work of Paulo Freire and the development of Critical Literacy and Critical Pedagogy.

**Notes** This is a required course for students of International and Cultural Studies and can be used as an elective for those doctoral students in literacy education.

**Prerequisites** Doctoral Status or Consent of Instructor

CIG 774 - Gender and Sexuality of Education

Credits 3

Examines current research and scholarship on curricular issues related to gender and sexuality in educational settings. The course will emphasize the pedagogical production of gender and sexual identities, drawing on gender, feminist, queer, postmodern and postcolonial theory.

**Prerequisites** Doctoral Status or Consent of Instructor

CIG 775 - Theoretical Frameworks for Science Education

Credits 3

Examines the backgrounds and applications of a variety of theoretical frameworks for qualitative, quantitative, and mixed-methods research in science education, including constructivist, hermeneutic, and critical theory frameworks. Students will analyze and critique such frameworks as they apply toward their own potential research topics.



**Prerequisites** Doctoral Status or  
Consent of Instructor

CIG 776 - Philosophical Foundations of Science  
Education  
Credits 3

An exploration of the works of twentieth century philosophers of science who were most influential in shaping the thinking about science among science education community. Aims to help participants develop informed and critical views of nature of science and its implications for science teaching and learning.

**Prerequisites** Doctoral status or Consent of  
Instructor

CIG 777 - Principles of Learning Science  
Credits 3

This advanced course is designed to develop an understanding of the theoretical ideas related to how people learn scientific concepts. Using a combination of current research from cognitive science, educational psychology, and evaluations of classroom interventions, students will explore a range of topics that relate directly to science learning.

**Prerequisites** Consent of instructor.

CIG 779 - Advanced Seminar in Curriculum and  
Instruction  
Credits 3

Concentrated study of literature on specified topics in curriculum and instruction studies. Specific topic announced in the schedule of classes.

**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** Doctoral status and consent of  
instructor.

CIG 780 - Research on Teaching and Schooling  
Credits 3

Examines, analyzes, and critiques research literature in contexts and cultures of teaching and schooling, teachers' knowledge and beliefs, school change and teacher change processes, and schooling for diverse learners.

**Prerequisites** Doctoral status. EPY 702 and CIG  
761 or consent of instructor.

CIG 781 - Theories and Research in Classroom  
Management

Credits 3

Assists teacher educators in exploring major models of classroom management with emphasis on developing strategies to promote teacher growth. Models include behavioristic, humanistic, and cognitive approaches toward managing student behavior. Development of classroom routines, preventive discipline, and organization of classroom environment.

**Prerequisites** Doctoral status.

CIG 782 - School Climate  
Credits 3

Study of research on effective schools relative to school climate; curricular, instructional, psychological, affective, and processing. Emphasis on utilization of research in developing and inservice education.

**Prerequisites** Doctoral status.

CIG 783 - Theory and Research in School  
Mathematics  
Credits 3

Analysis and evaluation of theories and research in school mathematics methods and curriculum with emphasis on theories and research leading to contemporary programs.

**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** Doctoral status. Six hours of course work in educational research, one 700-level course in mathematics methods, and consent of instructor.

CIG 784 - Theory and Research in School Science  
Credits 3

Analysis and evaluation of theories and research in school science methods and curriculum with emphasis on theories and research leading to contemporary programs.

**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** Doctoral status. Six hours of course work in educational research, one 700-level course in science methods, and consent of instructor.

CIG 785 - Theory and Research in School Social  
Studies  
Credits 3

Analysis and evaluation of theories and research in school social studies methods and curriculum with

emphasis on theories and research leading to contemporary programs.

**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** Doctoral status. Six hours of course work in educational research, one 700-level course in social studies methods, and consent of instructor

CIG 786 - Individual Instruction in Education  
Credits 1 – 6

Application of theory, actual research, or replication of studies related to school education.

**Notes** Maximum of six credits accepted toward degree. Must be approved prior to registration.

**Prerequisites** Doctoral status.

CIG 787 - Individual Instruction in Mathematics  
Education  
Credits 3

Application of theory, actual research, or replication of studies related to mathematics education.

**Notes** Maximum of six credits accepted toward degree. Must be approved prior to registration.

**Prerequisites** Doctoral status.

CIG 788 - Individual Instruction in Science  
Education  
Credits 3

Application of theory, actual research, or replication of studies related to science education.

**Notes** Maximum of six credits accepted toward degree. Must be approved prior to registration.

**Prerequisites** Doctoral status.

CIG 789 - Individual Instruction in Social Studies  
Education  
Credits 3

Application of theory, actual research, or replication of studies related to social studies education.

**Notes** Maximum of six credits accepted toward degree. Must be approved prior to registration.

**Prerequisites** Doctoral status.

CIG 790 - Doctoral Research Seminar  
Credits 3

Designed to assist a cohort of doctoral students in varying stages of dissertation development: prospectus writing, research design, data collection, data analysis, and oral defense.

**Notes** Maximum of nine credits accepted toward a

degree.

**Prerequisites** Doctoral status.

CIG 791 - Internship in Curriculum and Instruction  
Credits 1 – 3

Individually structured apprenticeship experience preparing students for future service. Requires up to 50 hour of work experience for each credit earned.

**Notes** Maximum of twelve credits accepted toward a degree.

**Prerequisites** Doctoral status and consent of instructor.

CIG 799 - Dissertation  
Credits 3

May be taken for variable credits over a period of several semesters, with final grade being withheld until the dissertation has been successfully defended. Once a student enrolls in CIG 799, enrollment must be continuous until the dissertation is successfully defended.

**Notes** May be repeated but only a maximum of 24 credits may be allowed in the student's program.

**Grading** S/F grading only.

**Prerequisites** Consent of advisor. 3-24 credits in increments of three.

Curriculum and Instruction – Literacy (K-12)

CIL 501 - Children's Literature Elementary School  
Curriculum  
Credits 3

Exposes teacher candidates to a wide range of children's literature and develops knowledge for selecting and sharing quality children's literature in the elementary classroom. Focuses on the role that children's literature plays in the elementary curriculum.

**Formerly** CIL 615

**Notes** This course is crosslisted with EDRL 401. Credit at the 500-level requires additional work.

CIL 511 - Teaching Language Arts Elementary  
Schools  
Credits 3

Current methods and materials for teaching language arts including oral language arts including oral language development, speaking and listening, written expression, spelling, and handwriting.

CIL 542 - Literacy Instruction I

Credits 3

Methods of instruction and assessment for primary grade readers and writers. Designed to help teacher candidates acquire knowledge and strategies related to literacy development and engagement through classroom application, reflection, analysis, and implementation of lessons with diverse learners.

**Formerly** CIL 655

**Notes** This course is crosslisted with EDRL 442. Credit at the 500-level requires additional work.

**Prerequisites** PPST

**Corequisite** Enrollment in a practicum.

CIL 600 - Topics Literacy Education

Credits 1 – 6

Examines specific topics and issues of content, materials, methods, and procedures related to literacy and literacy learning.

**Formerly** CIL 702

**Notes** Maximum of six credits accepted toward a degree.

CIL 601 - Foundations of Literacy Learning

Credits 3

Surveys theories and historical trends leading up to present day literacy instruction. Incorporates application of current research to the methods and philosophies of teaching reading and writing.

**Formerly** CIL 701

CIL 604 - Literacy Instruction for Young Children

Credits 3

Current trends, practices, materials, and methods utilized in grades K-3. Includes language development, reading and writing development, and application of current research.

**Formerly** CIL 604

**Notes** May include field experience.

**Prerequisites** CIL 601 or consent of instructor.

CIL 607 - Comprehensive Reading Instruction

Credits 3

Study of historical developments, theoretical underpinnings and practical applications of a comprehensive approach to literacy instruction.

**Prerequisites** CIL 601 or consent of instructor.

CIL 610 - Content Area Literacy

Credits 3

Development of literacy processes and strategies in content areas.

**Formerly** CIL 710

CIL 616 - Teaching Writing

Credits 3

Study of research-based practices and methods in teaching and assessing writing. Throughout the course students will explore the writing process through personal writing assignments.

**Formerly** CIL 716

CIL 617 - Southern Nevada Writing Project:

Invitational Institute

Credits 6

Participants in the SNWP Invitational Institute explore writing and the teaching of writing by engaging in the process themselves, demonstrating effective writing practices, planning school and community-based inquiry, and reading and responding to professional resources.

**Formerly** CIL 717

**Notes** As an invitational institute, application and interview process required.

**Prerequisites** Application and interview.

CIL 621 - Assessment in Literacy

Credits 3

Examines naturalistic assessment procedures in literacy based on a holistic philosophy. Students expected to field test selected assessment procedures. Strategies for improving instruction presented. K-12 perspective.

**Formerly** CIL 721

**Prerequisites** CIL 601 or consent of instructor.

CIL 622 - Practicum Literacy Diagnosis and

Instruction

Credits 3

Practicum in the application of principles, materials, and instructional strategies for teaching students with literacy difficulties.

**Formerly** CIL 722

**Prerequisites** CIL 621

CIL 629 - Reading Conference

Credits 3

Annual conference to bring together teachers and experts in reading, the related language arts, and reading in the content area. Presentation of timely

topics, new teaching techniques and technology-based media.

**Notes** May be repeated to a maximum of six credits.

**Grading** S/F grading only.

CIL 641 - Instruction English and Language Arts

Credits 3

Study of research-based instructional practices in the teaching of English/language arts.

**Formerly** CIL 711

**Prerequisites** CIL 701 or consent of instructor.

CIL 642 - Instruction English Education

Credits 3

Designed to connect the study of curriculum theory and research related to the teaching of English with the practices of teacher in the secondary English classroom. Methods for reading, writing, speaking and listening skills addressed.

**Formerly** CIL 712

CIL 643 - Curriculum Development English

Education

Credits 3

Emphasizes research and curriculum studies dealing with content and procedures in the English/language arts.

**Formerly** CIL 713

CIL 671 - Materials Selection School Library

Credits 3

Study of research-based practices and methods of assessing and selecting school library material to meet curricular needs and reading interests and abilities of students. Methods of acquisition include design and implementation of collection development policies and survey of bibliographic tools used in the selection of K-12 materials.

**Formerly** CIL 731

CIL 672 - Reference Methods and Resources School Library

Credits 3

Study of research-based practices and methods of the school library's informational curricular support function including the role of the school library specialist as an information resource consultant, teacher and instructional partner. Examines selected print and electronic reference tools including dictionaries, encyclopedias, yearbooks, periodical

indexes and subject area references.

**Formerly** CIL 732

CIL 673 - Technology Applications School Library

Credits 3

Examines the issues and methods for the application of library science-based technology in the school library.

**Formerly** CIL 733

CIL 674 - Organization and Classification School

Library

Credits 3

Introduction to the principles, practices and trends of organizing information in the school library including the classification, cataloging, and processing of materials for effective access and retrieval.

**Formerly** CIL 734

**Prerequisites** CIL 671 and CIL 672 or consent of instructor.

**Corequisite** Concurrent or prerequisite CIL 673.

CIL 675 - Administration School Library

Credits 3

Study of research-based principles and strategies for planning, organizing and administering school library programs and practices related to policy development, budgets, personnel, public relations, facilities planning, and systematic program planning and evaluation.

**Formerly** CIL 735

**Prerequisites** CIL 674

CIL 676 - Supervised Practicum School Library

Credits 3

Supervised library practicum under the direction of professional librarians in school settings.

**Formerly** CIL 736

**Prerequisites** CIL 674

**Corequisite** Concurrent or prerequisite CIL 675.

CIL 680 - Contemporary Literature Children and Young Adults

Credits 3

Designed for teachers and librarians. Evaluation, selection, and use of recent literature for children and young adults.

**Formerly** CIL 740

**Notes** May be repeated after a six-year period.

CIL 684 - Multicultural Literature

Credits 3

Study and critical evaluation of multicultural and multiethnic literature and media for children and young adults.

**Formerly** CIL 741

CIL 687 - Literature-Based Instruction

Credits 3

Study and application of principles and techniques of teaching reading and language arts with children's literature (trade books) as primary content.

**Formerly** CIL 742

**Prerequisites** CIL 680, CIL 681 or CIL 682

CIL 688 - Historical Development of Literature

Credits 3

Survey of the development of literature for children; investigation of social and cultural factors affecting children's reading and the publication of children's books during different periods of United States history; critical analysis of the literary value of children's books.

**Formerly** CIL 743

**Prerequisites** CIL 680, CIL 681, or CIL 682 or consent of instructor.

CIL 691 - Organization and Supervision Literacy

Programs

Credits 3

For individual serving in or preparing for leadership roles in literacy. Emphasis on the effects of education reform; evaluation of model programs; design, implementation and evaluation of district-wide programs; development of guidelines for staff development.

**Formerly** CIL 726

**Prerequisites** Fifteen hours graduate coursework in literacy or consent of instructor.

CIL 693 - Literacy for a Diverse Society

Credits 3

Advanced course work focuses on literacy issues for students, including diverse learners from various cultures, socioeconomic backgrounds, and language groups.

**Formerly** CIL 728

**Prerequisites** Fifteen hours graduate coursework in literacy or consent of instructor.

CIL 699 - Literacy Research Seminar

Credits 3

Examination of seminal and current literacy education research through readings, writings, discussions, and presentations.

**Formerly** CIG 717

**Prerequisites** Fifteen hours of graduate coursework or consent of instructor.

CIL 747 - Literary Theories and Children's Literature

Credits 3

Explores various theoretical positions within the framework of literary theory and how these positions have influenced reading and literature instruction. Participants will come to understand a range of perspectives within literary theory and be able to relate these theories to reading comprehension and literacy development.

**Prerequisites** CIL 740 or CIL 741

CIL 770 - Advanced Practicum in Diagnosis and Instruction of Literacy Difficulties

Credits 3

Advanced practicum in the application of principles, materials, and instructional strategies for teaching students with literacy difficulties.

**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** Doctoral status or consent of instructor.

CIL 772 - Cognitive Foundations of Literacy

Credits 3

Examines theories and research on cognition related to literacy learning and programs of literacy instruction for adults and children. Required of doctoral students in the literacy emphasis sequence.

**Prerequisites** Doctoral status.

CIL 774 - Historical Foundations of Literacy Research and Instruction

Credits 3

Examines the historical foundations of literacy research and instruction. Overview of significance of research and theories within literacy and the implications for instruction today.

**Prerequisites** Doctoral status.

CIL 776 - Social and Political Issues in Literacy

Credits 3

Examines the social and political implications of literacy access and development by investigating the role of literacy in culture, government, economics, technology and its future in society.

**Prerequisites** CIL 772 and CIL 774 or consent of instructor. Doctoral status.

CIL 782 - Theory and Research in the English/Language Arts

Credits 3

Critical interpretation and evaluation of research and theoretical writing in English/language arts.

**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** EPY 702 and EPY 721 or consent of instructor. Doctoral status.

CIL 784 - Theory and Research in Literacy

Credits 3

Critical review of major studies in literacy with the student identifying an area or areas which warrant investigation; planning a possible implementation of research proposal.

**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** Six hours of educational research from EPY 718, EPY 721, or EPY 722. Doctoral status.

TESL 761 - Literacy Development Bilingual Classroom

Credits 3

Current trends, practices, materials, and methods in literacy instruction in a bilingual (Spanish-English) classroom, including Spanish language development, reading and writing development, and application of research.

TESL 764 - Assessment Bilingual Classroom

Credits 3

Assessment of bilingual (Spanish-English) students; selection of appropriate bilingual (Spanish-English) assessment instruments, their administration, scoring, and interpretation.

**Formerly** CIL 664.

**Prerequisites** TESL 752

TESL 765 - Curriculum Development Bilingual Classroom

Credits 3

Principles of curriculum organization, development, adaptation, and implementation of a bilingual (Spanish-English) curriculum.

**Formerly** CIL 665.

**Prerequisites** TESL 752

CIG 649 - Social Studies Education Seminar

Credits 3

Examination of seminal and current social studies education research through readings, writings, discussions and presentations.

**Prerequisites** Fifteen hours of graduate coursework or consent of instructor.

CIS 513A - Teaching Secondary Art

Credits 3

Provides an overview of methods and materials to include instructional strategies, curriculum standards, and classroom management techniques for teaching secondary school art. Students must have completed or be currently enrolled in courses to complete three-fourths of the content coursework in art.

**Corequisite** CIS 602, CIS 603

CIS 543 - Teaching Secondary Foreign/Second Language

Credits 3

Provides an overview of theories, methods, materials to include instructional strategies, curriculum standards, and classroom management techniques for teaching Languages Other Than English (LOTE) at the secondary school level. Students must have completed or be currently enrolled in courses to complete three-fourths of the content coursework in LOTE.

**Prerequisites** 20-24 semester credit hours of LOTE.

**Corequisite** CIS 602, CIS 603

CIS 553M - Teaching Middle School Mathematics

Credits 3

Explore mathematics and its relation to education in grades 6 through 9. The focus is to develop skills in planning and teaching mathematics. Lessons incorporate use of technology, cooperative learning, and manipulatives while providing an environment to construct knowledge about arithmetic, algebra, geometry, probability, and statistics. Evaluation using formative and summative strategies.

**Notes** This course is crosslisted with EDMS 453.

Credit at the 500-level requires additional work.

**Prerequisites** PPST

**Corequisite** Concurrent enrollment in a practicum

CIS 553S - Teaching Secondary Mathematics  
Credits 3

The focus is on developing skills in planning and teaching mathematics for grades 9–12 that are consistent with Mathematics Standards. Students explore instructional strategies to develop understanding of concepts in the topic areas of arithmetic, algebra, geometry, trigonometry, calculus, probability, and statistics. Evaluation procedures use formative and summative strategies.

**Notes** This course is crosslisted with EDSC 453.  
Credit at the 500-level requires additional work.

**Prerequisites** PPST

**Corequisite** Concurrent enrollment in a practicum.

CIS 563 - Teaching Secondary Science  
Credits 3

This course is designed for candidates intending to teach high school science. Course topics include: assessing knowledge before instruction, designing curriculum, planning lessons, promoting inquiry-oriented teaching, teaching about evolution and nature of science, scientific literacy, laboratory safety, national and state standards, using technology, and assessing student learning.

**Notes** This course is crosslisted with EDSC 463.  
Credit at the 500-level requires additional work.

**Prerequisites** PPST

**Corequisite** Enrollment in a practicum and CIS 702.

CIS 573 - Teaching Secondary Social Studies  
Credits 3

Teaching Secondary Social Studies

CIS 601 - Secondary Teacher Development Seminar  
Credits 3

Designed for students entering the Secondary Graduate Licensure program. Examines contemporary trends for developing classroom expertise with observations in a middle or high school setting. Focuses on theory and practice in fostering personal and professional development for inservice teachers.

**Formerly** CIS 701

**Same as** CIE 601

**Prerequisites** Graduate standing.

**Corequisite** Admission to Graduate Licensure Program.

CIS 602 - Secondary School Practicum  
Credits 3

Designed for Secondary Graduate Licensure students. Exposure to contemporary urban educational settings and basic management and planning strategies through structured experiences in a middle or high school settings, supplemented with campus-based instruction.

**Formerly** CIS 702

**Prerequisites** PPST and CIS 601

**Corequisite** CIS 603 and subject area methods.

CIS 603 - Secondary Process and Instruction  
Credits 3

Designed to examine effective teaching practices and theories. Students examine research literature in classroom organization and management, instructional planning, classroom contexts and conditions. Provides analyses of the secondary classroom processes, school context, and the community at large.

**Formerly** CIS 703

**Prerequisites** PPST and CIS 601

**Corequisite** CIS 602 and subject area methods.

CIS 604 - Secondary Classroom Management  
Credits 3

Students engage in the examination of theories, models and application of classroom management to develop a personal philosophy and effective practices of managing contemporary middle and high school classrooms.

**Formerly** CIS 711

**Prerequisites** Graduate standing

CIS 610 - Middle School History, Theory, and Philosophy  
Credits 3

Study of history, theory, and philosophy of middle school learning environments. Emphasis on application of theory and philosophy to contemporary middle school contexts.

**Formerly** CIS 716

CIS 611 - Instructional Trends for the Middle School Level  
Credits 3

Study of application of knowledge about instructional strategies, adolescent development, and models of teaching to the middle school context. Students design lessons appropriate for middle-level learners and examine literature on interdisciplinary teaching and middle-level learners.

**Formerly** CIS 717

**Prerequisites** CIS 710

CIS 612 - Curriculum Development Middle School Education

Credits 3

Studies application of curriculum development theory to middle school context. Emphasis on middle-level teacher's role in curriculum development. Students examine and develop interdisciplinary teaching units.

**Formerly** CIS 718

**Prerequisites** CIE 685 or CIS 684 or CIS 686

CIS 613 - Contemporary Middle School Research

Credits 3

Assessment of research practices and trends in middle schools. Emphasis on application of research findings to school classroom. Proposals for action research projects in middle school learning environment required.

**Formerly** CIS 719

**Prerequisites** Three hours course work in research; six hours in middle school education.

CIS 617 - Topics Secondary Education

Credits 1 – 3

Examines specific topics and issues related to content in secondary subjects.

**Formerly** CIS 707

**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** Current teaching certificate or consent of instructor.

CIS 618 - Instructional Methods Secondary School

Credits 3

Study of research-based practice and methods related to curricular content in specific secondary subjects.

**Formerly** CIS 708

**Prerequisites** Current teaching certificate or consent of instructor.

CIS 620 - Topics Secondary School Mathematics

Credits 1 - 3

Examines specific topics and issues related to content and pedagogy in secondary mathematics education.

**Same as** CIE 620

**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** Secondary mathematics undergraduate methods course and current teaching certificate.

CIS 622 - Instructional Middle School Mathematics Education

Credits 3

Study of research-based practice and methods in middle school mathematics education.

**Prerequisites** EDEL 433 or EDMS 453 or EDSC 453 or consent of instructor.

CIS 624 - Instruction Secondary Mathematics Education

Credits 3

Study of research-based practice and methods in secondary school mathematics education.

**Formerly** CIS 724

**Prerequisites** EDMS 453 or EDSC 453 or consent of instructor.

CIS 628 - Technology Application in Secondary Mathematics Education

Credits 3

Study and development of research-based practices and methods of using computer-based technology to teach mathematics in secondary schools.

**Formerly** CIS 728

**Prerequisites** CIS 622 or CIS 624 or consent of instructor.

CIS 629 - Curriculum Development Secondary Mathematics Education

Credits 3

Examines research and curriculum studies related to content and procedures within secondary school mathematics programs.

**Same as** CIE 629

**Prerequisites** CIS 622 or CIS 624 or consent of instructor.

CIS 630 - Topics Secondary School Science

Credits 1 - 3

Examines specific topics and issues related to content and pedagogy in secondary science education.

**Same as** CIE 630



**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** Current teaching certificate or consent of instructor.

CIS 632 - Instruction Middle School Science

Education

Credits 3

This course is designed for teachers of middle school science. Course topics include: assessing knowledge before instruction, designing curriculum, planning lessons, promoting inquiry-oriented teaching, teaching about evolution and nature of science, scientific literacy, laboratory safety, national and state standards, using technology, and assessing student learning.

**Prerequisites** EDSC 463 or consent of instructor.

CIS 634 - Instruction Secondary Science Education

Credits 3

Study of research-based practice and methods in secondary school science education.

**Prerequisites** EDSC 463 or EDSC 563 and current teaching certificate or consent of instructor.

CIS 638 - Technology Applications in Secondary Science Education

Credits 3

Study and development of research-based practices and methods of using computer-based technology to teach science in secondary schools.

**Formerly** CIS 738

**Prerequisites** CIS 632 or CIS 634 or consent of instructor.

CIS 639 - Curriculum Development Secondary Science Education

Credits 3

Examines research and curriculum studies related to content and procedures within secondary school science programs.

**Same as** CIE 639

**Prerequisites** CIS 632 or CIS 634 or consent of instructor.

CIS 640 - Topics Secondary Social Studies Education

Credits 1 - 3

Examines specific topics and issues related to content and pedagogy in secondary social studies education.

**Same as** CIE 640

**Notes** Maximum of six credits accepted toward a degree.

**Prerequisites** Current teaching certificate or consent of instructor.

CIS 644 - Instruction Secondary Social Studies

Education

Credits 3

Study of research-based practice and methods in secondary school social studies education.

**Prerequisites** EDSC 473 or EDSC 573 and current teaching certificate or consent of instructor.

CIS 649 - Curriculum Development Secondary Social Studies Education

Credits 3

Examines research and curriculum studies related to content and procedures within secondary school social studies programs.

**Same as** CIE 649

**Prerequisites** CIS 644 or consent of instructor.

CIS 682 - Secondary School Instruction

Credits 3

Examines effective teaching practices derived from classroom-based research. Includes instructional planning, instructional strategies, motivational techniques, teaching models, and the teacher-as-researcher.

**Formerly** CIS 704

**Prerequisites** EDSC 481 or consent of instructor.

CIS 684 - Secondary Education Curriculum

Credits 3

Examines the major input variables to curriculum decision-making at the secondary level. Emphasis on the levels of curriculum decision-making, decision implementations, and curriculum evaluation.

**Formerly** CIS 705

**Prerequisites** EDSC 481 or consent of instructor.

CIS 686 - Curriculum Development Secondary Education

Credits 3

Introduces problem of conducting systematic inquiry in the curriculum field related to a subject area discipline, including generation of practical programs, curriculum research and theory, innovative proposals, and critical analysis. Current status of

field, literature sources, and work of leading scholars.

**Prerequisites** CIS 618 or CIS 684

CIT 600 - Topics in Educational Technology:  
Credits 1 - 6

Specialized course that explores current educational technology topics.

CIT 601 - Technology Applications Elementary Curriculum  
Credits 3

Study of issues and applications of digital technologies in elementary schools. Students will explore appropriate uses of technology and gain hands-on experience in developing instructional activities using technology applications.

**Formerly** CIT 701

**Same as** CIT 602

CIT 602 - Technology Applications Secondary Curriculum  
Credits 3

Study of issues and applications of digital technologies in secondary schools. Students will explore appropriate uses of technology and gain hands-on experience in developing instructional activities using technology applications.

**Formerly** CIT 702

**Same as** CIT 601

CIT 604 - Nevada Technology Leadership Conference  
Credits 1

Annual conference to bring together educators interested in enhancing teaching and learning with computer-based technology. Presentations of timely topics, new techniques and strategies, and the latest hardware and software applications.

**Formerly** CIT 704

**Notes** Maximum of three credits accepted toward a degree.

**Prerequisites** Course work or experience in computing.

CIT 607 - Technology as Educational Mindtools  
Credits 3

Examines current technologies as examples of mindtools, research-based devices used to help students think and learn. Explores mindtools as a cognitive model and uses technology as a mindtool while providing students with the requisite skills to

implement these tools in a classroom setting.

**Formerly** CIT 707

CIT 608 - Integrating Technology in Teaching and Learning  
Credits 3

Study of research-based practices and methods of integrating technology to promote thinking and learning. Students actively explore contemporary technologies and environments for the production and consumption of information.

**Formerly** CIT 720 and CIT 620.

**Prerequisites** Coursework in educational technology or consent of instructor.

CIT 609 - Internet for Learning  
Credits 3

Examines the potential of the Internet to impact education and learning. Explores a wide range of online resources and how they can be integrated into instruction.

**Formerly** CIT 709

CIT 611 - Digital Publishing for Educators  
Credits 3

Hands-on tutorials and design assignments for using page layout and graphics software to create well designed, effective publications for professional and instructional purposes. Topics include: design principles, layout techniques, graphics and type manipulation, importing media, and desktop publishing projects for the classroom.

**Formerly** CIT 711

**Prerequisites** Coursework in educational technology or consent of instructor.

CIT 622 - Microcomputer Technology for Educators  
Credits 3

In-depth look at how personal computers work. Microprocessors, printed circuit boards, bus structures, storage devices, and display options examined from the perspective of how they impact educational applications, purchasing decisions, and planning.

**Formerly** CIT 722

**Prerequisites** Coursework in educational technology or consent of instructor.

CIT 643 - Designing Digital Materials for Education  
Credits 3

Examines instructional design principles and applies them to the design of instructional software. Explores various theories of learning as they apply to courseware.

**Formerly** CIT 743

**Prerequisites** CIT 608 or consent of instructor.

CIT 647 - Creating Online Learning Environments  
Credits 3

Educational Web site development using contemporary tools and contexts. Emphasis on web-based programming and user interface design.

**Formerly** CIT 747

**Prerequisites** CIT 609 or consent of instructor.

CIT 648 - Issues and Methods in Online Learning  
Credits 3

Addresses the theory and practice for online teaching and learning. Participants explore a range of resources and extend skills in creating and implementing digital learning activities. Emphasis is on pedagogical issues and trends in virtual schooling and distance education.

**Formerly** CIT 768, CIT 668

**Prerequisites** CIT 609 or consent of instructor.

CIT 649 - Instructional Methods Computer Applications  
Credits 3

Study of research-based practices and methods for teaching computer applications. Emphasis on developing project-based instructional activities for teaching digital technologies in the elementary/secondary classroom or professional development settings.

**Formerly** CIT 749

**Prerequisites** Coursework in educational technology or consent of instructor.

CIT 651 - Instructional Methods Computer Science  
Credits 3

Study of research-based practices and methods in the teaching of computer science topics including algorithmic processes and their principles, object orientation and programming, elements of software design and usability, data abstraction and logic structures, and interface design. Emphasis is on project-based learning (PBL) strategies in a web-based development environment.

**Formerly** CIT 751

**Prerequisites** Consent of instructor.

CIT 653 - Creating Digital Materials for Education  
Credits 3

Focus on current application programming interfaces for developing digital educational materials.

**Formerly** CIT 753

**Prerequisites** CIT 643 or consent of instructor.

CIT 667 - Technology and Educational Change  
Credits 3

Examines issues and trends pertaining to the implementation of technology-based innovations. Includes a review of research on past and current change efforts. Topics covered include professional development, assessment, strategies for technology coordinators, grant writing, and long-range planning for effective change.

**Formerly** CIT 767

**Prerequisites** CIT 608 or consent of instructor.

CIT 669 - Advanced Web Design and Development for Educators  
Credits 3

Advanced educational web site development with emphasis on web-based programming and user interface design. Development environments such as JavaScript, Perl/ CGI, and brief introduction to Java explored.

**Formerly** CIT 769

**Prerequisites** CIT 647 or consent of instructor.

CIT 673 - Digital Materials Studio  
Credits 3

Project-based course emphasizing problem definition, instructional design, and product development. Students work individually and collaboratively on a set of relevant technical and pedagogical competencies.

**Formerly** CIT 763

**Prerequisites** CIT 643 or consent of instructor.

CIT 676 - Management of Educational Technology Facilities and Resources  
Credits 3

Advanced course focusing on problems and issues in procurement and management of educational computing applications, desktop workstations,

computer laboratories, local and wide area networks, and support services. Consideration given to hardware and software interoperability; security for hardware, software and information; legal issues; health and safety factors; budgeting.

**Formerly** CIT 766

**Prerequisites** CIT 622

CIT 700 - Advanced Topics in Educational Technology

Credits 1 – 6

Specialized course that explores current educational technology topics and issues.

CIT 770 - Foundations in Technology & Learning  
Credits 3

Emphasis is on critical review and analysis of computer-mediated communications, human-computer interaction, and human factors design research for learning contexts.

**Prerequisites** Doctoral status or consent of instructor.

CIT 772 - Technology in Teacher Education  
Credits 3

Examines issues and research on preparing teachers to enhance learning with technology. Topics include ISTE's National Educational Technology Standards (NETS) for Students and Teachers, technology integration in methods courses and field experiences, electronic portfolio assessment, one-to-one laptop projects, and online learning in teacher preparation and professional development.

**Prerequisites** Doctoral status or consent of instructor.

CIT 778 - Instructional Design  
Credits 3

Trends, issues, and research findings on effective instructional planning, presentation, and evaluation.

**Prerequisites** Doctoral status or consent of instructor.

CIT 780 - Educational Technology Research and Practice

Credits 3

Examines the latest research regarding learning and educational technology. Research supported principles will be applied in the development of instructional materials. This course can be taken up to

3 times for a total of 9 credit hours.

**Prerequisites** CIT 770 or consent of instructor.

CIT 782 - Distance Education Issues and Trends  
Credits 3

Study of issues, and trends in Distance Education. Examines distance education history, research, practice, and program/course development.

**Prerequisites** Doctoral status or consent of instructor.

ESP 723 - Learning Strategies Instruction  
Credits 3

Theoretical and practical aspects of implementing a learning strategy curriculum within elementary and secondary school environments. Class participants analyze, synthesize, and modify instructional strategies to meet the needs of students with disabilities.

**Prerequisites** ESP 701

CIS 533 - Teaching Secondary English  
Credits 3

This course is designed for preservice teachers planning to teach high school English. Course topics include methods, materials, teaching techniques, and strategies unique to the English classroom, as well as curriculum design, lesson planning, assessment, and current issues in the teaching of English.

**Notes** This course is crosslisted with EDSC 433.

Credit at the 500 level requires additional work.

**Corequisite** CIS 702

## **Howard R. Hughes College of Engineering**

Welcome to the Howard R. Hughes College of Engineering! We are confident that you will find UNLV, as well as our College of Engineering, an exciting place to pursue your graduate studies and mature as a researcher. The College of Engineering has played a significant role in helping UNLV develop into a leading research institution in the region. We have created a research and educational environment where our students thrive and grow, resulting in a dynamic community of scholars, encompassing our faculty as well as graduate and undergraduate students.

Graduate students in the College of Engineering study a variety of disciplines: we offer degrees in aerospace, biomedical, civil and environmental, electrical and computer, science, materials, mechanical, and nuclear engineering as well as construction management and computer science. Students have first-class research facilities available to them while studying under the supervision of our faculty, many of whom have won national and international recognition. Our graduate students are involved in all aspects of the research projects our faculty pursue. Some of our current research areas include air and water quality, cybersecurity, nano materials and devices, transportation, renewable energy, sensors and systems for space and national security applications.

Our graduates work in many leading companies, both in the USA and internationally. Some of these students serve in the national laboratories, while others are leading research efforts in some of the best organizations.

As the boundaries of science and engineering continue to expand, UNLV's College of Engineering is committed to offering a variety of competitive programs to our students. We are confident that you will find our graduate programs both challenging and rewarding. We hope that you will join us at UNLV.

*Rama Venkat, Ph.D., Interim Dean, Howard R. Hughes College of Engineering*

*Mohamed Trabia, Ph.D., Associate Dean for Research*

## Graduate Certificate in Solar & Renewable Energy

### Plan Description

The School of Environmental and Public Affairs offers a Graduate Certificate in Solar and Renewable (SRE) Energy. The Certificate is designed for individuals already in possession of either a baccalaureate degree or a graduate degree. More specifically, the Certificate provides a specialized qualification for career professionals in the energy industry, professionals from other fields and individuals with baccalaureate degrees seeking entry into the renewable energy field, or currently enrolled graduate students seeking an additional specialization. This Certificate is designed to:

- Provide an interdisciplinary approach to SRE grounded in the three critical pillars of policy and governance, technology and physical science, and the built environment.
- Develop within students the intellectual and problem-solving foundation for a successful professional career in the SRE field.
- Improve the overall effectiveness of the solar and renewable energy sector in Nevada and the Western U.S.

Students earning the Certificate may apply for admission into UNLV graduate degree programs as long as they meet the existing admissions criteria for said programs.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. Applicants must have earned an undergraduate degree from a regionally accredited college or university with an overall undergraduate GPA of 2.75 or higher.

2. Applicants must be accepted by the Graduate College and the Advisory/Admissions Committee for the SRE Certificate program.
3. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 18

Course Requirements

#### Required Course – Credits: 3

ME 677 - Solar and Renewable Energy Utilization

#### Environmental Decision Making Course – Credits: 3

Complete one of the following courses:

ENV 702 - Environmental Problem Solving

ENV 720 - Natural Resource Valuation

PAF 703 - Individual and Group Decision Making

#### Built Environment Course – Credits: 3

Complete one of the following courses:

CEM 680 - Sustainable Construction

ABS 632 - Solar Energy Applications in Architecture

#### Energy Policy Course – Credits: 3

Complete three credits from the following list of courses:

ENV 611 - Environmental Risk Management

ENV 702 - Environmental Problem Solving

ENV 703 - Environmental Law and Policy Seminar

ENV 711 - Risk Assessment and Risk Management

ENV 720 - Natural Resource Valuation

ENV 750 - Environmental Studies and Public Policy

LAW 651 - Environmental Quality Law  
ECO 707 - Environmental and Natural Resource  
Economics  
PAF 701 - Origins and Development of Public Policy  
in America  
PAF 702 - Role of Government in Society  
PUA 725 - Policy Analysis and Program Evaluation  
PUA 745 - Administration in a Federal and  
Intergovernmental Perspective  
PUA 756 - Policy Implementation

### **Engineering & Science Course – Credits: 3**

Complete three credits from the following list of  
courses:

CEM 680 - Sustainable Construction  
CEM 755 - Renewable Energy Capital Facility  
Projects  
ABS 531 - Environmental Control Systems I  
ABS 532 - Environmental Control Systems II  
ABS 632 - Solar Energy Applications in Architecture  
GEOL 610 - Soil Classification and Resource  
Management  
GEOL 630 - Geographic Information Systems (GIS):  
Theory and Applications  
GEOL 646 - Geologic Applications in Remote  
Sensing  
ENV 660 - Environmental Modeling  
ENV 680 - Geographic Information Systems for  
Environmental & Socioeconomic Analysis  
ECG 646 - Photovoltaic Devices and Systems  
ECG 642 - Power Electronics  
ECG 653 - Introduction to Nanotechnology  
ECG 740 - Computer Analysis Methods for Power  
Systems  
ECG 741 - Electric Power Distribution System  
Engineering  
ECG 742 - Power System Stability and Control  
ECG 757 - Electron Transport Phenomena in Solid  
State Devices  
ME 619 - Advanced HVAC and Energy  
Conservation Systems  
ME 705 - Conduction Heat Transfer  
ME 707 - Radiation Heat Transfer  
ME 711 - Advanced Thermodynamics  
ME 714 - Computational Aspects of Solar Energy  
ME 746 - Experimental Design and Analysis of  
Digital Process Control Systems

### **Elective Course – Credits: 3**

Complete three credits from the Energy Policy or  
Engineering & Science courses listed above.

### **Certificate Requirements**

Completion of a minimum 18 credit hours with a  
minimum GPA of 3.00.

### **Plan Certificate Completion Requirements**

The student must submit all required forms to the  
Graduate College and then apply for graduation in  
MyUNLV by the appropriate deadline.

## Civil and Environmental Engineering and Construction

Well-equipped facilities developed by the department faculty include a Computer Assisted Design Laboratory, an Engineering Geophysics Laboratory and Test Site, an Environmental Engineering Laboratory, A Soil and Rock Mechanics Laboratory, the Nevada Universities Transportation Center, and a Water Resources Laboratory. These facilities provide state-of-the-art research tools. Among these are a MTS dynamic testing machine, a triaxial testing apparatus, a large-scale structural load frame, a 50-foot tilting flume, concrete testing facilities, a portable wind tunnel, a broad geophysical test equipment base anchored by a 7,000-lb (3 metric ton) programmable seismic source with 144-channel recording system, PCs, workstations, and current software programs are available within these facilities, with additional facilities being available in the college. Additional assets include access to high speed multiprocessor computers housed in the National Supercomputing Center for Energy and the Environment. Facilities are located in the Thomas Beam Engineering Complex. Additional research facilities nearby include one of twelve national EPA laboratories (located on campus) and the Department of Energy's Nevada Test Site, which has been designated an Environmental Research Park.

Students with backgrounds in civil engineering as well as related disciplines are invited to apply. Students with science backgrounds desiring admission to the graduate program will be required to complete course work, prerequisite or otherwise, that will assure successful completion of the graduate program. Specific course work requirements will depend on the area of specialization desired by the applicant.

Civil Engineering applicants must identify a specialization from one of the following areas: construction, environmental, geotechnical, structural, systems, transportation or water resources.

Applications for admission to the program are evaluated by faculty representing each of the respective areas of specialization.

Applications from international students must reach the Graduate College by the dates specified in the

catalog in order to be considered for financial aid. Offers of financial aid are made in writing by the department, which assumes no responsibility to provide financial support unless an offer is made in writing. Also, when the department has made an offer to provide financial support, it has no obligation to honor the offer unless the student attends UNLV and enrolls in the Civil and Environmental Engineering and Construction graduate program during the initial semester for which financial aid was offered.

Applicants should notice that some documents must be mailed to the Graduate College while others must be mailed to the Department of Civil and Environmental Engineering and Construction, as outlined below. It is imperative that the documentation is sent to the appropriate location to aid fast processing of the application.

The deadlines for application to the Civil and Environmental Engineering and Construction Department as well as the Graduate College:

**Spring Semester** August 30 for international students and November 15 for domestic students

**Fall Semester** March 15 for international students and June 15 for domestic students

*Donald Hayes, Ph.D., Chair*

*Aly Said, Graduate Coordinator*



## Civil and Environmental Engineering Faculty

### Chair

#### **Hayes, Donald**

Professor; B.S.C.E., M.S.C.E., Mississippi State University; Ph.D., Colorado State University; PE Louisiana and Mississippi. *Rebel since 2011.*

### Graduate Coordinator

#### **Ghafoori, Nader** - Full Graduate Faculty

Professor; B.S.C.E., Texas Tech University; M.S.C.E., Ph.D., University of Miami. *Rebel since 2003.*

### Graduate Faculty

#### **Ahmad, Sajjad** - Full Graduate Faculty

Assistant Professor; B.S., University of Engineering and Technology, Lahore, Pakistan; M.E., Asian Institute of Technology, Bangkok, Thailand; Ph.D., University of Western Ontario, London, Ontario, Canada. *Rebel since 2006.*

#### **Ashley, David** - Full Graduate Faculty

Professor: B.S., M.S., MIT; M.S., Ph.D., Stanford. *Rebel since 2006.*

#### **Batista, Jacimaria Ramos** - Full Graduate Faculty

Professor; B.S., Federal University of Ouro Preto; M.S., Montana College of Mineral Science and Technology; Ph.D., Pennsylvania State University. *Rebel since 1997.*

#### **Ghafoori, Nader** - Full Graduate Faculty

Professor; B.S.C.E., Texas Tech University; M.S.C.E., Ph.D., University of Miami. *Rebel since 2003.*

#### **Gerrity, Daniel** - Full Graduate Faculty

Assistant Professor; B.S., M.S., Ph.D., Arizona State University. *Rebel since 2012.*

#### **James, David E.** - Full Graduate Faculty

Professor; A.B., University of California, Davis; M.S., Ph.D., California Institute of Technology. *Rebel since 1990.*

#### **Karakouzian, Moses** - Full Graduate Faculty

Professor; B.C.E., American University of Beirut; M.S., M.B.A., Ph.D., Ohio State University; P.E., Nevada. *Rebel since 1988.*

#### **Kaseko, Mohamed S.** - Full Graduate Faculty

Associate Professor; B.S., University of Dares-Salaam; M.S., Cornell University; Ph.D., University of California, Irvine. *Rebel since 1993.*

#### **Ladkany, Samaan** - Full Graduate Faculty

Professor; B.S., American University of Beirut; B.S., M.S., Ph.D., University of Wisconsin, Madison. *Rebel since 1984.*

#### **Luke, Barbara** - Full Graduate Faculty

Professor; A.A., University of Florida; B.S., Ph.D., University of Texas at Austin; M.S., University of California, Berkeley. *Rebel since 1995.*

#### **Neumann, Edward S.** - Full Graduate Faculty

Professor; B.S.C.E., Michigan Technological University; M.S., Ph.D., Northwestern University. *Rebel since 1991.*

#### **Opfer, Neil** - Full Graduate Faculty

Associate Professor; B.S., B.A., B.A., Washington State University; M.B.A., Purdue University; P.D., University of Wisconsin. *Rebel since 1989.*

#### **Paz, Alexander** - Full Graduate Faculty

Assistant Professor; B.S., University of Cauca, Colombia; M.S., University of Puerto Rico, Mayaguez Campus, PR; Ph.D., Purdue University. *Rebel since 2008.*

#### **Piechota, Thomas** - Full Graduate Faculty

Associate Professor; B.S., Northern Arizona University; M.S., Ph.D., University of California, Los Angeles. *Rebel since 1999.*

#### **Shields, David** - Full Graduate Faculty

Associate Professor; B.S., M.S., Texas A & M University; Ph.D., University of Texas at Austin, P.E. (Arizona). *Rebel since 2003.*

#### **Shrestha, Pramen P.** - Full Graduate Faculty

Assistant Professor; B.S., National Institute of Technology, India; M.S., Oklahoma State University; Ph.D., University of Texas at Austin; P.E. (Texas). *Rebel since 2007.*

**Teng, Hualiang** - Full Graduate Faculty  
Assistant Professor; B.S., M.S., Northern Jiaotong University; M.S.C.E., West Virginia University; Ph.D., Purdue University. *Rebel since 2004.*

**Tian, Ying** - Full Graduate Faculty  
Assistant Professor; B.S., Hebei Polytechnic University; M.S., Tsinghua University; M.S., Ohio State University; Ph.D., University of Texas at Austin. *Rebel since 2007.*

### **Professor Emeriti**

**Frederick, Gerald R.**  
Emeritus Professor; B.S., University of Toledo; M.S., Ph.D., Purdue University. *UNLV Emeritus 1993.*

**Vodrazka, Walter C.**  
Emeritus Professor; B.C.E., Manhattan College; M.S., Mississippi State University; Ph.D., Purdue University. *UNLV Emeritus 1990.*

**Wyman, Richard V.**  
Emeritus Professor; B.S., Case Western Reserve University; M.S., University of Michigan; Ph.D., University of Arizona. *UNLV Emeritus 1969-1992.*

## Doctor of Philosophy - Civil and Environmental Engineering

### **Plan Description**

The Department of Civil and Environmental Engineering & Construction at UNLV offers a number of program degree options leading to the Doctor of Philosophy (Ph.D.) - Civil and Environmental Engineering. Specific areas of engineering that are currently available include Construction, Environmental, Geotechnical, Structural, Transportation, and Water Resources.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Admission to the program leading to the Ph.D. in Engineering in the field of Civil and Environmental Engineering is open to those students completing the following requirements:

1. Application must be made to the Department of Civil and Environmental Engineering. Applications must include all documentation as required by the Graduate College. The Department of Civil and Environmental Engineering will admit the student and supervise the student's Ph.D. program.
2. The applicant must have a Master of Science in Engineering degree or equivalent with a major in civil engineering or a closely allied field. Students with non-engineering backgrounds will be required to complete a set of course work requirements that will assure successful completion of the Ph.D. specialization and qualify the student to sit for the Fundamentals of Engineering (FE) exam. Special cases will be decided upon by the Graduate Program Committee (GPC).
3. The applicant must submit a written statement of purpose indicating interests and

objectives in working toward a Ph.D. degree. In addition, three letters of recommendation for Ph.D.-level study must be submitted.

4. Applicants from countries where English is not the native language must take the Test of English as a Foreign Language, earn scores of at least 213 (computerized) or 550 (written), and submit an official report of the score to the Graduate College.
5. The GPC will examine the applicant's academic record and will make the final determination of the applicant's admissibility to the Ph.D. program. In general, a minimum post-baccalaureate GPA of 3.20 on a 4.00 scale or equivalent is required for admission.
6. All applicants are required to take the verbal, quantitative, and analytical writing portions of the GRE General Test and submit the scores to the Civil and Environmental Engineering department. Successful applicants generally have a combined verbal and quantitative GRE score of at least 300 on the new test (1000 on all GRE exams taken before August 2011) and GRE analytical writing score of at least 3.
7. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 45

Course Requirements

### **Elective Courses – Credits: 27**

Complete 27 credits of advisor-approved elective coursework.

### **Dissertation – Credits: 18**

## CEE 799 - Dissertation Research

### Degree Requirements

1. A minimum of 27 credit hours of course work beyond the degree of Master of Science in Engineering or equivalent is required (excluding dissertation) with a minimum GPA of 3.00.
  - a. A minimum of 18 of these credits must be 700-level courses.
  - b. In addition to these course requirements, a dissertation consisting of at least 18 credits (CEE 799) is required.
2. A Doctoral Advisory Committee composed of at least five members of the UNLV graduate faculty is to be formed for the student. At least three of the committee members must be from tenured or tenure-track members of the Department of Civil and Environmental Engineering, the fourth from the Department of Civil and Environmental Engineering or a related field, and the fifth must be appointed by the Graduate College.
3. The student's Doctoral Advisory committee may add additional requirements in accordance with the individual's background and area of study.
4. Doctoral students who have not completed CEE 700, or equivalent, or did not write a thesis as part of their Master of Science studies, may be required to complete CEE 700 as a deficiency course. This course will not count towards their doctoral degree program.
5. Students whose mother tongue is not English must demonstrate a satisfactory command of the English language by passing the advanced level on the Michigan test during the first year of study.
6. In order to show breadth and depth of knowledge in his/her discipline, the doctoral student must pass either a written qualifying exam, an oral qualifying exam, or both as determined by the student's Doctoral Advisory Committee. These examinations are prepared by the faculty and supervised

by the GPC. These qualifying exams must be scheduled after the completion of one year of study but not before the completion of at least 12 credits of course work.

7. The doctoral student must pass a preliminary exam consisting of the preparation of a written proposal for the dissertation research followed by an oral defense of the proposal. The dissertation must be approved by the student's Doctoral Advisory Committee. Students are advanced to candidacy for the Ph.D. upon the completion of all course work and approval of the dissertation research proposal.
8. All requirements for the Ph.D. are met upon the satisfactory completion of the proposed research, the submission of a satisfactory dissertation, and the successful oral defense of the dissertation before the Doctoral Advisory Committee.

#### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## **Master of Science - Construction Management**

### **Plan Description**

The Master of Science degree in Construction Management provides graduate-level study for those seeking mid- and upper-level management positions in the construction industry or continued study for the doctorate. Students with degrees in construction management, engineering, science, architecture and business, as well as related disciplines are invited to apply. Applications for admission to the program are evaluated on an individual basis by the program's faculty.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Applicants are considered on an individual basis. Candidates can be admitted on a regular or provisional status. Qualified applicants who are not admitted on either status can take graduate courses as a non-degree student. A maximum of 15 credits taken as a UNLV non-degree graduate student may be applied toward the M.S.C.M. degree.

To be considered for admission:

1. Applicants must have an earned baccalaureate degree from a regionally accredited four-year college or university with preferred study in construction, engineering, architecture, business, or closely related area.
2. Overall undergraduate GPA should be at least 2.75 (4.00=A) for the bachelor's degree or at least 3.00 (4.00=A) for the last two years of undergraduate work.
3. Credit (in semester hours) must have been earned in the following subjects or their equivalents:

MATH 181 – Calculus I  
PHYS 151/151L – General Physics I  
CEM 250/250L – Construction Materials & Methods  
CEM 270 – Construction Engineering Mechanics

A course in construction or engineering graphics

The leveling courses required of a student before entering the M.S. program will be determined on an individual basis. The student will be notified in writing of any deficiencies prior to admission to the program. Students with deficiencies exceeding two courses may need to satisfactorily complete them before admission to the graduate program.

4. The applicant must obtain a satisfactory score on the Graduate Record Examination (GRE) as determined by the Graduate Program Committee (GPC).
5. Each applicant must submit to the program two letters of recommendation from individuals familiar with their knowledge, skills and abilities, and a one-page Statement of Objectives describing the reasons why they wish to earn a master's degree and indicating the area of concentration within the construction management discipline in which they wish to pursue graduate work.
6. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Thesis Track**

Total Credits Required: 30

### **Course Requirements**

#### **Required Courses – Credits: 13**

CEM 651 - Construction Estimating  
CEM 653 - Construction Scheduling and Resource Optimization  
CEM 700 - Research Methods in Construction Management  
MBA 775 - Data Modeling and Analysis

#### **Core Course – Credits: 3**

Complete one of the following courses:

CEM 750 - Advanced Construction Scheduling  
CEM 751 - Construction Cost Analysis and Estimating

#### **Specialty Course – Credits: 3**

Complete one of the following courses:

CEM 685 - Construction Law and Contracts  
CEM 740 - Construction Safety and Performance Improvement  
CEM 775 - Construction Operations and Management  
CEM 705 - Construction Engineering Management

#### **Elective Courses – Credits: 5**

Complete 5 credits of elective coursework.

#### **Thesis – Credits: 6**

CEM 797 - Research Thesis in Construction Engineering and Management

### **Degree Requirements**

1. Completion of at least 30 credits, comprised of 18 required 600/700-level credits of CEM and MBA course work, 6 credits of approved electives, and 6 credits of thesis research. The final examination will include a defense of the thesis.
2. MBA 775 and CEM 700 must be completed within the first two semesters of study.
3. Other courses may be substituted upon written permission of the student's graduate faculty advisor. Students who have credit in

CEM 451 and CEM 453 or equivalent courses will select two other courses from the approved elective list.

4. The thesis option program of study will be jointly developed by the student and advisor, approved by the student's advisory committee.
5. Student's pursuing the thesis option shall have an Advising Committee composed of at least four members of the UNLV Graduate Faculty of which at least two must be tenured or tenure-track members of the Construction Management Program, the third from the Construction Management Program or a related field, and the fourth must be appointed by the Graduate College.
6. Completion of a thesis requires the student to make a unique contribution to the existing knowledge in the field of construction management or engineering. The effort must include the development of a contemporary research topic and the methodology for investigating the topic. The student is required to undertake the research effort to investigate the topic. The thesis prepared as part of this option shall include a literature review, description of the research topic, methodology, and results, and present conclusions obtained from the research effort and recommendations for further work.
7. Each student's program should show suitable breadth and coherence, as specified in the Graduate Catalog. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.
8. Students must make satisfactory progress and comply with all Graduate College and Howard R. Hughes College of Engineering policies. If progress is not satisfactory, probation and separation from the graduate program may result, in accordance with the rules of the Graduate College. Satisfactory

progress is defined as filing an proposed graduate degree program before the completion of 16 credit hours of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00), no grades below C and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. Additionally, no more than nine credits below B are allowed in the student's graduate program. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have two semesters to raise it to 3.00 or above. Students who are awarded a graduate assistantship must be enrolled in a minimum of 6 credit hours per semester and must elect the thesis option.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 2 Requirements: Non-Thesis Track**

Total Credits Required: 36

#### Course Requirements

#### **Required Courses – Credits: 13**

CEM 651 - Construction Estimating  
CEM 653 - Construction Scheduling and Resource Optimization

CEM 700 - Research Methods in Construction Management

MBA 775 - Data Modeling and Analysis

**Core Course – Credits: 3**

Complete one of the following courses:

CEM 750 - Advanced Construction Scheduling

CEM 751 - Construction Cost Analysis and Estimating

**Specialty Course – Credits: 3**

Complete one of the following courses:

CEM 685 - Construction Law and Contracts

CEM 740 - Construction Safety and Performance Improvement

CEM 775 - Construction Operations and Management

CEM 705 - Construction Engineering Management

**Elective Courses – Credits: 14**

Complete 14 credits of advisor-approved elective coursework.

**Special Project – Credits: 3**

CEM 796 - Special Project in Construction Engineering and Management

**Degree Requirements**

1. Completion of at least 36 credits comprised of 18 required 600/700-level credits of CEM and MBA course work, 15 credits of approved electives of which nine credits must be 600/700-level credits of CEM.
2. MBA 775 and CEM 700 must be completed within the first two semesters of study.
3. Other courses may be substituted upon written permission of the student's graduate faculty advisor. Students who have credit in CEM 451 and CEM 453 or equivalent courses will select two other courses from the approved elective list.
4. The project option program of study will be jointly developed by the student and advisor.
5. Completion of a project requires the student to investigate and solve, or propose

solutions to, a problem related to the field of construction management. It is expected that the results of this effort will be beneficial for and applied to other construction-related projects or problems. The project report prepared for this option shall include a description of the issue investigated, how the investigation was performed, the results obtained, conclusions regarding the investigation, and recommendations for further work.

6. Each student's program should show suitable breadth and coherence, as specified in the Graduate Catalog. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.
7. Students must make satisfactory progress and comply with all Graduate College and Howard R. Hughes College of Engineering policies. If progress is not satisfactory, probation and separation from the graduate program may result, in accordance with the rules of the Graduate College. Satisfactory progress is defined as filing an proposed graduate degree program before the completion of 16 credit hours of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00), no grades below C and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. Additionally, no more than nine credits below B are allowed in the student's graduate program. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have two semesters to raise it to 3.00 or above. Students who are awarded a graduate assistantship must be enrolled in a minimum

of 6 credit hours per semester and must elect the thesis option.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Successfully complete a project.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

## Master of Science in Engineering - Civil and Environmental Engineering

### Plan Description

The Department of Civil and Environmental Engineering & Construction at UNLV offers a number of program degree options leading to the Master of Science in Engineering (M.S.E.) - Civil and Environmental Engineering. Specific areas of engineering that are currently available include Construction, Environmental, Geotechnical, Structural, Transportation, and Water Resources.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

In addition to the general requirements for admission to the Graduate College, an applicant for the M.S.E. program must:

1. Have a bachelor's degree in engineering or a closely related discipline. Applicants desiring to specialize in environmental engineering who have baccalaureate degrees in the natural sciences may require at least an additional semester of full-time study to complete engineering prerequisite undergraduate course work; this may include fluid mechanics, calculus through differential equations, engineering physics, chemistry and engineering economics. Successful environmental engineering applicants are expected to complete a set of graduate courses in engineering hydrology, hydraulics, statistics, water and wastewater treatment, and wastewater treatment plant design during their graduate study.
2. Submit a one page Statement of Objectives indicating the area of civil engineering in which they wish to pursue graduate work



and the reason they wish to earn a master's degree.

3. All applicants are required to take the verbal, quantitative, and analytical writing portions of the GRE General Test and submit the scores to the Civil and Environmental Engineering department. Successful applicants generally have a combined verbal and quantitative GRE score of at least 300 on the new test (1000 on all GRE exams taken before August 2011) and GRE analytical writing score of at least 3.
4. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

### **The Integrated BS-MS Program**

This program is designed to provide high-achieving CEE undergraduate students with the opportunity to be exposed to graduate courses and encourage them to continue with a graduate degree by reducing the time needed for degree completion. Up to six credit hours of approved graduate-level course work can be taken as technical electives for the grade of B or better during the senior year and those credit hours will be waived for the graduate degree. The following conditions are needed to enroll in this program:

1. A minimum of two semesters of full-time enrollment in B.S. of Civil and Environmental Engineering program at UNLV is required.
2. A minimum of 90 credit hours of course work applicable to the B.S. of Civil and Environmental Engineering degree must be completed before beginning the joint degree program.
3. An overall cumulative GPA of 3.30 or higher and a cumulative GPA in math/science/engineering of 3.50 or higher are needed to begin the joint degree program.

Once a student has been admitted into the Integrated BS-MS program, they must then submit an application for an M.S. program in Civil Engineering. The student has to follow the normal application procedures found on the UNLV Graduate College website.

1. Student must meet all the application deadlines.
2. Student should indicate in their application materials that they are participating in the Integrated BS-MS program.
3. Student should request a letter of nomination from a Civil and Environmental Engineering and Construction faculty member. Submit this letter along with a short resume (no more than 2 pages) to the main office of the Department of Civil and Environmental Engineering and Construction. The materials will be evaluated by three faculty members in the student's technical area of interest or nearby areas.
4. Student does not need to submit GRE scores.
5. Student must choose the thesis option.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

#Subplan 5 The Integrated BS-MS Track

### **Subplan 1 Requirements: Thesis Track**

Total Credits Required: 30

Course Requirements

### **Required Course – Credits: 3**

CEE 700 - Research Methods in Civil and Environmental Engineering

### **Elective Courses – Credits: 21**

Complete 21 credits of advisor-approved elective coursework.

### **Thesis – Credits: 6**

CEE 797 - Thesis in Civil Engineering

## Degree Requirements

1. Satisfactory completion of CEE 700 during the first year and 21 credits of approved graduate courses plus six credits of work associated with the master's level thesis, for a total of 30 credits. The final examination will include a defense of thesis.
2. At least 15 credits must be 700-level, of which at least 12 credits must be offered by the College of Engineering.
3. The program of study for each student must be approved by the student's advisory committee.
4. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00), no grades below C and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. Additionally, no more than nine credits below B are allowed in the student's graduate program. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
5. The student's Advising Committee should be composed of at least four members of the UNLV Graduate Faculty of which at least two must be tenured or tenure-track members of the Department of Civil and Environmental Engineering, the third from the Department of Civil and Environmental Engineering or a related field, and the fourth will be the Graduate College Representative. The Graduate College Representative must have Full Graduate Faculty Status and cannot have Graduate Faculty Status within the Department of Civil and Environmental Engineering.
6. Each student's program should show suitable breadth and coherence, as specified in the Graduate Catalog. Prior to filing, the

program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

## Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Subplan 2 Requirements: Non-Thesis Track

Total Credits Required: 33

## Course Requirements

### Required Courses – Credits: 33

Complete 33 credits of advisor-approved graduate coursework.

## Degree Requirements

1. Satisfactory completion of 33 credits of graduate courses approved by the student's advisory committee, of which at least 50 percent must be 700-level offered by the College of Engineering.
2. The program of study for each student must be approved by the student's advisory committee.
3. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of

3.00 (4.00), no grades below C and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. Additionally, no more than nine credits below B are allowed in the student's graduate program. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.

4. The student's Advising Committee should be composed of at least four members of the UNLV Graduate Faculty of which at least two must be tenured or tenure-track members of the Department of Civil and Environmental Engineering, the third from the Department of Civil and Environmental Engineering or a related field, and the fourth must be appointed by the Graduate College.
5. Each student's program should show suitable breadth and coherence, as specified in the Graduate Catalog. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

#### Graduation Requirements

The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

#### **Subplan 3 Requirements: Geographic Information Systems Thesis Track**

Total Credits Required: 30

Course Requirements

#### **Required Courses – Credits: 9**

CEE 668 - GIS Applications in Civil Engineering  
CS 733 - Geographic Data Base Systems  
STA 751 - Spatial Statistics

#### **Applied Concepts Course – Credits: 4**

Complete one of the following courses:

CEE 768 - Applied Geographic Information Systems  
EGG 768 - Applied Geographic Information Systems

#### **Statistics Course – Credits: 3**

Complete one of the following courses:

STA 667 - Introduction to Mathematical Statistics  
STA 691 - Statistics for Scientists I

#### **Research Course – Credits: 3**

CEE 700 - Research Methods in Civil and Environmental Engineering

#### **Elective Courses – Credits: 5**

Complete 5 credits of advisor-approved elective coursework.

#### **Thesis – Credits: 6**

CEE 797 - Thesis in Civil Engineering

#### Degree Requirements

1. The Geographic Information Systems Thesis track requires the satisfactory completion of CEE 700 during the first year, 17 credits of required coursework, 4 credits of approved graduate courses and six credits of work associated with the master's level thesis, for a total of 30 credits. The final examination will include a defense of thesis.
2. At least 15 credits must be 700-level, of which at least 12 credits must be offered by the College of Engineering.
3. The program of study for each student must be approved by the student's advisory committee.
4. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at

least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00), no grades below C and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. Additionally, no more than nine credits below B are allowed in the student's graduate program. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.

5. The student's Advising Committee should be composed of at least four members of the UNLV Graduate Faculty of which at least two must be tenured or tenure-track members of the Department of Civil and Environmental Engineering, the third from the Department of Civil and Environmental Engineering or a related field, and the fourth will be the Graduate College Representative. The Graduate College Representative must have Full Graduate Faculty Status and cannot have Graduate Faculty Status within the Department of Civil and Environmental Engineering.
6. Each student's program should show suitable breadth and coherence, as specified in the Graduate Catalog. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline.

The defense must be advertised and is open to the public.

3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 4 Requirements: Geographic Information Systems Non-Thesis Track**

Total Credits Required: 33  
Course Requirements

#### **Required Courses – Credits: 9**

CEE 668 - GIS Applications in Civil Engineering  
CS 733 - Geographic Data Base Systems  
STA 751 - Spatial Statistics

#### **Applied Concepts Course – Credits: 4**

Complete one of the following courses:

CEE 768 - Applied Geographic Information Systems  
EGG 768 - Applied Geographic Information Systems

#### **Statistics Course – Credits: 3**

Complete one of the following courses:

STA 667 - Introduction to Mathematical Statistics  
STA 691 - Statistics for Scientists I

#### **Elective Courses – Credits: 17**

Complete 17 credits of advisor-approved elective coursework.

#### Degree Requirements

1. The Geographic Information Systems Non-Thesis track requires satisfactory completion of 17 credits of required coursework and 16 credits of graduate courses approved by the student's advisory committee, of which at least 50 percent must be 700 level offered by the College of Engineering.
2. The program of study for each student must be approved by the student's advisory committee.

3. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00), no grades below C and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. Additionally, no more than nine credits below B are allowed in the student's graduate program. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
4. The student's Advising Committee should be composed of at least four members of the UNLV Graduate Faculty of which at least two must be tenured or tenure-track members of the Department of Civil and Environmental Engineering, the third from the Department of Civil and Environmental Engineering or a related field, and the fourth must be appointed by the Graduate College.
5. Each student's program should show suitable breadth and coherence, as specified in the Graduate Catalog. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

#### Graduation Requirements

The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

#### **Subplan 5: The Integrated BS-MS Track**

Total Credits Required: 24 – 30

#### BS Degree Requirements

1. Students must meet all of the existing B.S. degree requirements for Civil Engineering at UNLV.
2. Students may take up to 6 credits of approved graduate level courses in place of undergraduate courses. These classes would typically substitute for the undergraduate technical electives.
3. Undergraduates taking graduate courses will pay the graduate tuition for these courses.
4. Students will graduate with the BS degree as soon as all BS degree requirements are completed.

#### MS Degree Requirements

1. Students must meet all of the other degree requirements for the M.S. degree including a minimum 15 credits of "700" level courses. If a student takes a 3-credit "700" level course as part of their undergraduate degree; it will count towards the 15 credit minimum.
2. Students may be released from up to 6 credits of classes towards completion of the M.S. degree as long as their grades in these courses taken as part of the undergraduate program are a B- or better and their average G.P.A for these classes is a 3.0 or above.
3. Students must take the thesis option to receive the course release.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## Master of Science in Transportation

### **Plan Description**

The Master of Science in Transportation degree program is terminal in nature and oriented toward the practice of transportation science, with emphasis on the planning and operations aspects of transportation systems. It is intended for applicants who have backgrounds in areas other than engineering or closely related disciplines, and who either presently work for or aspire to work for transportation agencies or firms.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

To be considered for admission:

1. Applicants must have a Bachelor of Science or Bachelor of Arts degree. It is desirable to have a degree in one of the following areas: urban or regional planning, architecture, business, economics, public administration, quantitative geography, computer science, mathematics, operations research, statistics, political science, physical science, or similar discipline.
2. Undergraduate GPA must be at least 3.00 and credit must have been earned in the following subjects, or equivalent subjects, with a grade of B or better: MAT 180 (3 credits), PHY 155 (4 credits), computer Science or Management Information Systems (3 credits), ECO 201 or ECO 202 (3 credits), and STA 391 or ECO 261 (3 credits). CEE 362 (3 credits) also is required of applicants who have not had at least one year of acceptable experience with a transportation agency.
3. Submit a two-page Statement of Objectives indicating:

1. Previous work experience, particularly in transportation.
2. The reason they wish to pursue the M.S.T. program.
3. How the degree will be utilized following graduation.
4. Submit two letters of recommendation from individuals familiar with their skills and abilities. Contact the department for additional information.
5. Take the verbal, quantitative, and analytical writing portions of the GRE General Test and submit the scores to the Civil and Environmental Engineering department. Successful applicants generally have a combined verbal and quantitative GRE score of at least 300 on the new test (1000 on all GRE exams taken before August 2011) and GRE analytical writing score of at least 3.
6. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

The degree offered is a Master of Science in Transportation (M.S.T.). Completion of the degree does not qualify the student with a non-engineering background to sit for the Fundamentals of Engineering (FE) exam.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 33

Course Requirements

### **Required Courses – Credits: 6**

Complete two of the following courses:

CEE 609 - Engineering Project Management  
 CEE 663 - Traffic Engineering  
 CEE 760 - Transportation Planning  
 CEE 671 - Public Transportation Systems

### **Elective Courses – Credits: 24**

Complete 24 credits of advisor-approved elective coursework.

### **Project – Credits: 3**

CEE 796 - Design Project in Civil Engineering

### **Degree Requirements**

1. The program of study for each student must be approved by the student's advisory committee. The degree requires completion of 33 credits including a 3 credit project.
2. A minimum of 21 credits must be taken in civil engineering courses, and 12 credits may be taken from other departments.
3. The program is highly quantitative in nature and requires aptitude and familiarity with analytic and mathematical reasoning. Course work is rigorous, and students in the program will be taking the same courses offered to engineering students.
4. Satisfactory progress is defined as filing an approved program before the completion of 12 credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00), not grades below C and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. Additionally, no more than nine credits below B are allowed in the student's graduate program. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
5. The student's Advising Committee should be composed of at least four members of the UNLV Graduate Faculty of which at least two must be tenured or tenure track members of the Department of Civil and Environmental Engineering, the third from the Department of Civil and Environmental

Engineering or a related field, and the fourth must be appointed by the Graduate College.

### Plan Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Successfully complete a project.

### Civil and Environment Engineering & Constructions Courses

#### CEE 604 - Open Channel Flow

Detailed examination and design of open channel flow systems. Includes energy and momentum principles, non-uniform flow, transition design, design of channel controls, design of hydraulic structures, wave motions, unsteady flow, and flood routing.

**Notes** This course is crosslisted with CEE 404. Credit at the 600-level requires additional work.

#### CEE 606 - Hydrologic Analysis and Design

Modeling and analysis of hydrologic systems with application to engineering design. Includes rainfall-runoff analysis, dynamic flood routing, statistical theories, and stochastic processes.

**Notes** This course is crosslisted with CEE 406. Credit at the 600-level requires additional work.

#### CEE 607 - Computer Applications in Environmental and Water Resources Engineering

Credits 3

Application of computer models for analysis and design of environmental and water resource systems. Includes surface and groundwater hydrology, pipe networks, and water quality computer programs.

#### CEE 609 - Engineering Project Management

Engineering aspects of contracts, labor law, specification development, and cost estimating. Project scheduling and cost using critical path methods.

**Notes** This course is crosslisted with CEE 409. Credit at the 600-level requires additional work.

#### CEE 610 - Highway Construction Materials

Credits 3

Composition, properties, and production of Portland cement, concrete, bituminous materials, and bituminous mixtures.

**Notes** This course is crosslisted with CEE 410. Credit at the 600 level requires additional work.

#### CEE 612 - Advanced Mechanical Properties of Engineering Materials

Credits 3



This upper-division engineering course is open to graduate students, provided it demonstrates a level of accomplishment suitable to graduate study. The Undergraduate Catalog should be consulted for a description of the course. In the Undergraduate Catalog, the course is numbered as 4XX, where the XX represents the same last two digits as the 600 course listed (for example, the description for CEE 604 appears under CEE 404).

**Formerly** CEG 611

CEE 613 - Water Resources Engineering  
Credits 3

Hydraulic and hydrologic design of water distribution, stormwater, and wastewater collection systems. Introduction to groundwater hydrology. Pumps, pipe flow, and pipe networks. Hydraulic design of open channels, culverts, and sanitary sewers.

CEE 621 - Professional Engineering Practice

This upper-division engineering course is open to graduate students, provided it demonstrates a level of accomplishment suitable to graduate study. The Undergraduate Catalog should be consulted for a description of the course. In the Undergraduate Catalog, the course is numbered as 4XX, where the XX represents the same last two digits as the 600 course listed (for example, the description for CEE 604 appears under CEE 404).

CEE 632 - Geological Engineering  
Credits 3

Incorporation of geologic factors in civil engineering works. Engineering properties of rocks and soils; engineering implications of geologic structure and processes; geologic hazards; geologic/geotechnical site investigations, including engineering geophysics.

**Notes** This course is crosslisted with CEE 432. Credit at the 600-level requires additional work.

CEE 634 - Rock Mechanics  
Credits 3

Mechanical behavior of rock with engineering and geologic application; basic solid mechanics and rheology of rocks; rock testing; theories of failure; Griffith theory, McClintock-Walsh theory; scale effects and creep. Engineering applications in tunneling and dam foundations. Geologic applications in faulting, folding, isostasy, igneous

intrusion, and petroleum formation.

**Notes** This course is crosslisted with CEE 434. Credit at the 600-level requires additional work.

CEE 635 - Foundations Engineering  
Credits 3

Site investigations, footings, slope stability, rock and soil foundations, piles.

**Notes** This course is crosslisted with CEE 435. Credit at the 600-level requires additional work.

CEE 636 - Engineering Geophysics  
Credits 3

Introduction to geophysical methods used in shallow earth explorations for engineering purposes, such as site characterization and waste site investigations. Emphasis on seismic and electrical/electromagnetic methods. Laboratory experience includes hands-on use of state-of-the-art equipment. Appropriate for students in Civil Engineering, Geoscience, and Physics.

**Notes** This course is crosslisted with CEE 436. Credit at the 600-level requires additional work.

CEE 644 - Steel Structural Design  
Credits 3

Introduction to design of structural systems in steel; LRFD method. Design of tension members, beams, columns and beam-columns. Design of connections, welded and bolted. Introduction to torsion.

**Notes** This course is crosslisted with CEE 444. Credit at the 600-level requires additional work.

CEE 650 - Unit Operations/Processes in  
Environmental Engineering  
Credits 3

Water, wastewater system design overview. Water demand, wastewater generation. Water quality criteria. Mass balances, kinetics, reactor design. Coagulation, sedimentation, filtration, disinfection. Suspended, attached processes. Sludge and residual management. Measurements of solids, pH, alkalinity, hardness, DO, BOD, COD, SVI, turbidity, MPN, chlorine residual, nitrogen, phosphorus.

**Notes** This course is crosslisted with CEE 450. Credit at the 600-level requires additional work.

CEE 650L - Unit Operations/Processes Laboratory  
Credits 1

Instrumental and wet chemical laboratory methods

commonly used for characterization of water and wastewater. Measurements of solids, pH, alkalinity, hardness, dissolved oxygen, BOD, COD, SVI, turbidity, chlorine residual, MPN, nitrogen and phosphorus.

**Notes** This course is crosslisted with CEE 450L. Credit at the 600-level requires additional work.

CEE 651 - Water and Wastewater Quality Analysis  
Credits 3

Theory and analysis of the standard methods used by environmental engineers to analyze drinking, industrial, and domestic wastewaters to control water quality and monitor efficiency of treatment. Topics may include biological oxygen demand (BOD), chemical oxygen demand (COD), coagulation, carbon absorption, ion-exchange resins, solids analysis, analysis by atomic absorption spectrometry, alkalimetry anions and determination. Laboratory intensive course.

**Notes** This course is crosslisted with CEE 451. Credit at the 600-level requires additional work.

CEE 652 - Air Pollution Control Fundamentals  
Credits 3

Components of polluted air and air quality regulations. Control equipment material balances and process design for particulate removal. Combustion fundamentals and VOC removal. Meteorology and dispersion modeling. Automotive emissions controls.

**Notes** This course is crosslisted with CEE 452. Credit at the 600-level requires additional work.

CEE 654 - Solid and Hazardous Wastes Engineering  
Credits 3

Solid waste collection, separation and disposal. Recycling and containment technologies. Adsorption and microbial degradation. Thermal, radiation, and solidification methods for destruction of hazardous wastes. Site remediation.

**Notes** This course is crosslisted with CEE 454. Credit at the 600-level requires additional work.

CEE 655 - Chemical Processes for Water Quality Control  
Credits 3

This upper-division engineering course is open to graduate students, provided it demonstrates a level of accomplishment suitable to graduate study. The Undergraduate Catalog should be consulted for a

description of the course. In the Undergraduate Catalog, the course is numbered as 4XX, where the XX represents the same last two digits as the 600 course listed (for example, the description for CEE 604 appears under CEE 404).

CEE 661 - Introduction to Railroad Transportation  
Credits 3

This course will cover aspects in railway track, vehicle motion, signals and communications, railway track maintenance, railway operations, freight operations, and passenger train operations.

**Prerequisites** Consent of instructor.

CEE 662 - Railroad Engineering  
Credits 3

Design of major elements of railroad track, including track, subgrade materials, design and construction, construction costs and stability problems, drainage, ballast, cross ties, concrete and other artificial ties, rail, fastenings and other track material, track geometry, turnouts and crossings, track-train dynamics, conduct of work, and railroad right of way.

**Prerequisites** Consent of instructor.

CEE 663 - Traffic Engineering  
Credits 3

Studies in highway and traffic planning and principles of traffic operations.

**Notes** This course is crosslisted with CEE 463. Credit at the 600-level requires additional work.

CEE 664 - Airport Design  
Credits 3

Fundamental engineering principles in planning, location, design, and operation of airport facilities (terminals, apron areas, taxiways, and runways); ground access, drainage, aircraft characteristics and performance as they relate to airport design, aircraft noise and environmental considerations; elements of air traffic control.

**Notes** This course is crosslisted with CEE 464. Credit at the 600-level requires additional work.

CEE 665 - Fire Protection Engineering

This upper-division engineering course is open to graduate students, provided it demonstrates a level of accomplishment suitable to graduate study. The Undergraduate Catalog should be consulted for a description of the course. In the Undergraduate

Catalog, the course is numbered as 4XX, where the XX represents the same last two digits as the 600 course listed (for example, the description for CEE 604 appears under CEE 404).

**CEE 666 - Geometric Design of Highways**  
Credits 3

Design of visible elements of highways such as horizontal and vertical alignment and cross-section in accordance with design controls derived from characteristics of vehicles, drivers, traffic, and pedestrians interacting with geometry, terrain, and environment to yield a safe roadway at design capacity.

**Notes** This course is crosslisted with CEE 466. Credit at the 600-level requires additional work.

**CEE 667 - Computer Applications in Transportation Engineering**  
Credits 3

Application of computer software models and programs for solving planning, design, and operations problems in transportation engineering. Includes traffic network analysis models, transportation planning, and impact models.

**Notes** This course is crosslisted with CEE 467. Credit at the 600-level requires additional work.

**CEE 668 - GIS Applications in Civil Engineering**  
Credits 3

Introduction to the basics of Geographic Information Systems software and hardware and their use in civil engineering. Emphasis on the application of GIS for the planning, design, operations, and maintenance of civil engineering systems. Laboratory sessions provide hands-on experience with GIS software and hardware using specific examples/case studies of GIS applications in various areas of civil engineering.

**Notes** This course is crosslisted with CEE 468. Credit at the 600-level requires additional work.

**CEE 670 - High Speed Rail**  
Credits 3

This course covers high speed rail stations, tracks, traction and power, rolling stock, signals and communications, traffic organization, passenger service, and maintenance.

**Prerequisites** Consent of instructor.

**CEE 671 - Public Transportation Systems**  
Credits 3

Analysis and evaluation of mass transit systems; their operation and management: demand and cost analysis; route design, schedules and fare policy. Technology of transit systems including vehicles and structures. Transit financing. Impact on land use and environment.

**Formerly** CEE 765.

**Prerequisites** Consent of instructor.

**CEE 676 - Earthquake Engineering**  
Credits 3

Introduction to vibration theory; seismic hazards; spectra of vibrations. Application of UBC Simplified Static Method and Static Method. Introduction to design of earthquake resistant structures. Discussion of diaphragms, chords and struts.

**Formerly** CEG 681

**Notes** This course is crosslisted with CEE 476. Credit at the 600-level requires additional work.

**CEE 677 - Design of Underground Structures**  
Credits 3

Design of tunnels, shafts, and underground chambers in soil and hard rocks.

**Formerly** CEG 683

**Notes** This course is crosslisted with CEE 477. Credit at the 600-level requires additional work.

**CEE 678 - Applied Finite Element Analysis**  
Credits 3

Introduction to the finite element method with computer applications to engineering problems in structural analysis, two- and three-dimensional solid mechanics and continuum.

**Notes** This course is crosslisted with CEE 478. Credit at the 600-level requires additional work.

**CEE 680 - Concrete Design**  
Credits 3

Introduction to design of structural systems in concrete. Design of beams, one-way slabs, columns and beam-columns. Design of T-beams and doubly-reinforced beams. Anchorage and bar cutoffs.

**Formerly** CEG 643

**Notes** This course is crosslisted with CEE 480. Credit at the 600-level requires additional work.

CEE 682 - Design of Timber Structures

Credits 3

Determination of simple wind and seismic forces on one and two story structures. Discussion of engineering properties of wood. Introduction to the design of sawn beams for flexure, shear, bearing and deflection. Introduction to the design of axially loaded columns. Brief introduction to the design of trusses, diaphragms and shear walls.

**Formerly** CEG 648

**Notes** This course is crosslisted with CEE 482. Credit at the 600-level requires additional work.

CEE 695 - Special Topics

Credits 1-3

Outlet for experimental and other topics which may be of current interest.

**Notes** This course is crosslisted with CEE 495. Credit at the 600 level requires additional work.

Topics and credits to be announced. May have a laboratory.

May be repeated to a maximum of 9 credits.

CEE 700 - Research Methods in Civil and Environmental Engineering

Credits 3

Methods to improve and develop research skills and prepare students for professional careers at the graduate level. Includes principles of scientific research, ethics, writing skills, methods for compiling scientific literature, identification of research questions and specific hypotheses, presentation of research results, writing research papers, proposal preparation, preparation of grant proposals, thesis and dissertation.

CEE 703 - Turbulence

Credits 3

Topics include the origin of turbulence, dynamics of turbulent flows, free shear flows, bounded shear flows, transport phenomena, semiempirical theories, statistical descriptions, spectral dynamics.

**Prerequisites** ME 700 and Graduate standing.

CEE 704 - Environmental & Water Systems

Credits 3

Introduction to techniques to evaluating alternatives in environmental and water resources systems.

Topics include southwest U.S. water economic

analysis, optimization using linear and dynamic programming, systems modeling using STELLA, analysis of droughts, and current research topics. Applications focus on surface water systems, operation, and reservoirs, water distribution and environmental systems.

**Prerequisites** CEE 413

CEE 705 - Fluid Dynamics in Porous Media I

Credits 3

Engineering analysis of fluid flows in porous media. Includes development of the basic equations, analysis of steady and unsteady flows, multidimensional flows, analytical solutions using conformal mapping, analog methods, finite difference and finite element modeling, and transport phenomena.

**Prerequisites** ME 700 or consent of instructor.

CEE 706 - Fluid Dynamics in Porous Media II

Credits 3

Finite element solution of flow problems in porous media. Topics include steady and unsteady saturated flows, unsaturated flows, mass transport problems, and coupled transport problems such as combined mass-thermal flows.

**Prerequisites** ME 700 or consent of instructor.

CEE 708 - Hydraulic Transients

Credits 3

Analysis of unsteady fluid flow problems in liquid and gas transmission systems of practical interest. Emphasis placed on computer solutions. Topics include methods of characteristics, water-hammer, effect of pumps, turbines, valves, etc.; column separation; control of transient conditions; oscillatory flow and resonance; open channel transient flow.

**Prerequisites** Graduate standing or consent of instructor.

CEE 709 - Numerical Methods in Mechanics

Credits 3

Numerical solution of partial differential equations arising from problems in mechanics. Emphasis on finite difference techniques. Topics include classification of equations: solutions of elliptic, parabolic, and hyperbolic equations; stability, consistency and convergence and nonlinear equations; multidimensional problems; systems of equations; discontinuous solutions.

**Prerequisites** MATH 466 or ME 445 or consent of instructor.

CEE 711 - Continuum Mechanics

Credits 3

Matrices and tensors, stress deformation and flow, compatibility conditions, constitutive equations, field equations and boundary conditions in fluids and solids, applications in solid and fluid mechanics.

**Prerequisites** MATH 431 and graduate standing.

CEE 722 - Advanced Air Pollution Control

Credits 3

Fundamental chemical and physical principles of generation and control of air pollutants, and applications to pollution control equipment. Pollutant and particle formation during combustion. Gas absorption and absorption fundamentals and tower/column design. Pollution control strategies.

**Prerequisites** CEE 452/CEE 652, MATH 432, ME 311, or equivalents. Strongly recommended: ME 314 and MAT 665 or equivalents.

CEE 725 - Freight Transportation

Credits 3

This course covers freight, commodities, facilities and operations in the major modes of the transportation system and freight planning.

**Prerequisites** Consent of instructor.

CEE 726 - Railroad Operations

Credits 3

This course covers the dynamics of train movements, spacing trains, interlock principles, capacity, scheduling and control of railroad operations.

**Prerequisites** Consent of instructor.

CEE 731 - Pavement Materials and Design

Credits 3

In-depth study of pavement materials such as soils, asphaltic concrete and Portland cement concrete; analytical and empirical methods for design of flexible and rigid pavements; pavement rehabilitation management. Includes highway and airfield pavements.

**Prerequisites** CEE 334, CEE 334L, CEE 362

CEE 732 - Advanced Foundation Engineering

Credits 3

Detailed study and analysis of the mechanical

properties of soils with applications to foundation behavior.

**Prerequisites** CEE 334, CEE 334L, CEE 435

CEE 734 - Advanced Soil Mechanics

Credits 3

Stress-strain properties and shear strength of soil: settlements and stability analysis.

**Prerequisites** CEE 334, CEE 334L

CEE 735 - Earth Dams and Embankments

Credits 3

Principles governing the flow of water through soils and their applications to design of earth dams and embankments. Methods of earth dam design, including earthquake design, theory of wells, and groundwater flow.

**Prerequisites** CEE 334 and CEE 478/CEE 678

CEE 736 - Earth Slopes and Retaining Structures

Credits 3

Analysis and design of stable earth slopes, including slopes cut from natural deposits and engineered embankments. Analysis and design of earth retaining structures. Both theoretical and practical aspects of design discussed.

**Prerequisites** CEE 334, CEE 334L

CEE 737 - Soil Dynamics and Earthquake

Engineering

Credits 3

Use of dynamics in geotechnical engineering, for nondestructive characterization of engineering materials, and for design of foundations subjected to dynamic loads. Geotechnical aspects of earthquake engineering, particularly effect of soils on ground-surface motions, and soil liquefaction during earthquakes.

**Prerequisites** CEE 334, CEE 334L

CEE 741 - Design of Highway Bridge Structures

Credits 3

Review of types of highway bridges. Application of the AASHTO Bridge Specifications including dead load, live load and impact. Design of steel, reinforced and prestressed concrete bridge superstructures and their substructures. Span lengths through 150 feet.

**Prerequisites** CEE 444, CEE 480 and graduate standing.

CEE 743 - Design of Masonry Structures  
Credits 3

Study of the principles of masonry design applied to structural design of building components and retaining walls. Discussion of wind and seismic loadings. Analysis and design of shear walls.

**Prerequisites** CEE 480 and graduate standing.

CEE 744 - Design of Prestressed/Post-Tensioned Concrete Structures  
Credits 3

Study of principles of prestressed concrete, both pre-tensioned and post-tensioned, applied to structural design of buildings and bridges. Discussion of effects of lateral loads on structures. Introduction to analysis and design of shear walls. Discussion of connections between members.

**Prerequisites** CEE 480 and graduate standing.

CEE 745 - Advanced Topics in Concrete and Steel Structures  
Credits 3

Advanced theoretical analysis and design of reinforced concrete, prestressed and composite steel-concrete structures. Topics include beam torsion, stability of tall columns, local buckling effects, biaxially loaded columns, composite decks, ponding on steel roofs, and introduction to prestressed concrete structures.

**Prerequisites** CEE 480 or consent of instructor.

CEE 747 - Introduction to Analysis and Design of Plates and Shells  
Credits 3

Introduction to the analysis and design of plates and shell structures. Bending of flat rectangular and circular plates with various boundary and loading conditions. Membrane analysis of spherical, cylindrical shells, and shells of revolution with ring reinforcement.

**Prerequisites** CEE 381 and graduate standing.

CEE 748 - Advanced Design of Timber Structures  
Credits 3

Study of wood as an engineering material used in various types of construction. Strength properties of timber, structural properties of plywood, analysis and design of timber beams, timber columns, analysis and design of connections using nails, bolts, and adhesives.

**Prerequisites** MATH 431 and any one of CEE 444, 480 or 482.

CEE 749 - Advanced Topics in Finite Element Analysis  
Credits 3

Properties and applications of isoparametric elements, solids of revolution elements, plate bending elements, finite elements of dynamics, vibrations and buckling instability. Introduction to nonlinear problems using finite element analysis.

**Prerequisites** CEE 478 or consent of instructor.

CEE 750 - Urban Runoff Quality and Control  
Credits 3

Study of the quality of urban runoff during wet and dry periods. Topics include: review of hydrologic concepts, modeling water quantity and quality in stormwater systems, water quality of non-point sources, control structures or Best Management Practices (BMPs), evaluation of current research, discussion of current regulations.

**Prerequisites** CEE 413 and CEE 450 or consent of instructor.

CEE 751 - Advanced Topics in Wastewater Engineering  
Credits 3

Fundamentals of aeration and gas transfer, natural systems for effluent polishing, impacts of effluent discharges in natural water systems. Wastewater reuse issues. Sludge management including dewatering, conditioning, composting, and final disposal.

**Prerequisites** Graduate standing and CEE 450/CEE 650 or equivalent.

CEE 752 - Advanced Water and Wastewater Analysis  
Credits 3

Fundamentals and quantitative analysis or the standard methods used by environmental engineers to analyze drinking water and wastewater and control water quality. Topics include total organic carbon, solids analysis, alkalimetry, UV/VIS spectrophotometry, carbon absorption, ion exchange, AA spectrometry, ion chromatography (IC), phase partitioning, advanced oxidation.

**Prerequisites** CEE 451/CEE 651 and graduate standing, or consent of instructor.

CEE 753 - Air Pollution Atmospheric Processes  
Credits 3

Fundamentals of aerosol composition, formation and coagulation. Atmospheric photochemistry and atmospheric transport. Computer methods emphasized. Applications to pollution control strategies for urban areas.

**Prerequisites** CS 117, CEE 452/CEE 652 or equivalent, MATH 431.

CEE 754 - Biochemical Wastewater Treatment  
Fundamentals

Credits 3

Underlying chemical, microbiological, and biochemical principles considered when designing suspended and attached growth biological processes for water quality control. Topics covered include activated sludge design, selector design, filamentous growth control, toxicity to biological systems, biofilm processes, and design of nutrient (phosphorus and nitrogen) removal systems.

**Prerequisites** CEE 450/CEE 650 or equivalent.

CEE 755 - Advanced Physicochemical Methods for Water Treatment

Credits 3

Fundamentals of chemical equilibrium, ion exchange, chemical kinetics, gas transfer and absorption theory. Applications to design of water treatment facilities, including disinfection basins, ion exchange and activated carbon columns for treatment of water for drinking, agriculture, and industry.

**Prerequisites** CEE 455/CEE 655 and MATH 431 or equivalent.

CEE 756 - Advanced Waste Treatment Design  
Credits 3

Application of optimization methods to the physical, chemical, and biological reaction engineering principles used in air, water, and solid waste treatment plant design. Review and critique of plans for existing treatment works, and incorporation of new technologies. Waste minimization.

**Prerequisites** CEE 450/CEE 650 or CEE 455/CEE 655 or equivalent.

CEE 757 - Engineering Modeling of Natural Systems  
Credits 3

Application of physical, chemical, and ecological concepts to mathematical modelling of fluid mixing,

nutrient cycling and population dynamics.

Applications to waste treatment and impacts in natural water systems.

**Prerequisites** CS 117, CEE 450/CEE 650, MATH 431

CEE 758 - Air Quality Modeling

Credits 3

Data requirements for inputs to air quality models. Review of photochemical and transport processes used in models. Influence of local topography and meteorology. Review of photochemical computer models. Use of models in evaluation of strategies for improvement of air quality.

**Prerequisites** CEE 753 or equivalent; course in numerical methods recommended.

CEE 759 - Mass Transfer in Environmental Systems  
Credits 3

Fundamentals of mass transfer by diffusion and advection. Solutions to steady-state and transient problems in several dimensions. Applications to natural and engineered systems.

**Prerequisites** CEE 367, MATH 432, and ME 400/ME 600 or ME 700, or equivalent, or consent of instructor.

CEE 760 - Transportation Planning

Credits 3

Network representation methods; minimum-path trees; traffic assignment algorithms and their performance; trip distribution models; travel surveys and data needs; applications of statistical methods to develop methods of ownership, trip generation, vehicle occupancy, and model choice.

**Prerequisites** CEE 362 and graduate standing, or consent of instructor.

CEE 761 - Transportation Demand Analysis

Credits 3

Problems dealing with transportation-systems as they affect travel behavior; study of the demand for transportation theoretical concepts and analytical methods; urban and regional travel demand analysis, forecasting methods and behavioral demand models.

**Prerequisites** CEE 362 and graduate standing, or consent of instructor.

CEE 762 - Operations Research Applications in Civil Engineering

Credits 3

Analysis of civil engineering systems using operations research methods and techniques. Methods covered include optimization models in deterministic systems, network models, and modeling of stochastic systems, including queuing theory. Applications drawn from various civil engineering contexts, particularly transportation systems.

**Prerequisites** MATH 466 or STAT 411, or consent of instructor.

CEE 763 - Advanced Traffic Engineering

Credits 3

Theories of traffic flow and signal operations with application to activated, coordinated, and networked intersections using computerized models such as PASSER, NETSIM, TRANSYT, SOAP, CALSIG. Analysis of arterial/freeway operations techniques including HOV and reverse lanes, ramp metering, freeway surveillance, TSM, demand modification. Evaluation of objectives, measures of effectiveness.

**Notes** Two hours lecture, three hours laboratory.

**Prerequisites** CEE 463/CEE 663 or consent of instructor.

CEE 764 - Air Transportation

Credits 3

Nature of civil aviation, aviation system planning, airline operations, aircraft characteristics, airline economics, structure of the airline industry, aircraft fleet planning and scheduling, aviation safety.

**Prerequisites** CEE 362 and graduate standing, or consent of instructor.

CEE 766 - Analysis of Hazardous Materials

Transportation

Credits 3

Hazardous materials transportation analysis using probabilistic risk assessment, including concept measures, models, and methodologies; routing analysis including measures and models, background and scope of hazardous materials transportation issues; mitigation including engineering applications in risk management and emergency preparedness.

**Prerequisites** CEE 362 and graduate standing, or consent of instructor.

CEE 767 - Human Factors in Transportation

Engineering

Credits 3

Application of human factors to transportation system planning, design, operation, and management with emphasis on transportation safety; ergonomic principles; driver, vehicle, and guideway interaction; highway safety problems; human factors analytical methods; engineering and management solutions.

**Prerequisites** CEE 362, or consent of instructor.

CEE 768 - Applied Geographic Information Systems

Credits 4

Review of data structures and algorithms for surfaces, volumes and time, elevation models, spatial interpolation. Error modeling and data uncertainty. Visualization of spatial data. Decision making in a GIS context. Emphasis on interdisciplinary group project constructing a data base and maps involving several areas of expertise using popular GIS software.

**Same as** EGG 768

**Prerequisites** EGG 668, STA 751, and CS 733 or CS 432.

CEE 770 - Shell Structures, Bending and Membrane Theories

Credits 3

Analysis and design of curved thin shell structures using two methods: the approximate membrane force analysis and the exact bending moment and membrane force analysis combined. Introductions provided to the theory of elasticity and specialized solutions to partial differential equations as needed for the analysis of shell structures.

**Prerequisites** CEE 342 and graduate standing.

CEE 772 - Theory of Composite Structures

Credits 3

Analysis and design of structures using composite materials and sandwich construction. Elasticity and failure theories of fiber composites and laminates discussed, unidirectional, multidirectional and random fiber reinforcement considered.

**Prerequisites** CEE 381 and graduate standing.

CEE 774 - Introduction to Theory of Elasticity and Plasticity I

Credits 3

Introduction to theoretical and applied elasticity and plasticity theory-solutions to engineering problems in structural mechanics and geotechnical engineering. Response of isotropic, orthotropic and layered media



to applied stresses and strains.

**Prerequisites** MATH 431 and graduate standing only.

CEE 775 - Seismic Response of Structures  
Credits 3

Application of principles of vibration theory to structures. Determination of natural frequencies and mode shapes using classical methods and energy techniques. Response of structures to harmonic, impulse, periodic and earthquake loadings.

**Prerequisites** CEE 381 and graduate standing.

CEE 776 - Experimental Techniques in Structural Mechanics  
Credits 3

Application of various experimental techniques to stress analysis problems. Comparison of experimental and analytical methods. Theory of electric resistance strain gages. Brittle lacquer coatings and their photoelasticity and its application including photoelastic coatings. Introduction to similitude.

**Prerequisites** CEE 381 and graduate standing.

CEE 778 - Theory of Elastic Stability  
Credits 3

Buckling of centrally loaded and eccentrically loaded compression members. Variational methods of determining critical loads. Stability of rigid frame members, effective lengths of compression members in trusses, lateral buckling of beams, torsional buckling. Buckling of compressed rings and curved bars.

**Prerequisites** CEE 381 and graduate standing.

CEE 785 - Construction Engineering Management  
Credits 3

Concepts of construction project management of heavy civil, and capital facility projects. Covers the project phases: pre-project planning, engineering, procurement, construction and start up.

**Prerequisites** Graduate standing in civil engineering or consent of instructor.

CEE 791 - Independent Study in Civil Engineering  
Credits 1 – 3

Independent study of a selected civil engineering topic.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing in civil engineering and consent of instructor.

CEE 795 - Special Topics in Civil Engineering  
Credits 1 – 6

Outlet for experimental and other topics of current interest. Topics and credits to be announced.

**Notes** May have a laboratory. May be repeated for credit.

**Prerequisites** Graduate standing in civil engineering and consent of instructor.

CEE 796 - Design Project in Civil Engineering  
Credits 1 – 3

Synthesis course to involve students in the design process from analysis and proposal to solution.

**Notes** May be repeated to a maximum of three credits. Not permitted for students pursuing the M.S.E. Thesis option or for those in the Ph.D. Program.

**Prerequisites** Graduate standing in civil engineering and consent of instructor.

CEE 797 - Thesis in Civil Engineering  
Credits 3 – 6

**Notes** May be repeated but only six credits will be applied to program.

**Grading** S/F grading only.

**Prerequisites** Graduate standing in civil engineering.

CEE 799 - Dissertation Research  
Credits 1 – 6

Research analysis and writing towards completion of dissertation and subsequent defense.

**Notes** May be repeated with a maximum of 18 credits allowed to be used towards the degree.

**Grading** S/F grading only.

**Prerequisites** Graduate standing in Ph.D. program and consent of advisor.

CEM 632 - Temporary Construction Structures  
Credits 3

Analysis, design, and construction of temporary structures including formwork, falsework, shoring, rigging, and access units. Cost analysis. Computer analysis applications. Safety consideration.

**Notes** This course is crosslisted with CEM 432.

Credit at the 600-level requires additional work.

### CEM 651 - Construction Estimating

Credits 4

Principles and procedures used in estimating construction costs. Application of quantity determination, estimate pricing, specifications, subcontractor and supplier solicitation, risk assessment and risk analysis, and final bidding preparation. Computer-based estimating used for semester project.

**Notes** This course is crosslisted with CEM 451/CEM 451L. Credit at the 600 level requires additional work.

### CEM 653 - Construction Scheduling and Resource Optimization

Credits 3

Scheduling and resource optimization. Includes short-interval scheduling, Gantt charts, linear, and matrix scheduling formats. Network techniques including CPM and PERT concepts and calculations. Computer applications.

**Notes** This course is crosslisted with CEM 453/CEM 453L. Credit at the 600 level requires additional work.

### CEM 654 - Heavy Construction Equipment & Methods

Credits 3

Characteristics, capabilities, limitations, uses and selection of heavy construction equipment. Construction methods selection. Construction equipment process planning and improvement, fleet operations, and maintenance programs.

**Notes** This course is crosslisted with CEM 454. Credit at the 600-level requires additional work. Field Trips

### CEM 680 - Sustainable Construction

Credits 3

Overview of sustainable design and construction. Introduction to green buildings, LEED assessment process, high-performance building, and green building material. Economic analysis of green buildings.

**Notes** This course is crosslisted with CEM 480. Credit at the 600-level requires additional work.

**Prerequisites** Consent of instructor.

### CEM 685 - Construction Law and Contracts

Credits 3

Legal problems in the construction process.

Stipulated sum, unit price, and cost-plus contracts.

Construction lien rights and bond rights. Scope of work issues. Builders risk issues. Risk-shifting. Case studies.

**Notes** This course is crosslisted with CEM 485.

Credit at the 600-level requires additional work.

### CEM 693 - Independent Study

Credits 1-3

Independent study of a selected construction topic.

**Notes** This course is crosslisted with CEM 493.

Credit at the 600 level requires additional work.

### CEM 695 - Special Topics in Construction Management

Credits 1-4

Experimental and other topics which may be of current interest in construction management.

**Notes** This course is crosslisted with CEM 495.

Credit at the 600-level requires additional work.

### CEM 700 - Research Methods in Construction Management

Credits 3

Introduction to research process, design, measurement, sampling, analysis, and results, research information resources, and literature review.

**Corequisite** MBA 775 or STAT 463 or equivalent or consent of instructor.

### CEM 701 - Construction Seminar II

Credits 1

Presentations by students on research studies or projects. Presentations and discussions by local construction industry representatives on current construction engineering and management research and practice topics.

**Prerequisites** CEM 700

### CEM 705 - Construction Engineering Management

Credits 3

Technical project management applications for pre-project planning, design, pre-construction services, value engineering, construction, start up/commissioning and decommissioning of capital facilities.

**Corequisite** CEM 451/CEM 651 and CEM 451/CEM 653

CEM 740 - Construction Safety and Performance Improvement

Credits 3

Introduction to construction safety issues, regulations and ways to improve safety on the job site. Accidents and their causes, OSHA regulations, and worker safety programs. Productivity concepts, data collection, and analysis of data and factors affecting construction productivity. Means for improving production and study of productivity improvement programs.

**Prerequisites** CEE 381 or ABS 341, and graduate standing.

CEM 750 - Advanced Construction Scheduling

Credits 3

Models of network theory and non-network theory for construction scheduling. Systems theory, resource leveling and resource algorithms, project diagnostics, optimum workforce/equipment movement, and as-built schedule coordination. Cost control and computer applications, and expert systems. Case studies.

**Prerequisites** CEM 453/CEM 653 and graduate standing.

CEM 751 - Construction Cost Analysis and Estimating

Credits 3

Advanced topics in construction estimating including value engineering, pricing strategies, and computer concepts. Development of estimating data.

Computer-aided design and cost integration. Range, factor, and parametric estimating. Production factors.

**Prerequisites** CEM 451 or CEM 651 or consent of instructor.

CEM 755 - Renewable Energy Capital Facility Projects

Credits 3

Overview of control and management of the cost, timing, and value of capital-investment in renewable energy projects such as solar thermal power plants, photovoltaic plants, biomass power plants, biofuel power plants, hydroelectric power plants, geothermal power plants, tidal power station, wave power station and on-shore/off-shore wind power plants.

**Prerequisites** Graduate standing.

CEM 775 - Construction Operations and Management

Credits 3

Theory and practice of construction operations and management. Roles of the designer, owner, constructor, and construction manager. Systems approach to project, firm, and organization issues for construction management. Decision modeling. Readings, case studies, and analysis of construction problems and solutions. Computer applications, case studies.

**Notes** May be taken concurrently with CEM 751.

**Prerequisites** EGG 307, CEM 740, CEM 750, CEM 751

CEM 780 - Construction Engineering

Credits 3

Advanced topics in construction engineering addressing techniques and sequences employed in the construction of heavy and industrial projects.

**Prerequisites** CEE 334 or CEM 330, CEE 381 or CEM 370

CEM 793 - Advanced Independent Study

Credits 1 – 3

Advanced independent study of a selected construction topic. Paper required.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing and consent of instructor.

CEM 795 - Advanced Special Topics in Construction Management

Credits 1 – 6

Outlet for experimental and other topics of interest in advanced construction management. Paper required. Topics and credits to be announced.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing in major.

CEM 796 - Special Project in Construction Engineering and Management

Credits 1 – 3

Development and undertaking of a project investigating a topic of interest related to construction engineering or construction management.

**Notes** May be repeated for a maximum of three credits.

**Prerequisites** Graduate standing.

CEM 797 - Research Thesis in Construction  
Engineering and Management

Credits 1 – 3

Development and undertaking of a research study on a contemporary topic related to construction engineering or construction management. Preparation and presentation of a research thesis. Preparation of a project report.

**Notes** May be repeated for a maximum of six credits.

**Prerequisites** Graduate standing.

EGG 651 - Ergonomics

Credits 3

Design of the work environment to facilitate the safety of the worker and the improvement of work performance, with emphasis on the biomechanical requirements and musculoskeletal consequences of work activity.

**Notes** This course is crosslisted with EGG 451.

Credit at the 600-level requires additional work.

EGG 695 - Special Topics

Credits 3

This upper-division engineering course is open to graduate students, provided it demonstrates a level of accomplishment suitable to graduate study. The Undergraduate Catalog should be consulted for a description of the course. In the Undergraduate Catalog, the course is numbered as 4XX, where the XX represents the same last two digits as the 600 course listed (for example, the description for CEE 604 appears under CEE 404).

EGG 747 - Orthopedic Biomechanics - Lower  
Extremities and Spine

Credits 3

Biomechanics of the lower extremities and spine; engineering properties and physiology of bone, cartilage, and tendon; analysis of gait; effects of orthopedic impairment and injury; design and surgical implantation of prosthetic joints and fracture fixation devices; engineering of tissue regeneration and replacement.

**Same as** ME 747

**Prerequisites** Graduate standing in engineering or kinesiology or consent of instructor.

EGG 748 - Prosthetic Systems Engineering

Credits 3

Engineering design to prosthetic feet, ankles, knees,

and prehension devices; materials and manufacturing; the biomechanics of movement using a prosthesis; residual limb morphology and surgical enhancements; socket design and tissue response; myoelectric devices; microprocessor control; psychophysical and motor control considerations; aspects of clinical science. Emphasis on R&D needs.

**Same as** ME 748

**Prerequisites** Graduate standing in engineering or kinesiology or consent of instructor.

EGG 750 - Analysis of Human Movement

Credits 3

Analysis of the kinematics and kinetics of human movement in two and three dimensions with emphasis on methods used in motion capture, including joint and segment position; acceleration, velocity, force and torque; work and power; and inverse solution methods.

**Same as** ME 750

**Prerequisites** Graduate standing in engineering or kinesiology or consent of instructor.

EGG 768 - Applied Geographic Information Systems  
Credits 4

Review of data structures and algorithms for surfaces, volumes and time, elevation models, spatial interpolation. Error modelling and data uncertainty. Visualization of spatial data. Decision making in a GIS context. Emphasis on interdisciplinary group project constructing a data base and maps involving several areas of expertise using popular GIS software.

**Prerequisites** EGG 668, STA 751, and CS 733 or CS 432.

EGG 769 - Applied Modeling with Geographic  
Information Systems

Credits 3

Design and interfacing of civil engineering models of transportation and finite element, finite difference, and hydrologic models with geographic data base systems. Applications in general air, water, transportation, and land use management.

**Prerequisites** EGG 768

EGG 795 - Special Topics

Credits 3

Directed research course under the supervision of a member of the graduate faculty culminating in a

written paper.

**Notes** May be repeated twice with permission of instructor and advisor.

**Prerequisites** Graduate standing and permission of instructor.

## Computer Science

The School of Computer Science offers programs leading to the Master of Science and the Doctor of Philosophy degrees in Computer Science. Areas of school strength include both theoretical and experimental computer science, especially within such areas as information and network security, Internet forensics, real-time algorithms, information retrieval, document analysis, graphics, computational geometry, networking and distributed systems, parallel programming, artificial intelligence, and software engineering.

The distributed computing environment of the College of Engineering is housed in the Thomas T. Beam Engineering Complex. Several hundred modern computing systems are operated for purposes of instruction, experimentation, laboratory instrument control, data acquisition, and research. More than 50 of the systems are in public laboratories accessible to all Computer Science students. These laboratories contain both Windows and Unix/Linux clients and servers in a variety of modern configurations.

Students can also obtain permission to access the machines of the National Supercomputer Center for Energy and the Environment (NSCEE).

Laxmi Gewali, Ph.D., Chair

Ajoy Datta, Ph.D., Graduate Coordinator

## Computer Science Faculty

### Chair

**Gewali, Laxmi P.** - *Full Graduate Faculty*  
Professor; B.S., Gauhati University, India; M.S.,  
Tribhuwan University, Nepal; M.S., Ph.D.,  
University of Texas-Dallas. *Rebel since 1989.*

### Graduate Coordinator

**Datta, Ajoy K.** - *Full Graduate Faculty*  
Professor; B.S., M.S., Ph.D., Jadavpur University.  
*Rebel since 1988.*

### Graduate Faculty

**Bein, Wolfgang** - *Full Graduate Faculty*  
Professor; M.S., Ph.D., University of  
Osnabruck. *Rebel since 1998.*

**Berghel, Hal** - *Full Graduate Faculty*  
Professor; B.A., M.A., Ph.D., University of  
Nebraska, Lincoln. *Rebel since 1999.*

**Jo, Juyeon** - *Full Graduate Faculty*  
Associate Professor; B.S., Dongguk University,  
Korea; M.S., University of Connecticut; Ph.D., Case  
Western Reserve University. *Rebel since 2006.*

**Kim, Yoohwan** - *Full Graduate Faculty*  
Associate Professor; B.A., Seoul National University,  
Korea; M.S., Ph.D., Case Western Reserve  
University. *Rebel since 2004.*

**Larmore, Lawrence L.** - *Full Graduate Faculty*  
Professor; B.S., Tulane University; Ph.D.,  
Northwestern University; Ph.D., University of  
California, Irvine. *Rebel since 1994.*

**Minor, John T.** - *Full Graduate Faculty*  
Associate Professor; B.A., Rice University; Ph.D.,  
University of Texas, Austin. *Rebel since 1985.*

**Nartker, Thomas A.** - *Full Graduate Faculty*  
Professor Emeritus; B.S., University of Dayton;  
M.S., University of Tennessee; Ph.D., Texas A&M  
University. *Rebel since 1986.*

**Nasoz, Fatma** - *Full Graduate Faculty*  
Assistant Professor; B.S., Bogazici University;

M.Sc., University of Central Florida; Ph.D.,  
University of Central Florida. *Rebel since 2006.*

**Pedersen, Jan B.** - *Full Graduate Faculty*  
Associate Professor; B.S., M.S., University of  
Aarhus, Denmark; Ph.D., University of British  
Columbia. *Rebel since 2003.*

**Stefik, Andreas** - *Full Graduate Faculty*  
Assistant Professor; B.A., Central Washington  
University; M.S., Washington State University;  
Ph.D., Washington State University

**Taghva, Sidkazem** - *Full Graduate Faculty*  
Professor; B.S., Pahlavi University; M.S., University  
of Kansas; Ph.D., University of Iowa. *Rebel since  
1987.*

**Yfantis, Evangelos A.** - *Full Graduate Faculty*  
Professor; B.S., University of Athens; M.S., Fairleigh  
Dickinson University; M.S., Rutgers University;  
M.S., New Jersey Institute of Technology; Ph.D.,  
University of Wyoming. *Rebel since 1979.*

## Doctor of Philosophy - Computer Science

### Plan Description

The Ph.D. degree is awarded to a candidate who has demonstrated breadth of knowledge in computer science in general and has displayed depth of knowledge in the area of specialty as well as the ability to make original contributions to the body of knowledge in this field.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applicants for admission to the Ph.D. program in computer science must meet the following:

1. A GPA of 3.70 (on a 4.00 scale) or higher in post-baccalaureate course work is required for admission. Students entering with a bachelor's degree must have a GPA of 3.5 or higher for the courses at the 200-level or above.
2. Students are expected to have a master's degree in computer science before applying to the Ph.D. program. On rare occasions, an unusually capable student may be admitted to work directly for the Ph.D. degree without having a master's degree.
3. At least three letters of recommendation (preferably from academic sources) attesting to the applicant's professional competence and academic potential are required.
4. A personal statement of purpose, which should be as specific as possible and should include the applicant's objectives and area(s) of interest, is required.
5. A minimum score of 315 on the general test of the Graduate Record Examination (GRE) is required. Official score reports from the last five years are acceptable.
6. All domestic and international applicants must review and follow the Graduate

### College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

### Subplan 1 Requirements: Post-Master's Track

Total Credits Required: 48

Course Requirements

#### Required Courses – Credits: 30

Complete 30 credits of 600- or 700- level Computer Science (CS) courses.

#### Dissertation – Credits: 18

CS 799 - Dissertation Research

Degree Requirements

1. A student entering the Ph.D. program with a master's degree in computer science is required to take at least 48 credits of coursework.
2. At least 24 credits must be in computer science (excluding dissertation).
3. A minimum of 12 credits of 700-level Computer Science courses (excluding dissertation)
4. A maximum of 12 credits of 600-level Computer Science courses.
5. A maximum of 6 credits of 600/700 level non-Computer Science courses (with departmental approval).
6. Satisfactorily pass a written comprehensive examination within the first four semesters.
  - a. The written comprehensive examination will be given twice a year. The comprehensives will assess the student's breadth of knowledge through two

examinations covering the six Core Areas listed below and another examination in two other areas of his or her choice.

- b. Core Areas:
  - i. Automata and formal languages; Algorithms and data structures
  - ii. Programming languages; Compiler construction
  - iii. Computer architecture; Operating systems
- c. Application Areas:
  - i. Artificial intelligence
  - ii. Computer graphics and image processing
  - iii. Computer simulation and networks
  - iv. Data base systems
  - v. Software engineering and reliability
  - vi. Document analysis
  - vii. Networks and distributed computing
  - viii. Geometric applications
- d. The level of the examination is that of 600-level and 700-level courses in each area. A syllabus will be published well in advance of the exams listing the topics to be covered in each exam. Students are expected to take the comprehensive examination within two years of entering the Ph.D. program. All Ph.D. students are urged to take this examination as early as possible. Preference is given in the allocation of student financial support to those who have passed the comprehensive examination. The comprehensive examination may be attempted at most twice. Students who do not pass the comprehensive examination the first time must retake the examination at the next scheduled offering. Failure to pass the comprehensive examination after two attempts will normally lead to

dismissal from the Ph.D. program. After passing the comprehensive examination, a research topic of mutual interest to the student and his/her proposed committee is selected. At this point, the student formally begins his/her research study.

7. The qualifying examination is an oral examination designed to test the depth of the student's knowledge in his or her area of research specialization.
  - a. It must be taken before either:
    - i. Two years after passing the comprehensive examination or
    - ii. Four years after entering the Ph.D. program.
  - b. It generally focuses on his/her dissertation proposal. The main purpose of this exam is to evaluate the technical merits and feasibility of the student's proposal for his/her Ph.D. dissertation.
  - c. The student's Ph.D. committee must conduct the examination. This committee consists of five faculty members of whom one must be from outside the school of computer science. The student's advisor is the chairperson of this committee. Please see Graduate College policy for committee appointment guidelines.
  - d. The student must prepare a dissertation proposal before taking this examination. The student's advisor should have already approved this proposal. This proposal must be given to the Ph.D. committee members at least two weeks before the date of the qualifying exam. The proposal must contain a discussion of the background literature on the problem area, description of the specific topic of research proposal approach, feasibility arguments, the



- objective of the research project, and a list of references.
  - e. The student begins the exam with a presentation of the dissertation proposal. The remaining time is used for discussion and asking questions to determine if the student has sufficient depth of knowledge to carry out the proposed research.
  - f. The examination cannot be taken more than twice. After successful completion of the qualifying examination, the student is advanced to candidacy for the doctoral degree.
8. Satisfactorily pass a dissertation proposal defense by the end of year 4.
  9. The candidate must prepare a dissertation on his or her research. The doctoral dissertation should represent a significant original research contribution to the field of computer science and be publishable in a recognized refereed journal.
  10. After completion of the dissertation, the candidate must pass a final oral defense of his/her dissertation. The candidate must make the final changes, if any, in the dissertation within three months from the date of the oral defense. A candidate can defend the dissertation no more than twice. Each member of the committee must approve the final dissertation.
  11. Maintain a satisfactory rate of progress and a yearly progress report must be submitted. To maintain satisfactory progress in the Ph.D. program a student must:
    - a. Pass the comprehensive examination within 2.50 years of entering the Ph.D. program.
    - b. Maintain a minimum grade point average required by the College of Engineering.
    - c. Pass the qualifying examination within four years of entering the Ph.D. program.
    - d. Maintain satisfactory progress towards research.

- e. Students who enter the Ph.D. program with a master's degree must complete all requirements for the Ph.D. degree within six years. Those who enter the Ph.D. program with a bachelor's degree must complete all requirements for the Ph.D. degree within eight years. If these requirements are not met, the department may place the student on academic probation or drop him/her from the Ph.D. program.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 2 Requirements: Post-Bachelor's - No Master's/Ph.D. Only Track**

Total Credits Required: 72

#### Course Requirements

#### **Required Courses – Credits: 54**

Complete 54 credits of 600- or 700- level Computer Science (CS) courses.

#### **Dissertation – Credits: 18**

CS 799 - Dissertation Research

#### Degree Requirements

1. Complete a minimum of 72 credits of coursework with a minimum GPA of 3.00.
2. At least 42 credits must be in computer science (excluding dissertation).

3. A minimum of 24 credits of 700-level Computer Science courses (excluding dissertation)
4. A maximum of 12 credits of 600-level Computer Science courses.
5. A maximum of 6 credits of 600/700 level non-Computer Science courses (with departmental approval).
6. Satisfactorily pass a written comprehensive examination within the first four semesters.
  - a. The written comprehensive examination will be given twice a year. The comprehensives will assess the student's breadth of knowledge through two examinations covering the six Core Areas listed below and another examination in two other areas of his or her choice.
  - b. Core Areas:
    - i. Automata and formal languages; Algorithms and data structures
    - ii. Programming languages; Compiler construction
    - iii. Computer architecture; Operating systems
  - c. Application Areas:
    - i. Artificial intelligence
    - ii. Computer graphics and image processing
    - iii. Computer simulation and networks
    - iv. Data base systems
    - v. Software engineering and reliability
    - vi. Document analysis
    - vii. Networks and distributed computing
    - viii. Geometric applications
  - d. The level of the examination is that of 600-level and 700-level courses in each area. A syllabus will be published well in advance of the exams listing the topics to be covered in each exam. Students are expected to take the comprehensive examination within two years of entering the Ph.D. program. All

Ph.D. students are urged to take this examination as early as possible. Preference is given in the allocation of student financial support to those who have passed the comprehensive examination. The comprehensive examination may be attempted at most twice. Students who do not pass the comprehensive examination the first time must retake the examination at the next scheduled offering. Failure to pass the comprehensive examination after two attempts will normally lead to dismissal from the Ph.D. program. After passing the comprehensive examination, a research topic of mutual interest to the student and his/her proposed committee is selected. At this point, the student formally begins his/her research study.

7. The qualifying examination is an oral examination designed to test the depth of the student's knowledge in his or her area of research specialization.
  - a. It must be taken before either:
    - i. Two years after passing the comprehensive examination or
    - ii. Four years after entering the Ph.D. program.
  - b. It generally focuses on his/her dissertation proposal. The main purpose of this exam is to evaluate the technical merits and feasibility of the student's proposal for his/her Ph.D. dissertation.
  - c. The student's Ph.D. committee must conduct the examination. This committee consists of five faculty members of whom one must be from outside the school of computer science. The student's advisor is the chairperson of this committee. Please see Graduate College policy for committee appointment guidelines.

- d. The student must prepare a dissertation proposal before taking this examination. The student's advisor should have already approved this proposal. This proposal must be given to the Ph.D. committee members at least two weeks before the date of the qualifying exam. The proposal must contain a discussion of the background literature on the problem area, description of the specific topic of research proposal approach, feasibility arguments, the objective of the research project, and a list of references.
  - e. The student begins the exam with a presentation of the dissertation proposal. The remaining time is used for discussion and asking questions to determine if the student has sufficient depth of knowledge to carry out the proposed research.
  - f. The examination cannot be taken more than twice. After successful completion of the qualifying examination, the student is advanced to candidacy for the doctoral degree.
8. Satisfactorily pass a dissertation proposal defense by the end of year 4.
  9. The candidate must prepare a dissertation on his or her research. The doctoral dissertation should represent a significant original research contribution to the field of computer science and be publishable in a recognized refereed journal.
  10. After completion of the dissertation, the candidate must pass a final oral defense of his/her dissertation. The candidate must make the final changes, if any, in the dissertation within three months from the date of the oral defense. A candidate can defend the dissertation no more than twice. Each member of the committee must approve the final dissertation.
  11. Maintain a satisfactory rate of progress and a yearly progress report must be submitted.

To maintain satisfactory progress in the Ph.D. program a student must:

- a. Pass the comprehensive examination within 2.50 years of entering the Ph.D. program.
- b. Maintain a minimum grade point average required by the College of Engineering.
- c. Pass the qualifying examination within four years of entering the Ph.D. program.
- d. Maintain satisfactory progress towards research.
- e. Students who enter the Ph.D. program with a master's degree must complete all requirements for the Ph.D. degree within six years. Those who enter the Ph.D. program with a bachelor's degree must complete all requirements for the Ph.D. degree within eight years. If these requirements are not met, the department may place the student on academic probation or drop him/her from the Ph.D. program.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 3 Requirements: Post-Bachelor's - Thesis Track**

Total Credits Required: 72

#### Course Requirements

**Required Master's Courses – Credits: 24**

Complete 24 credits of 600- or 700- level Computer Science (CS) courses.

**Thesis – Credits: 6**

CS 791 - Thesis

**After successfully completing the requirements above, students are eligible to earn the Master of Science – Computer Science.**

**Required Doctoral Courses – Credits: 24**

Complete 24 credits of 600- or 700- level Computer Science (CS) courses

Dissertation – Credits: 18

CS 799 - Dissertation Research

**Degree Requirements**

1. Complete a minimum of 72 credits of coursework with a minimum GPA of 3.00.
2. At least 42 credits must be in computer science (excluding thesis & dissertation).
3. A minimum of 24 credits of 700-level Computer Science courses (excluding thesis & dissertation)
4. A maximum of 12 credits of 600-level Computer Science courses.
5. A maximum of 6 credits of 600/700 level non-Computer Science courses (with departmental approval).
6. The student must submit a thesis conforming to the specifications of the Graduate College and pass a final oral examination covering the thesis and relevant course work.
7. Satisfactorily pass a written comprehensive examination within the first four semesters.
  - a. The written comprehensive examination will be given twice a year. The comprehensives will assess the student's breadth of knowledge through two examinations covering the six Core Areas listed below and another examination in two other areas of his or her choice.
  - b. Core Areas:

- i. Automata and formal languages; Algorithms and data structures
- ii. Programming languages; Compiler construction
- iii. Computer architecture; Operating systems
- c. Application Areas:
  - i. Artificial intelligence
  - ii. Computer graphics and image processing
  - iii. Computer simulation and networks
  - iv. Data base systems
  - v. Software engineering and reliability
  - vi. Document analysis
  - vii. Networks and distributed computing
  - viii. Geometric applications
- d. The level of the examination is that of 600-level and 700-level courses in each area. A syllabus will be published well in advance of the exams listing the topics to be covered in each exam. Students are expected to take the comprehensive examination within two years of entering the Ph.D. program. All Ph.D. students are urged to take this examination as early as possible. Preference is given in the allocation of student financial support to those who have passed the comprehensive examination. The comprehensive examination may be attempted at most twice. Students who do not pass the comprehensive examination the first time must retake the examination at the next scheduled offering. Failure to pass the comprehensive examination after two attempts will normally lead to dismissal from the Ph.D. program. After passing the comprehensive examination, a research topic of mutual interest to the student and his/her proposed committee is

selected. At this point, the student formally begins his/her research study.

8. The qualifying examination is an oral examination designed to test the depth of the student's knowledge in his or her area of research specialization.
  - a. It must be taken before either:
    - i. Two years after passing the comprehensive examination or
    - ii. Four years after entering the Ph.D. program.
  - b. It generally focuses on his/her dissertation proposal. The main purpose of this exam is to evaluate the technical merits and feasibility of the student's proposal for his/her Ph.D. dissertation.
  - c. The student's Ph.D. committee must conduct the examination. This committee consists of five faculty members of whom one must be from outside the school of computer science. The student's advisor is the chairperson of this committee. Please see Graduate College policy for committee appointment guidelines.
  - d. The student must prepare a dissertation proposal before taking this examination. The student's advisor should have already approved this proposal. This proposal must be given to the Ph.D. committee members at least two weeks before the date of the qualifying exam. The proposal must contain a discussion of the background literature on the problem area, description of the specific topic of research proposal approach, feasibility arguments, the objective of the research project, and a list of references.
  - e. The student begins the exam with a presentation of the dissertation proposal. The remaining time is used for discussion and asking questions to determine if the student has sufficient depth of knowledge to carry out the proposed research.
  - f. The examination cannot be taken more than twice. After successful completion of the qualifying examination, the student is advanced to candidacy for the doctoral degree.
9. Satisfactorily pass a dissertation proposal defense by the end of year 4.
10. The candidate must prepare a dissertation on his or her research. The doctoral dissertation should represent a significant original research contribution to the field of computer science and be publishable in a recognized refereed journal.
11. After completion of the dissertation, the candidate must pass a final oral defense of his/her dissertation. The candidate must make the final changes, if any, in the dissertation within three months from the date of the oral defense. A candidate can defend the dissertation no more than twice. Each member of the committee must approve the final dissertation.
12. Maintain a satisfactory rate of progress and a yearly progress report must be submitted. To maintain satisfactory progress in the Ph.D. program a student must:
  - a. Pass the comprehensive examination within 2.50 years of entering the Ph.D. program.
  - b. Maintain a minimum grade point average required by the College of Engineering.
  - c. Pass the qualifying examination within four years of entering the Ph.D. program.
  - d. Maintain satisfactory progress towards research.
  - e. Students who enter the Ph.D. program with a master's degree must complete all requirements for the Ph.D. degree within six years. Those who enter the Ph.D. program with a bachelor's degree must complete all requirements for the

Ph.D. degree within eight years. If these requirements are not met, the department may place the student on academic probation or drop him/her from the Ph.D. program.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her master's degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
4. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her doctoral degree requirements.
5. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
6. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 4 Requirements: Post-Bachelor's - Project Track**

Total Credits Required: 72

#### Course Requirements

#### **Required Master's Courses – Credits: 27**

Complete 27 credits of 600- or 700- level Computer Science (CS) courses.

#### **Project – Credits: 3**

CS 790 - Master's Project

**After successfully completing the requirements above, students are eligible to earn the Master of Science – Computer Science.**

#### **Required Doctoral Courses – Credits: 24**

Complete 24 credits of 600- or 700- level Computer Science (CS) courses

#### **Dissertation – Credits: 18**

CS 799 - Dissertation Research

#### Degree Requirements

1. Complete a minimum of 72 credits of coursework with a minimum GPA of 3.00.
2. At least 42 credits must be in computer science (excluding dissertation).
3. A minimum of 24 credits of 700-level Computer Science courses (excluding dissertation)
4. A maximum of 12 credits of 600-level Computer Science courses.
5. A maximum of 6 credits of 600/700 level non-Computer Science courses (with departmental approval).
6. The student must complete a computer science project and a report approved by his/her advisor and pass a final oral examination over the project and relevant course work.
7. Satisfactorily pass a written comprehensive examination within the first four semesters.
  - a. The written comprehensive examination will be given twice a year. The comprehensives will assess the student's breadth of knowledge through two examinations covering the six Core Areas listed below and another examination in two other areas of his or her choice.
  - b. Core Areas:
    - i. Automata and formal languages; Algorithms and data structures

- ii. Programming languages;  
Compiler construction
  - iii. Computer architecture;  
Operating systems
  - c. Application Areas:
    - i. Artificial intelligence
    - ii. Computer graphics and  
image processing
    - iii. Computer simulation and  
networks
    - iv. Data base systems
    - v. Software engineering and  
reliability
    - vi. Document analysis
    - vii. Networks and distributed  
computing
    - viii. Geometric applications
  - d. The level of the examination is that of 600-level and 700-level courses in each area. A syllabus will be published well in advance of the exams listing the topics to be covered in each exam. Students are expected to take the comprehensive examination within two years of entering the Ph.D. program. All Ph.D. students are urged to take this examination as early as possible. Preference is given in the allocation of student financial support to those who have passed the comprehensive examination. The comprehensive examination may be attempted at most twice. Students who do not pass the comprehensive examination the first time must retake the examination at the next scheduled offering. Failure to pass the comprehensive examination after two attempts will normally lead to dismissal from the Ph.D. program. After passing the comprehensive examination, a research topic of mutual interest to the student and his/her proposed committee is selected. At this point, the student formally begins his/her research study.
8. The qualifying examination is an oral examination designed to test the depth of the student's knowledge in his or her area of research specialization.
    - a. It must be taken before either:
      - i. Two years after passing the comprehensive examination or
      - ii. Four years after entering the Ph.D. program.
    - b. It generally focuses on his/her dissertation proposal. The main purpose of this exam is to evaluate the technical merits and feasibility of the student's proposal for his/her Ph.D. dissertation.
    - c. The student's Ph.D. committee must conduct the examination. This committee consists of five faculty members of whom one must be from outside the school of computer science. The student's advisor is the chairperson of this committee. Please see Graduate College policy for committee appointment guidelines.
    - d. The student must prepare a dissertation proposal before taking this examination. The student's advisor should have already approved this proposal. This proposal must be given to the Ph.D. committee members at least two weeks before the date of the qualifying exam. The proposal must contain a discussion of the background literature on the problem area, description of the specific topic of research proposal approach, feasibility arguments, the objective of the research project, and a list of references.
    - e. The student begins the exam with a presentation of the dissertation proposal. The remaining time is used for discussion and asking questions to determine if the student has sufficient depth of

knowledge to carry out the proposed research.

- f. The examination cannot be taken more than twice. After successful completion of the qualifying examination, the student is advanced to candidacy for the doctoral degree.
9. Satisfactorily pass a dissertation proposal defense by the end of year 4.
10. The candidate must prepare a dissertation on his or her research. The doctoral dissertation should represent a significant original research contribution to the field of computer science and be publishable in a recognized refereed journal.
11. After completion of the dissertation, the candidate must pass a final oral defense of his/her dissertation. The candidate must make the final changes, if any, in the dissertation within three months from the date of the oral defense. A candidate can defend the dissertation no more than twice. Each member of the committee must approve the final dissertation.
12. Maintain a satisfactory rate of progress and a yearly progress report must be submitted. To maintain satisfactory progress in the Ph.D. program a student must:
  - a. Pass the comprehensive examination within 2.50 years of entering the Ph.D. program.
  - b. Maintain a minimum grade point average required by the College of Engineering.
  - c. Pass the qualifying examination within four years of entering the Ph.D. program.
  - d. Maintain satisfactory progress towards research.
  - e. Students who enter the Ph.D. program with a master's degree must complete all requirements for the Ph.D. degree within six years. Those who enter the Ph.D. program with a bachelor's degree must complete all requirements for the Ph.D. degree within eight years. If these requirements are not met, the

department may place the student on academic probation or drop him/her from the Ph.D. program.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the master's and doctoral portions of the program.
2. The student must successfully complete a master's project.
3. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
4. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*



## Master of Science in Computer Science

### Plan Description

Our master's program gives you the opportunity to study different areas, including:

- Design and analysis of algorithms
- Operating and distributed systems
- Computer architecture and networking
- Computational geometry and robotics
- Computer graphics and image processing
- Programming languages and compiler construction
- Artificial intelligence and expert systems
- Database design, document analysis, and retrieval
- Software engineering

**For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applicants must submit the following to the Graduate College:

1. An application and official transcripts of all college level work with a minimum GPA of 3.00.
2. Two letters of recommendation concerning the student's potential for succeeding in the graduate program.
3. Another set of official transcripts.
4. The results of the Graduate Record Examination current to within five years should be sent directly to the school.
5. In addition, applicants must have completed courses and their prerequisites equivalent to our undergraduate Programming Languages (CS 326), Operating Systems (CS 370), Discrete Mathematics II (MATH 351), and Statistical Methods I (STAT 411) with an average grade of B or better.

6. The Computer Science Admission Committee may elect to admit an outstanding applicant who has not satisfied all of the background requirements on a conditional basis.
7. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

The student must complete these requirements before full admission to the program is granted.

Students who have not completed all the following courses (or equivalent courses) as part of their bachelor's degree may be required to complete them as a condition of their admission. If taken as part of their master's degree program, these courses may count toward the 30 credits required.

CS 656 - Automata and Formal Languages

CS 677 - Analysis of Algorithms

CS 660 - Compiler Construction

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### Subplan 1 Requirements: Thesis Track

Total Credits Required: 30

Course Requirements

#### Computer Science Courses – Credits: 24

Complete 24 credits of 600- or 700- level Computer Science (CS) courses. Students may complete up to 3 credits outside of CS. Outside credits must be related to the student's research area and be approved by the school graduate committee.

#### Thesis – Credits: 6

CS 791 - Thesis

## Degree Requirements

1. The student must pass at least 30 credits of 600- and 700-level courses with grades of C or better.
2. Students must complete 12 credits of 700-level CS courses (excluding thesis).
3. Courses in which the student earns a grade lower than C cannot be included in his or her program, and the student's total grade point average (GPA) must be 3.00 or higher while in the program. A student whose GPA falls below 3.00 will be placed on academic probation. That student must have an overall GPA of at least 3.00 by the end of two subsequent semesters; otherwise the student will be separated from the graduate program. A student on probation will not be allowed to register for CS 690, CS 790, CS 791, CS 792, CS 799, or equivalent courses in another department.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. The student must submit a thesis conforming to the specifications of the Graduate College and pass a final oral examination covering the thesis and relevant course work.

## Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public. .
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved

electronic version to ProQuest by the posted deadline.

## Subplan 2 Requirements: Project Track

Total Credits Required: 30

### Course Requirements

#### Computer Science Courses – Credits: 27

Complete 27 credits of 600- or 700- level Computer Science (CS) courses. Students may complete up to 3 credits outside of CS. Outside credits must be related to the student's research area and be approved by the school graduate committee.

#### Project – Credits: 3

CS 790 - Master's Project

### Degree Requirements

1. The student must pass at least 30 credits of 600- and 700-level courses with grades of C or better.
2. Students must complete 15 credits of 700-level CS courses (excluding the project).
3. Courses in which the student earns a grade lower than C cannot be included in his or her program, and the student's total grade point average (GPA) must be 3.00 or higher while in the program. A student whose GPA falls below 3.00 will be placed on academic probation. That student must have an overall GPA of at least 3.00 by the end of two subsequent semesters; otherwise the student will be separated from the graduate program. A student on probation will not be allowed to register for CS 690, CS 790, CS 791, CS 792, CS 799, or equivalent courses in another department.
4. The student must complete a computer science project and a report approved by his/her advisor and pass a final oral examination over the project and relevant course work.

### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete a master's project.

### **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## **Computer Science Courses**

### **CS 617 - Introduction to Computer Simulation**

Credits 3

Simulation as a tool for the investigation of random phenomena. Emphasis on discrete simulation. Preparation of input for simulation and analysis of results. Use of SIMSCRIPT for discrete simulation. Comparison of discrete and continuous simulation. Simulation problems in several disciplines examined in detail.

**Notes** This course is crosslisted with CS 417. Credit at the 600-level requires additional work.

### **CS 620 - Human-Computer Interaction**

Credits 3

Overview of human-computer interaction principles, guidelines, methods, and tools. User research, low-fidelity prototyping, participatory design, usability evaluation, visual design, usability principles, and affordances. Graphical user interface implementation, including design patterns, event handling, widget tool kits, languages, and development environments.

**Notes** This course is crosslisted with CS 420. Credit at the 600-level requires additional work.

**Prerequisites** Consent of Instructor

### **CS 641 - Advanced Internet Programming**

Credits 2

Advanced Internet programming design and applications including client/server technologies and environment and software, client/server network operating systems, client/server database management systems, data warehousing environments, data mining, basic networking models and protocols, CASE tools, Groupware, Middleware, Internet security, privacy considerations.

**Notes** This course is crosslisted with CS 441. Credit at the 600-level requires additional work.

### **CS 641L - Advanced Internet Programming Lab**

Credits 1

Helps student develop practical skills and learn to apply industry-wide standards and practices for advanced Internet and Internet 2 applications.

**Notes** This course is crosslisted with CS 441L. Credit at the 600-level requires additional work.

### CS 643 - Information Assurance

Credits 3

Introduction to the principles of information assurance. Security awareness, Survey of information security technologies, cryptography, management and administration techniques necessary to improve information security and respond to a security breach, survey of threats to information security, privacy in computing, legal and ethical issues relating to information security, and case studies.

**Same as** CS 443

### CS 645 - Internet Security

Credits 3

Internet security theory and practice, advanced IP concepts, the concepts of stimulus and response in the context of securing a network, network packet and traffic analysis, internet protocol (IP) vulnerabilities, packet filtering, intrusion detection, internet exploits, exploit signatures, internet forensics, network security investigation.

**Notes** This course is crosslisted with CS 445. Credit at the 600-level requires additional work.

### CS 648 - Computer Security

Credits 3

Overview of computer security, threats, vulnerabilities and controls. Physical security, computer security policies and implementation plans, and computer forensics including penetration testing and investigation. Management issues. Legal, privacy and ethical issues.

**Notes** This course is crosslisted with CS 448. Credit at the 600-level requires additional work.

### CS 649 - Computer and Network Forensics

Credits 3

Basics of Computer Forensics and Network Forensics. How to protect your privacy on the internet: Email, obfuscation, web sites and servers. Encryption, data hiding, and hostile code. Investigating Windows and Unix. File system recovery/analysis and file management in different OSes. Technical and legal issues regarding digital evidence collection and forensics analysis. This course is crosslisted with CS 449. Credit at the 600-level requires additional work.

**Prerequisites** CS 645 or CS 648

### CS 651 - Multimedia Systems Design

Credits 2

Theory and practice of multimedia system design overview. High-level topics include multimedia content and formats, underlying technologies, digital cinematography, scripting, storyboarding, CD-ROM production and online publication, porting multimedia to the Web. Emphasis on the design process and the seamless integration of content in an interactive environment.

**Notes** This course is crosslisted with CS 451. Credit at the 600-level requires additional work.

### CS 651L - Multimedia Systems Design Lab

Credits 1

Helps student develop practical skills and learn to apply industry-wide standards and practices for the design of multimedia systems.

**Notes** This course is crosslisted with CS 451L. Credit at the 600-level requires additional work.

### CS 656 - Automata and Formal Languages

Credits 3

Regular expressions. Regular, context-free, and unrestricted grammars. Finite and pushdown automata. Turing machines and the halting problem; introduction to decidability.

**Notes** This course is crosslisted with CS 456. Credit at the 600-level requires additional work.

### CS 657 - Database Management Systems

Credits 3

Concepts and structures necessary for design and implementation of a database management system. Survey of current database management systems and use of a DBMS.

**Notes** This course is crosslisted with CS 457. Credit at the 600-level requires additional work.

### CS 660 - Compiler Construction

Credits 3

Current methods in the design and implementation of compilers. Construction of the components of an actual compiler as a term project.

**Notes** This course is crosslisted with CS 460. Credit at the 600-level requires additional work.

### CS 663 - Computer Architecture

Credits 3

Introduction to computer architecture. Topics include

basic computer organization concepts; history and taxonomy of computer architectures; language and software influences on architecture; instruction set design; stack, array, data flow, and database machines; multiprocessor and network architectures; and fault tolerant designs.

**Notes** This course is crosslisted with CS 463. Credit at the 600-level requires additional work.

#### CS 665 - Computer Networks I

Credits 3

An introduction to the design and implementation of computer communication networks, their protocols and applications. It covers the technologies and standards in data transmission, telecommunication networks, network architectures, networking hardware, wireless networks, and the basis of the Internet including UDP and TCP as well as a number of application protocols.

**Notes** This course is crosslisted with CS 465. Credit at the 600-level requires additional work.

**Prerequisites** CS 370

#### CS 666 - Computer Networks II

Credits 3

Explores advanced topics in computer networks, the protocols, algorithms, hardware, and performance issues, especially in TCP/IP networks. Details of IP routing algorithms, quality of service, protocol implementation issues, router architecture and types, various TCP versions and their performance, the related telecommunication networks, and wireless technologies are discussed.

**Notes** This course is crosslisted with CS 466. Credit at the 600-level requires additional work.

**Prerequisites** CS 665 or CS 465

#### CS 669 - Introduction to Digital Image Processing

Credits 3

Background and basics of digital image processing. Topics include: the human visual system, image representation, sampling, image mathematics, and geometry, image enhancement, smoothing and sharpening, the fast Fourier transform, and a survey of image restoration methods.

**Notes** This course is crosslisted with CS 469. Credit at the 600-level requires additional work.

**Prerequisites** MATH 365 and STAT 411 and CS 117 or CS 135

#### CS 670 - Networks and Distributed Systems

Credits 3

Explores protocols and experiments with creating and implementing new protocols. In addition, students will be introduced to concepts such as deadlocks in networks/distributed applications, communication in distributed systems (among other RPC/RMI and the client server model in more detail), synchronization, reliability, transparency, and atomicity/transaction semantics.

**Notes** This course is crosslisted with CS 470. Credit at the 600-level requires additional work.

#### CS 671 - Program Derivation

Credits 3

Introduction to the formal derivation of computer programs from program specifications. Review of the logical and notational prerequisites needed for formal derivation. Guarded commands and the predicate transformer WP. Developing loops from invariants. Program development via sequence of refinements.

**Notes** This course is crosslisted with CS 471. Credit

at the 600-level requires additional work.

#### CS 672 - Software Product Design and Development I

Credits 3

Current techniques in software design presented with emphasis on architecture first development.

Introduction to the processes involved in development. Practice architectural design through a series of homework problems. Students work in teams to prepare the architecture for a software product.

**Notes** This course is crosslisted with CS 672. Credit at the 600-level requires additional work.

**Prerequisites** CS 326 and CS 370

#### CS 673 - Software Product Design II

Credits 3

Synthesis (term project) course to involve students, working in teams, in all of the activities necessary to define, model, implement, test, document, and deliver a program product. Students practice Object-Oriented and Component Based development and utilize UML and CASE tools to model the product and document the process.

**Notes** This course is crosslisted with CS 473. Credit

at the 600-level requires additional work.

**Prerequisites** CS 672 or CS 472

CS 674 - Decision Environments for Software Product Development

Credits 3

Term project course to involve students, working in teams, with all of the activities and tools necessary to measure progress and monitor the development of a software product. Students utilize CASE tools for planning, for requirements management, for configuration management, for change management, and for product and process measurement for a product development project.

**Notes** This course is crosslisted with CS 474. Credit at the 600-level requires additional work.

**Prerequisites** CS 672 or CS 472

CS 677 - Analysis of Algorithms

Credits 3

Analysis of the time and space complexity of algorithms. Techniques for efficient algorithm design and effect of structure choice on efficiency. Fast algorithms for problems such as set, graph and matrix manipulations, pattern matching, sorting, and storage organization. Exponential time problems and introduction to NP-completeness.

**Notes** This course is crosslisted with CS 477. Credit at the 600-level requires additional work.

**Prerequisites** CS 302 and MATH 351

CS 680 - Computer Graphics

Credits 3

Graphics hardware, software and applications. Data structures for graphics, graphics languages, computer-aided design, and three-dimensional graphics.

**Notes** This course is crosslisted with CS 480. Credit at the 600-level requires additional work.

**Prerequisites** CS 302 and MATH 365

CS 682 - Artificial Intelligence

Credits 3

Survey of current artificial intelligence technologies: game playing, theorem-proving, natural language processing, pattern recognition, and heuristic programming.

**Notes** This course is cross listed with CS 482. Credit at the 600 level requires additional work.

**Prerequisites** CS 302 and PHIL 422

CS 689 - Advanced Computer Science Topics

Credits 3

Undergraduate-level course in advanced topics of computer science, depending upon the interest of faculty and students.

**Notes** This course is crosslisted with CS 489. Credit at the 600-level requires additional work.

CS 690 - Independent Study

Credits 1-3

Library research and reports on topics of computer science interest. May be repeated for credit with the consent of the Department of Computer Science

**Notes** This course is crosslisted with CS 490. Credit at the 600-level requires additional work.

CS 715 - Advanced Analysis of Algorithms

Credits 3

Analysis of the complexity and correctness of asymptotically efficient algorithms, including set partitioning, matrix multiplication, integer multiplication and pattern matching algorithms. The theory of NP-completeness; Cook's theorem and polynomial transformations. Basic NP-complete problems, such as the three-satisfactory, three dimensional matching and Hamiltonian circuit problems. PSPACE-completeness results, such as quantified Boolean formulas.

**Prerequisites** CS 656 and CS 677

CS 717 - Advanced Computer Simulation

Credits 3

Advanced discrete simulation modeling using SIMSCRIPT 11.5 and SLAM. Advanced continuous simulation using ACSL. Modeling concepts, measuring random phenomena. Passive objects, application of simulation to operating systems and software design in general. Digital- analog solution of linear differential equations, industrial dynamics. Feedback systems.

**Prerequisites** CS 617

CS 718 - Theory of Computation

Credits 3

Computability of functions and sets in terms of Turing machines and other computational models. Universal Turing machines and examples of unsolvable problems. Introduction to other computational models, such as the lambda-calculus, Post systems, Markov algorithms and recursive

function theory. The Church-Turing thesis and proofs of equivalence between the models.

**Prerequisites** CS 656

CS 719 - Advanced Automata and Formal Languages  
Credits 3

Extensive study of context-sensitive, recursive and recursively enumerable languages, including ambiguity and closure properties: decidable and undecidable properties of the different language classes: the halting problem and Post's correspondence problem; properties of the deterministic context-free languages; LR(k) and LL(k) grammars.

**Prerequisites** CS 656

CS 733 - Geographic Data Base Systems  
Credits 3

Spatial data types and operators: point queries, range queries, translation, rotation, and scaling. Data structures for object representation: arc tree, quadtrees. Commercial data bases vs. spatial data bases: relational, hierarchical, network.

**Notes** (May not be used to satisfy degree requirements in Computer Science.)

**Prerequisites** CS 135 or CS 117 or equivalent and STAT 611

CS 740 - Statistical Pattern Recognition  
Credits 3

Concepts and formal theoretical structures necessary for design and implementation of a pattern recognition system. Topics include: parametric and non-parametric methods, linear and non-linear classifiers and clustering algorithms.

**Prerequisites** STA 667, MATH 253 or 265, and CS 302

CS 741 - Structural Pattern Recognition  
Credits 3

Survey of advanced pattern recognition techniques. Topics include: graph matching methods, syntactic approaches, neural nets, and context-dependent methods.

**Prerequisites** CS 656 and CS 677

CS 742 - Document Image Understanding  
Credits 3

Survey of document understanding methods and related topics that include: data compression,

document exchange standards, layout analysis methods, logical analysis methods, OCR, error correction, and document routing.

**Prerequisites** CS 740 and CS 669

CS 747 - Cryptography and Information Theory  
Credits 3

Cryptography, cryptographic systems, encryption algorithms, cryptographic techniques, access control, lattice model of information flow, flow control mechanisms, inference control mechanisms, mechanisms restricting noise, mechanisms restricting statistics, statistical database models.

**Prerequisites** CS 370, STAT 411

CS 750 - Computational Algorithms in VLSI  
Credits 3

Application and inherent limitations of using VLSI to implement computational algorithms, design and analysis of algorithms for design of VLSI circuits, introduction to VLSI implementation of computational algorithms represented by logic circuits, lower bounds on area and time, systolic arrays and their applications, VLSI layout algorithms, VLSI test generation and simulation.

**Prerequisites** CS 677

CS 754 - Discrete Optimization  
Credits 3

Network optimization problems, use of advanced data structures. Topics may vary and include maximum-flow algorithms, multiterminal maximum flows, minimum cost flows and circulations, matching algorithms, approximation algorithms, and applications. Hamiltonian circuits in dense graphs, disjoint paths, the postman problem, introduction to combinatorial geometry, and linear programming.

**Prerequisites** CS 677

CS 756 - Formal Semantics  
Credits 3

Coverage of formal methods for defining the semantics of programming languages, including the operational, denotation and axiomatic approaches. Proof techniques for verifying properties of programs. Consistent and complementary definitions for a Pascal-like language discussed.

**Prerequisites** CS 326 and CS 656

CS 758 - Computational Geometry

Credits 3

Geometric searching, point location, range searching, convex hull, Graham's scan, gift wrapping, dynamic convex hull, proximity closest pair, Voronoi diagram, triangulation. Intersection, visibility shortest paths, geometry of rectangles.

**Prerequisites** CS 677

CS 763 - Advanced Computer Architecture

Credits 3

Advanced study of various current computer architectures. Examples taken from specialized architectures that support modern general-purpose programming, operating systems, artificial intelligence and data bases. SIMD and MIMD parallel architectures.

**Prerequisites** CS 326 and CS 663

CS 767 - Advanced Computer Graphics

Credits 3

Hidden line elimination algorithms and implementation. Perfect interpolators, cubic and bicubic splines, Kriging, Hermite surfaces, nonperfect interpolators, Bezier curves and surfaces, B-splines, ray tracing algorithms, shading, lightness, motion, moving pictures, two- and three- dimensional fractals. Special topics.

**Prerequisites** CS 680

CS 768 - Surface Estimation for Computer-Aided Geometric Design

Credits 3

Affine maps, function spaces, the DeCasteljau algorithm, Bernstein polynomials, Bezier surfaces, nonparametric curves, Lagrange polynomials, C continuity, B-spline basis, Frenet frame, G continuity, gamma splines, beta splines, geometric continuity, tensor product interpolants, volume deformations, curvatures.

**Prerequisites** CS 767

CS 769 - Advanced Data Base Management

Credits 3

Continuation of CS 632, including normalization of relational data bases using functional and multivalued dependencies. Query processing, query interpretation, query optimization, and methods for implementing and optimizing logic queries. Knowledge data bases,

distributed data bases and object-oriented data bases.

**Prerequisites** CS 657

CS 770 - Advanced Operating Systems

Credits 3

Study of the design principles, organization, and performance analysis of large-scale computer operating systems. Particular subjects emphasized include coordination of tasks, solutions of deadlock problems, theories of segmentation and paging, and performance prediction.

**Prerequisites** CS 370

CS 771 - Concurrent Computation

Credits 3

Study of concurrent programming methods and applications; event spaces; models of concurrency, such as Petri nets, CCS and CSP. Synchronization, data sharing and communication. Concurrency constructs in various programming languages. Scheduling and implementation techniques. Applications of concurrency in operating system design, fault-tolerance, and reliability.

**Prerequisites** CS 326 and CS 370.

CS 772 - Software Architecture

Credits 3

Survey of advanced techniques for specifying and designing large software systems. System verification. Reliability and project management.

**Prerequisites** CS 370, CS 672, and CS 660, or consent of instructor.

CS 777 - Parallel Algorithms

Credits 3

Methods for creating and analyzing parallel algorithms. Parallel programming languages and programming models of shared-memory and distributed architectures. Measuring complexity of parallel algorithms. NC-class versus P-class algorithms.

**Prerequisites** CS 677

CS 778 - Advanced Translation

Credits 3

Formal semantics, automatic compiler generation, attribute grammars. Language issues as they relate to compiler generation.

**Prerequisites** CS 660



CS 779 - Supercompilers for Parallel and Vector Computers

Credits 3

Dependence analysis, Diophantine equations, the GCD test, the Banerjee test, do-loop normalization, concurrency in loops, vector code generation, control dependence and vectorization, parallel code generation for doall-loops, parallel code generation for doacross-loops, shared memory parallelization, parallelization for distributed memory architectures.

**Prerequisites** CS 778

CS 780 - Distributed Computing and Algorithms

Credits 3

Methods and algorithms of distributed computing. Topics may include architecture and design goals, formal approaches to distributed computing problems, networks and protocols, models of distributed computing, synchronization and communication, synchronous and asynchronous systems, fault-tolerance and reliability, self-stabilization, distributed algorithms and applications.

**Prerequisites** CS 370, CS 677

CS 781 - Automated Deduction

Credits 3

Use of computers for forming deductions and proving theorems in symbolic logic covered. Topics include resolution, unification, proof strategies, and equality. Also examines areas of application: problem solving, question answering, program verification, automatic programming and logic programming (Prolog).

**Prerequisites** CS 682

CS 782 - Expert System Construction

Credits 3

Design, organization, and construction of expert systems. Includes general concepts, characteristics, elements, advantages, and examples of expert systems. Also rule-based knowledge representations, inference techniques, implementation tools and shells, and advanced topics.

**Prerequisites** CS 682

CS 783 - Genetic Algorithms and Neural Networks

Credits 3

A study of the utility of adaptive methods and their limitations across optimization problems spanning areas of engineering. Topics include genetic algorithms and genetic programming, simulated

annealing, tabu search, neural networks, artificial life. Use of software tools for implementations.

CS 785 - Computational Linguistics

Credits 3

Introduction to linguistics and computational linguistics, for natural language. Phonology, morphology, syntax, semantics, and lexicology. Text analysis and processing; construction of lexicons, and indexes and concordances. Introduction to text retrieval, translation, speech understanding and generation.

**Prerequisites** CS 656

CS 786 - Advanced Computational Linguistics

Credits 3

Advanced study of computational linguistics. Emphasis on cognitive methods in natural language understanding and generation. Pragmatics and discourse.

**Prerequisites** CS 785

CS 788 - Computational Environmetrics

Credits 3

Applications of sensor networks and pattern recognition to environmental problems. Geometric pattern recognition: metrics for comparing 2-d shapes, signature functions, turning functions. Geometric algorithms in sensor networks. Position based routing, face routing, broadcasting and multicasting. Interference aware sensor networks. Data gathering and target recognition. Prototype implementation.

**Prerequisites** Consent of instructor.

CS 789 - Topics in Advanced Computer Science

Credits 3

Graduate-level course in some field of computer science, at advanced level, depending upon the current interest of the staff and the students.

**Notes** May be repeated with a different subject matter to a maximum of nine credits.

**Prerequisites** Consent of instructor.

CS 790 - Master's Project

Credits 1 – 3

**Notes** May be repeated, but only three credits will be applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** Consent of instructor.

CS 791 - Thesis

Credits 3 – 6

**Notes** May be repeated, but only six credits will be applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** Consent of instructor.

CS 792 - Research Seminar

Credits 1

Oral presentation of assigned articles.

**Notes** May be repeated to a maximum of four credits.

**Prerequisites** Consent of instructor.

CS 799 - Dissertation Research

Credits 1 – 6

Research analysis and writing towards completion of dissertation and subsequent defense.

**Notes** May be repeated but no more than 18 credits will be allowed in the degree.

**Grading** S/F grading only.

**Prerequisites** Graduate standing in Ph.D. program and consent of advisor.

INF 730 - Human Computer Interaction

Credits 3

Covers the fundamental concepts and techniques for design, implementation, and evaluation of human computer interfaces. Topics include Foundations of Human computer interaction, design and implementation techniques for graphical user interfaces, evaluation techniques, and different interface models.

**Prerequisites** Consent of instructor.

INF 731 - Advanced HCI - Design and Implementation

Credits 3

This course is organized around readings that reinforce the student's knowledge in Human Computer Interaction guidelines, principles, and theories and mainly around projects that allow students to apply theoretical knowledge to the design, implementation, and evaluation of interactive computer systems.

**Prerequisites** INF 730

INF 732 - Affectively Intelligent Systems

Credits 3

Focuses on computational emotion modeling which spawns from a variety of interest: improving basic

understanding of the functional role of emotions in humans; integrating emotion recognition and prediction techniques; synthesizing emotion and expression of emotion to apply to synthetic characters, autonomous software agents or robots; understanding social implications of affective information and communication technology.

**Prerequisites** INF 700

INF 740 - Digital Media Design, Technology and Representation

Credits 3

Covers principles of design to visualize new media concepts in any medium. Exposes students to new and emerging digital media technologies and applications.

**Prerequisites** Consent of instructor.

INF 760 - Advanced Theoretical Foundations of Informatics

Credits 3

Advanced course to cover mathematical methods for information modeling, analysis, and manipulation. Requires various research article reading and discussions. Topics include proof techniques, first-order logic, computability theory, complexity theory, model theory, and statistics.

**Prerequisites** INF 700

INF 770 - Social Foundations of Informatics

Credits 3

Covers the relationships between social systems and information and communication technologies. Focuses on social factors that influence the organization of information technologies in social and organizational systems, and how the human social factors and technological tools mutually contribute to the field of Informatics. Prerequisite: Consent of instructor.

INF 780 - Special Topics in Informatics

Credits 3

Emphasis is on new developments and research in science, humanities, fine arts, and other domain informatics.

**Prerequisites** INF 700

INF 790 - Informatics Project

Credits 3

Advanced project in informatics.

**Notes** May be repeated for different project topics, but only three credits will be applied to the student's program.

**Prerequisites** INF 700 and consent of instructor.

INF 792 - Internship

Credits 3

Supervised internship in business, industry, government, or educational institution providing practical experience to use skills and knowledge acquired in informatics and cognate course work.

**Prerequisites** INF 700 and consent of instructor.

INF 794 - Research Methods

Credits 3

Examination of research methods including: the scientific method, sampling, statistics, research design, analytical technique, literature review, technical writing, professional ethics, faculty research areas and potential topics for thesis.

**Prerequisites** INF 700

INF 795 - Independent Study in Informatics

Credits 1-6

Supervised independent work in a topic of Informatics.

**Notes** May be repeated but no more than 6 credits will be allowed in the degree.

**Grading** S/F grading only

**Prerequisites** INF 700 and Instructor consent

INF 797 - Master's Thesis

Credits 1-6

Research analysis and writing towards completion of Master's thesis and subsequent defense.

**Notes** May be repeated but no more than 6 credits will be allowed in the degree.

**Grading** S/F grading only

**Prerequisites** INF 700 and Instructor consent

INF 799 - Dissertation Research

Credits 1 – 6

Research analysis and writing towards completion of dissertation and subsequent defense.

**Notes** May be repeated but no more than eighteen credits will be allowed in the degree.

**Prerequisites** Passing the written comprehensive examination.

## Electrical & Computer Engineering

Electrical engineering is the basic and applied research of scientific and mathematical principles to investigate, invent, develop, design, manufacture, and control of machines, processes, phenomena, and/or systems. The work of electrical engineers has had and continues to have a direct and vital impact on people's lives in the fields of environment, energy, defense, homeland security, data security, medicine, space exploration, safety, communication, biology and extending to all types of industrial and manufacturing issues. For example, electrical engineers have been responsible for the creation of electric power and signals at all frequencies and pulse repetition rates, modern electronics, computers, electronic communication systems, modern flight controllers, automated manufacturing, medical diagnostic tools. An electrical engineering education continues to provide opportunities for solving problems of great social significance and for augmenting the quality of life. The Department of Electrical and Computer Engineering at UNLV has excellent facilities for graduate education and research in electrical engineering. In addition, the Electrical and Computer Engineering faculty is experienced and knowledgeable in many of the electrical engineering disciplines, including communications, computer engineering, control system theory, electromagnetics and optics, electronics, power systems, signal processing, and solid state devices. At UNLV, students have the opportunity to interact effectively with faculty and personnel so that programs and research theses and dissertations can be tailored to their interests.

*Peter Stubberud, Ph.D., Chair*

*Robert Schill, Ph.D., Graduate Coordinator*

## Electrical and Computer Engineering Faculty

### Chair

**Stubberud, Peter** - Full Graduate Faculty Professor; B.S., M.S., Ph.D., University of California, Los Angeles. *Rebel since 1991.*

### Graduate Coordinator

**Schill Jr., Robert A.** - Full Graduate Faculty Professor; B.S.E.E., Milwaukee School of Engineering; M.S.E.E., Ph.D., University of Wisconsin-Madison. *Rebel since 1993.*

### Graduate Faculty

**Baker, R. Jacob** - Full Graduate Faculty Professor, B.S., M.S. University of Nevada Las Vegas, Ph.D. University of Nevada Reno. *Rebel since 2012.*

*Research Interests: Integrated circuit design*

**Baghzouz, Yahia** - Full Graduate Faculty Professor; B.S., M.S., Ph.D., Louisiana State University. *Rebel since 1987.*

*Research Interests: Power system harmonics/power quality; computer-aided analysis of electric power systems; solar photovoltaic systems; renewable energy integration with the utility grid.*

**Das, Biswajit** - Full Graduate Faculty Professor; B.S.E.E., Indian Institute of Technology, Kharagpur; M.S.E.E., Southern Illinois University, Ph.D., Purdue University. *Rebel since 2003.*

*Research Interests: Nanotechnology, Nanoscale device fabrication and characterization, Biomedical applications of nanotechnology, Sensors and sensor networks, RF Circuit Design.*

**Harris, Sarah** - Full Graduate Faculty Associate Professor; B.S., Brigham Young University; M.S., Ph.D. Stanford University *Rebel since 2014.*

*Research Interests: Digital design, computer architecture, embedded systems, informatics.*

**Jiang, Yingtao** - Full Graduate Faculty Professor; B.E., Chongqing University; M.S.E.C.E.,

Concordia University, Montreal; Ph.D., University of Texas at Dallas. *Rebel since 2001.*

*Research Interests: Algorithms, VLSI architectures, and circuit level techniques for the design of DSP, networking and telecommunications systems; computer architectures; computer aided designs; biomedical signal processing, instrumentation, and medical informatics; BioMEMS/BioNEMS; wireless communications and security.*

**Kachroo, Pushkin** - Full Graduate Faculty Professor; B. Tech (Civil Eng), Indian Institute of Technology; MSME, Rice University; Ph.D. University of California at Berkeley, Ph.D. Virginia Polytechnic Institute. *Rebel since 2008.*

*Research Interests: Nonlinear and hybrid control systems, intelligent transportation systems, mechatronics, robotics, distributed parameter systems, differential geometric methods, feedback control in e-marketing, and education and learning, bio-dynamics and control, nano-bio transport control and robotics.*

**Latifi, Shahram** - Full Graduate Faculty Professor; B.S., M.S., Teheran University; M.S., Ph.D., Louisiana State University. *Rebel since 1989.*

*Research Interests: Computer networks, parallel processing, fault-tolerant computing, data compression.*

**Morris, Brendan** - Full Graduate Faculty Assistant Professor; B.S., University of California, Berkeley; Ph.D., University of California, San Diego. *Rebel since 2001.*

*Research Interests: Intelligent systems, computer vision, pattern recognition, machine learning, intelligent transportation systems, and intelligent vehicles.*

**Muthukumar, Venkatesan** - Full Graduate Faculty Associate Professor; B.S.E.E., Anna University India; M.S.E.E., Ph.D., Monash University, Australia. *Rebel since 2001.*

*Research Interests: Embedded systems, high performance computation on FPGAs, network and system on chips, multi-core and microprocessor systems.*

**Regentova, Emma** - Full Graduate Faculty Professor; M.S.C.E., Ph.D., State Engineering

University of Armenia. *Rebel since 2001.*  
*Research Interests: Classical and applied image processing, image analysis, coding and compression, pattern recognition. Advanced Computer Architectures. Computer Networks.*

**Saberinia, Ebrahim** - Full Graduate Faculty  
Associate Professor; B.S.E.E., M.S.E.E., Sharif University of Technology; Ph.D., University of Minnesota. *Rebel since 2004.*  
*Research Interests: Communications; Wireless communication systems and networks; Wireless local, personal and sensor area networks.*

**Schill, Robert A.** - Full Graduate Faculty  
Professor; B.S.E.E., Milwaukee School of Engineering; M.S.E.E., Ph.D., University of Wisconsin-Madison. *Rebel since 1993.*  
*Research Interests: Charged particle beams; microwave theory; fiber, traditional and modern optics; plasma physics; electromagnetic fields and material interactions; linear and nonlinear waves; pulsed power; biomedical and environmental applications of electromagnetics and pulse power.*

**Selvaraj, Henry** - Full Graduate Faculty  
Professor; M.S., Ph.D., Warsaw University of Technology. *Rebel since 1994.*  
*Research Interests: Digital circuit design; programmable logic devices; logic synthesis; application of logic synthesis techniques in machine learning; data compression and data mining, functional decomposition; PLAs; and FPGAs; multiple valued functions and applications; artificial intelligence and multimedia; microprocessor architecture; and DSP.*

**Singh, Sahjendra N.** - Full Graduate Faculty  
Professor; B.S., Patna University; M.E., Indian Institute of Science; Ph.D., The Johns Hopkins University. *Rebel since 1986.*  
*Research Interests: Systems and Control Theory. Robotics. Applications to Aerospace Stability and Control. Fluid Flow Control.*

**Stubberud, Peter** - Full Graduate Faculty  
Professor; B.S., M.S., Ph.D., University of California, Los Angeles. *Rebel since 1991.*  
*Research Interests: Digital Signal Processing, multidimensional digital signal processing, adaptive*

*signal processing, neural networks, mixed signal VLSI design, data converters.*

**Sun, Ke-Xun** - Full Graduate Faculty  
Professor; B.S., Peking (Beijing) University; M.S., Nagoya University; Ph.D., Massachusetts Institute of Technology. *Rebel since 2012.*  
*Research Interests: Security science and engineering, radiation hard III-V semiconductor and devices, micro and nano technology, radiation detection and measurement, ultrafast electronics, optics and nonlinear optical devices, HEDP diagnostics systems, space flight and payload instruments, scientific computing, and image analysis.*

**Venkat, Rama** - Full Graduate Faculty  
Professor; B.Tech., Indian Institute of Technology; M.S., Ph.D., Purdue University. *Rebel since 1989.*  
*Research Interests: Electronic Materials and Devices, Device Physics and Modeling and Process Physics and Modeling.*

**Yang, Mei** - Full Graduate Faculty  
Associate Professor; B.E.C.E., M.E.C.E., University of Electronic Science and Technology of China; Ph.D., University of Texas at Dallas. *Rebel since 2004.*  
*Research Interests: Computer architectures, computer networks, wireless sensor networks, and embedded systems.*

### Professors Emeriti

**Brogan, William L.**  
Emeritus Professor; B.S.M.E., State University of Iowa; M.S., Ph.D., University of California, Los Angeles. *UNLV Emeritus 1990-1998.*

**McGaugh, Eugene E.**  
Emeritus Professor; B.S., University of Kansas; M.S., University of Missouri; Ph.D., University of Kansas. *UNLV Emeritus 1989-2010.*

## Doctor of Philosophy - Electrical Engineering

### Plan Description

The culminating experience in the Ph.D. program in the Department of Electrical and Computer Engineering is centered about developing new knowledge focused around a specific theme embodied in the form a well-written and orally defended dissertation. The Department of Electrical and Computer Engineering at UNLV offers a number of program options leading to the Ph.D. degree in the Field of Electrical Engineering. Specific major areas of study currently available include:

Communications, Computer Engineering, Control System Theory, Electromagnetics and Optics, Electronics, Power Systems, Signal Processing, and Solid State Materials and Devices.

Applicants may be admitted to the Electrical Engineering Ph.D Program through one of the following three options: the Post-Master's Track, the Post-Bachelor's Track, or the Post-Bachelor's Integrated BS-PHD Track. The Post-Master's Track requires the student to have completed a M.S. Degree in Electrical Engineering, Computer Engineering, or a closely related field with thesis before entering the program.

The Post-Bachelor's Track allows undergraduates with outstanding undergraduate backgrounds to enter the Ph.D. program without having to complete a M.S. Degree in Electrical or Computer Engineering. The Post-Bachelor's Integrated BS-PHD Track allows students who applied up to 9 credits of graduate courses towards their B.S. degrees to complete their Ph.D. in engineering with up to 9 fewer credits than students in the Post-Bachelor's Track. All requirements leading to a Ph.D. are still required beyond the B.S. Degree in Electrical and Computer Engineering excluding the completion of a Master's thesis. In conjunction with these options, a dual degree option does exist for candidates simultaneously working towards a Ph.D. degree in Electrical Engineering and a Master of Science degree in Mathematics. This program prepares graduate students with complementing educational components covering electrical engineering and mathematics, which is the basis of all engineering.

[Refer to the Dual Degree Doctor of Philosophy – Electrical Engineering and Master of Science – Mathematical Sciences program description.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applicants are considered on an individual basis. Applicants may be admitted as a regular or provisional status student. Qualified applicants who are not admitted can take graduate courses as a non-degree seeking graduate student. Up to 15 UNLV credits taken as a non-degree seeking graduate student at UNLV can be applied towards a PhD degree program in electrical and computer engineering. Potentially, nine graduate credits taken at another regionally accredited university may be transferred in the PhD degree program at UNLV. At most, only 15 credits of a combination of UNLV and non-UNLV course credits, within the constraints above, may be applied to the PhD program. Courses with a grade less than B (3.0) will not be applied to the PhD program. Further, the courses must not have been or will be applied to different degree program. Note that informal course credits will not be transferred into a PhD degree program. Informal courses such as Graduate Independent Study and Seminar taken as a non-degree seeking student cannot be applied towards a program degree in ECE. Non-degree seeking students can count Electrical & Computer Engineering Graduate Special Topics towards the program degree as long as they adhere to the conditions of the particular program option regarding informal course credits.

To be considered for admission an applicant must:

1. Submit GRE scaled and percentile scores in quantitative, verbal reasoning, and analytical writing to the Department of Electrical and Computer Engineering and have obtained the following minimum relative percentile comparison rank of 75 in the Quantitative

section, 20 in the Verbal Reasoning section, and 20 in Analytical Writing. Please note that GRE scores will only be considered valid if taken within five years prior to the time of admission and are recognized by the GRE examination board. Official scores must be obtained from an official GRE provider. The GRE requirement can be waived under the circumstances listed in the GRE Waiver section.

2. Submit a completed application form and official transcripts of all college level work to the Graduate College. Submit an additional set of transcripts of all college-level work directly to the Department of Electrical and Computer Engineering.
3. Submit a one page written statement of purpose indicating the applicant's interests, motivations, and objectives. In the statement of purpose, the applicant must explicitly identify his/her areas of interest from the following list of areas offered at UNLV in the ECE Department: Communications, Computer Engineering, Control Systems, Electromagnetics and Optics, Electronics, Power Systems, Signal Processing, and Solid State Materials and Devices (which includes Nanotechnology). Applicants are required to account for all time beyond the B.S. degree indicating how they have developed professionally. Applicants transferring from other graduate programs without obtaining an M.S. degree must justify why they are leaving that program to join our graduate program. Applicants receiving grades less than B in a graduate course elsewhere may not be admitted to the graduate program without a well justified explanation. Poor performance in course work in the program that the student is transferring from can be a cause for denial of admission. It will be the graduate committee's discretion whether to allow or deny admission.
4. Submit three letters of recommendation (signed and dated) concerning the applicant's potential for succeeding in the graduate program directly to the Department of Electrical and Computer Engineering.

Letters of reference may be electronically uploaded in the online admissions application process. If the student received a M.S. degree in electrical or computer engineering at UNLV, then only one letter of recommendation is required, and it must come from the candidate's faculty advisor who should be the student's thesis committee chair. If the applicant has attended a university or is currently enrolled in a program beyond the M.S. degree, then at least one letter of recommendation should be solicited from that university or program and two from the university in which the M.S. degree was received. One of the three letters should be written by your thesis advisor commenting on your background and your thesis research. If the applicant has been out of school for an extended period of time, then letters should be solicited from the professional community who can comment on the applicant's technical background and/or from the applicant's most recent academic institution. Letters of recommendation written beyond a six-month period prior to applying for admission to our graduate program will not be accepted. Strong letters of recommendation illustrate technical talent and professional accomplishments beyond the grade point average or course grade. The graduate committee is interested in the applicant's technical, conceptual, verbal, ethical and social skills. The graduate committee is interested in the applicant's ability to perform research with evidence to substantiate claims made. Note that letters from professors that casually know you will not help you in the admission process.

5. Before international applicants can be considered for admission, the Graduate College requires that all international applicants take the Test of English as a Foreign Language (TOEFL) and obtain a minimum score of 550 or 85 on the Michigan Test. Students whose first language is not English may be required to take and pass the English as a Second Language Placement Test upon arrival at

UNLV. If necessary, they will be required to take English as a Second Language (ESL) courses at UNLV.

6. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.
7. Application deadlines are February 1st for admission in the fall of the same year and October 1st for admission in the spring of the subsequent year.

*Post-Master's Track*

1. Have a Master of Science (M.S.) degree in electrical engineering or computer engineering or a closely related field with an M.S. thesis component. The M.S. thesis must be completed prior to admission. Potential candidates applying to the program based on a course only option or a project option will not be admitted. (Applicants who possess a bachelor's degree in a closely related discipline, such as physics or mathematics, may be admitted on conditional and/or provisional status. These students will be required to complete certain undergraduate and/or graduate courses before they can attain regular full graduate standing status. The graduate committee determines these courses on an individual basis.)
2. Have a minimum overall grade point average (GPA) of 3.20 (A = 4.00) for their M.S. degree and a 3.00 for their B.S. degree.

*Post-Bachelor's Track:*

1. Have a Bachelor of Science (B.S.) degree in electrical engineering or computer engineering or a closely related field. (Applicants who possess a bachelor degree in a closely related discipline, such as physics or mathematics, may be admitted on conditional and/or provisional status. These students will be required to complete certain undergraduate and/or graduate courses before they can attain regular full graduate standing status. The graduate committee determines these courses on an individual basis.)

2. Have a minimum overall grade point average (GPA) of 3.50 (A = 4.00) for their B.S. degree in Electrical or Computer Engineering a closely related field.

*Post-Bachelor's Integrated BS-PHD Track:*

The Integrated BS-PHD Track program allows UNLV undergraduate students who applied up to 9 credits of UNLV electrical engineering or computer engineering graduate courses towards their UNLV B.S. in Electrical Engineering or Computer Engineering degree to complete their Ph.D. in engineering with up to 9 fewer credits than students in the Post-Bachelor's Track. All requirements leading to a Ph.D. are still required beyond the B.S. Degree in Electrical and Computer Engineering excluding the completion of a Master's thesis.

1. Have a minimum overall grade point average (GPA) of 3.5 (A = 4.00) for their B.S. degree in electrical engineering or computer engineering at UNLV.

Have completed up to a maximum of 9 credits of formal Graduate College curriculum approved 600/700 level courses (which excludes informal courses such as Graduate Independent Study, Graduate Seminar, and Special Topics) which were applied towards the student's B.S. degree. Each graduate level course must have been completed with a minimum grade of B (GPA) of 3.2 (A = 4.00). The GRE entrance requirement will be waived for students entering the Ph.D. program if ALL of the following are satisfied:

1. The candidate receives a MS degree in Electrical and Computer Engineering (ECE) at UNLV.
2. The candidate's BS GPA equals or exceeds 3.0.
3. The candidate's MS GPA equals or exceeds 3.6.
4. The candidate shows evidence that a paper pertaining to his/her research has been published in a refereed conference (minimum requirement). A published article in a refereed journal exceeds this minimum requirement. In all cases, the candidate must be the first author of the publication. Galley proofs along with a letter of acceptance may



be used as minimum evidence that a paper will be published.

5. The candidate is not seeking a teaching assistantship.
6. One strong letter of recommendation from the major professor indicating the student's ability for higher education.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Post-Master's Track**

Total Credits Required: 45

Course Requirements

### **Major Field Courses – Credits: 6-15**

Complete 6-15 credits of coursework in an approved major in a single area in Electrical and Computer Engineering with a minimum overall average GPA of 3.33.

#### *Communications*

ECG 662 - Advanced Digital Communications  
ECG 666 - Wireless and Mobile Communication Systems  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 763 - Advanced Digital Communication Systems

#### *Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture

ECG 605 - Data Compression Systems  
ECG 607 - Biometrics  
ECG 608 - Digital Design Verification and Testing  
ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

#### *Control Systems Theory*

ECG 672 - Digital Control Systems  
ECG 770 - Linear Systems Theory  
ECG 771 - Optimal and Modern Controls  
ECG 772 - Nonlinear Systems I  
ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

#### *Electromagnetics and Optics*

ECG 630 - Transmission Lines  
ECG 631 - Engineering Optics  
ECG 632 - Antenna Engineering  
ECG 633 - Active and Passive Microwave Engineering  
ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in Electromagnetics  
ECG 732 - Advanced Engineering Electromagnetics II  
ECG 733 - Plasma I

#### *Electronics*

ECG 620 - Analog Integrated Circuit Design  
ECG 621 - Digital Integrated Circuit Design  
ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design  
ECG 722 - Mixed-Signal Circuit Design

#### *Power Engineering*

ECG 642 - Power Electronics  
ECG 646 - Photovoltaic Devices and Systems

ECG 740 - Computer Analysis Methods for Power Systems

ECG 741 - Electric Power Distribution System Engineering

ECG 742 - Power System Stability and Control

ECG 743 - Smart Electrical Power Grid

#### *Signal Processing*

ECG 680 - Discrete-Time Signal Processing

ECG 760 - Random Processes in Engineering Problems

ECG 762 - Detection and Estimation of Signals in Noise

ECG 781 - Digital Filters

ECG 782 - Multidimensional Digital Signal Processing

ECG 783 - Adaptive Signal Processing with Neural Networks

#### *Solid State Electronics*

ECG 651 - Electronic and Magnetic Materials and Devices

ECG 652 - Optoelectronics

ECG 653 - Introduction to Nanotechnology

ECG 750 - Optical Electronics I

ECG 752 - Physical Electronics

ECG 753 - Advanced Topics in Semiconductor Devices I

ECG 755 - Monolithic Integrated Circuit Fabrication

ECG 756 - Advanced Topics in Semiconductor Devices II

ECG 757 - Electron Transport Phenomena in Solid State Devices

ECG 758 - Numerical Methods in Engineering

#### **Minor Fields Courses – Credits: 6-18**

Select two advisor-approved minor fields and complete coursework in each single area totaling 6-18 credits, with a minimum overall average GPA of 3.33. The secondary minor can be from a field outside Electrical Engineering.

#### *Communications*

ECG 662 - Advanced Digital Communications

ECG 666 - Wireless and Mobile Communication Systems

ECG 760 - Random Processes in Engineering Problems

ECG 762 - Detection and Estimation of Signals in Noise

#### *Computer Engineering*

ECG 600 - Computer Communication Networks

ECG 604 - Modern Processor Architecture

ECG 605 - Data Compression Systems

ECG 607 - Biometrics

ECG 608 - Digital Design Verification and Testing

ECG 700 - Advanced Computer System Architecture

ECG 701 - Reliable Design of Digital Systems

ECG 702 - Interconnection Networks for Parallel Processing Applications

ECG 704 - Coding with Applications in Computers and Communication Media

ECG 706 - Analysis of Telecommunication and Data Networks

ECG 707 - Logic Synthesis Engineering

ECG 709 - Synthesis and Optimization of Digital Systems

#### *Control Systems Theory*

ECG 770 - Linear Systems Theory

ECG 771 - Optimal and Modern Controls

ECG 772 - Nonlinear Systems I

ECG 774 - Stochastic Control

ECG 776 - Adaptive Control

#### *Electromagnetics and Optics*

ECG 630 - Transmission Lines

ECG 631 - Engineering Optics

ECG 632 - Antenna Engineering

ECG 633 - Active and Passive Microwave Engineering

ECG 730 - Advanced Engineering Electromagnetics I

ECG 731 - Theoretical Techniques in Electromagnetics

ECG 732 - Advanced Engineering Electromagnetics II

ECG 733 - Plasma I

#### *Electronics*

ECG 620 - Analog Integrated Circuit Design

ECG 621 - Digital Integrated Circuit Design

ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design  
ECG 722 - Mixed-Signal Circuit Design

#### *Power Engineering*

ECG 642 - Power Electronics  
ECG 646 - Photovoltaic Devices and Systems  
ECG 740 - Computer Analysis Methods for Power Systems  
ECG 741 - Electric Power Distribution System Engineering  
ECG 742 - Power System Stability and Control  
ECG 743 - Smart Electrical Power Grid

#### *Signal Processing*

ECG 680 - Discrete-Time Signal Processing  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 781 - Digital Filters  
ECG 782 - Multidimensional Digital Signal Processing  
ECG 783 - Adaptive Signal Processing with Neural Networks

#### *Solid State Electronics*

ECG 651 - Electronic and Magnetic Materials and Devices  
ECG 652 - Optoelectronics  
ECG 653 - Introduction to Nanotechnology  
ECG 750 - Photonics  
ECG 752 - Physical Electronics  
ECG 753 - Advanced Topics in Semiconductor Devices I  
ECG 755 - Monolithic Integrated Circuit Fabrication  
ECG 756 - Advanced Topics in Semiconductor Devices II  
ECG 757 - Electron Transport Phenomena in Solid State Devices  
ECG 758 - Numerical Methods in Engineering

#### **Elective Courses – Credits: 0-15**

Complete 0-15 credits of 600- or 700-level MAT, PHY, AST, CEE, CEM, ECG, EGG, CS, ME, or other advisor-approved courses.

#### **Dissertation – Credits: 18**

ECG 799 - Dissertation

#### Degree Requirements

1. All Ph.D. students must satisfy the Ph.D. degree program admission requirements and be admitted to the Ph.D. program on a regular status.
2. Complete a minimum of 27 credits of graduate level courses (excluding dissertation credits) with an overall minimum GPA of 3.20 and a minimum GPA of 2.70 (B-) in each class applied towards the 27 credits. The final division of major, minor, and elective credits will be determined in consultation with the student's advisor.
3. Of the 27 required credits, a minimum of 18 credits must be in 700-level courses. Of these 18 credits, a minimum of 15 must be from formal courses. The student's doctoral advisory committee may add more requirements in accordance with the individual's background and field of study.
4. No more than 3 credits may be from Graduate Independent Study together with Graduate Seminar. No more than 6 credits of a combination of informal courses such as Graduate Independent Study, Special Topics, and Seminar may be applied to the degree program.
5. Beyond the Bachelor degree, a Ph.D. student must complete a minimum of 15 credits in an approved ECE major field, 9 credits in an approved ECE minor (primary minor) field, and 9 credits in a second approved open minor (secondary minor) field. Of the 15 credits required in the ECE major field, a minimum of 9 credits must be completed in 700-level courses. A minimum GPA of 3.33 (B+=3.30) must be obtained in the major field. Of the 9 required credits in each minor field, a minimum of 6 credits must be in 700-level courses. A minimum GPA of 3.33 (B+=3.30) must be obtained in each of the minor fields.

6. Informal courses (Graduate Independent Study, Graduate Seminar, and Special Topics) cannot be applied to the ECE major, ECE minor (primary minor) and the open minor (secondary minor) fields.
7. At the time of admission or no later than the first semester, the Ph.D. candidate must formally petition BOTH the graduate college and the ECE graduate committee to accept transfer credits and credits taken as a non-degree seeking graduate student to be applied to the Ph.D. program.
8. All regular (full graduate standing) status graduate students must select a faculty advisor in their first semester.
9. Maintain a minimum overall grade point average (GPA) of 3.20, must maintain a minimum GPA of 3.20 each semester, and must complete all graduate level courses that apply towards their degree with a minimum GPA of 2.70 (B-) in each course. Grades below B- cannot be applied towards the Ph.D. degree and must be repeated or replaced. A class grade below C (2.0) is grounds for initiating a program separation recommendation to the Graduate College. Ph.D. candidates who do not maintain an overall minimum GPA of 3.2, who do not maintain a minimum GPA of 3.2 each semester, or who earn more than one grade below B- will be placed on academic probation or expelled from the program. The Electrical and Computer Engineering Graduate Committee in conjunction with the Graduate College will determine the terms of the student's probation based upon the student's academic record and in accordance with the rules of the Graduate College.
10. All regular (full graduate standing) status graduate students must file an approved program before the completion of their third semester. This program must be approved by the student's advisor and the graduate coordinator. All regular and provisional status graduate students must show satisfactory progress towards completion of their degree by completing at least six credits of their approved program per calendar year. If their progress towards their

degree program is not satisfactory, students will either be put on probation or expelled from the program.

11. Before beginning a dissertation, students must have their dissertation topic approved by their advisor, and the necessary paper work including a dissertation prospectus must be filed with the Graduate College by the end of the third semester. The dissertation prospectus describes the dissertation topic and must include an introductory set of sentences, a well formed hypothesis or hypotheses (specifically italicized in the prospectus) accompanied by a motivation, objectives with major and alternative approaches to the studies, and conjectures of possible outcomes. Students are NOT allowed to take dissertation credits until their prospectus is approved. Credits taken before the approval date will NOT count towards the degree program.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 2 Requirements: Post-Bachelor's Track**

Total Credits Required: 69

#### Course Requirements

#### **Major Field Courses – Credits: 15**

Complete 15 credits of coursework in an approved major in a single area in Electrical and Computer Engineering with a minimum overall GPA of 3.33. A minimum of 9 credits must be in 700-level courses.

#### *Communications*

- ECG 662 - Advanced Digital Communications
- ECG 666 - Wireless and Mobile Communication Systems
- ECG 704 - Coding with Applications in Computers and Communication Media
- ECG 706 - Analysis of Telecommunication and Data Networks
- ECG 760 - Random Processes in Engineering Problems
- ECG 762 - Detection and Estimation of Signals in

Noise  
ECG 763 - Advanced Digital Communication Systems

#### *Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture  
ECG 605 - Data Compression Systems  
ECG 607 - Biometrics  
ECG 608 - Digital Design Verification and Testing  
ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

#### *Control Systems Theory*

ECG 672 - Digital Control Systems  
ECG 770 - Linear Systems Theory  
ECG 771 - Optimal and Modern Controls  
ECG 772 - Nonlinear Systems I  
ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

#### *Electromagnetics and Optics*

ECG 630 - Transmission Lines  
  
ECG 631 - Engineering Optics  
ECG 632 - Antenna Engineering  
ECG 633 - Active and Passive Microwave Engineering  
ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in Electromagnetics  
ECG 732 - Advanced Engineering Electromagnetics II  
ECG 733 - Plasma I

#### *Electronics*

ECG 620 - Analog Integrated Circuit Design  
ECG 621 - Digital Integrated Circuit Design  
ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design

ECG 722 - Mixed-Signal Circuit Design

#### *Power Engineering*

ECG 642 - Power Electronics  
ECG 646 - Photovoltaic Devices and Systems  
ECG 740 - Computer Analysis Methods for Power Systems  
ECG 741 - Electric Power Distribution System Engineering  
ECG 742 - Power System Stability and Control  
ECG 743 - Smart Electrical Power Grid

#### *Signal Processing*

ECG 680 - Discrete-Time Signal Processing  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 781 - Digital Filters  
ECG 782 - Multidimensional Digital Signal Processing  
ECG 783 - Adaptive Signal Processing with Neural Networks

#### *Solid State Electronics*

ECG 651 - Electronic and Magnetic Materials and Devices  
ECG 652 - Optoelectronics  
ECG 653 - Introduction to Nanotechnology  
ECG 750 - Optical Electronics I  
ECG 752 - Physical Electronics  
ECG 753 - Advanced Topics in Semiconductor Devices I  
ECG 755 - Monolithic Integrated Circuit Fabrication  
ECG 756 - Advanced Topics in Semiconductor Devices II  
ECG 757 - Electron Transport Phenomena in Solid State Devices  
ECG 758 - Numerical Methods in Engineering

**Minor Fields Courses – Credits: 18**

Select two advisor-approved minor fields and complete 9 credits of coursework in each single area with a minimum overall average GPA of 3.33. A minimum of 6 credits in each area must be in 700-level courses. The secondary minor can be from a field outside Electrical Engineering.

#### *Communications*

ECG 662 - Advanced Digital Communications  
ECG 666 - Wireless and Mobile Communication Systems  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise

#### *Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture  
ECG 605 - Data Compression Systems  
ECG 607 - Biometrics  
ECG 608 - Digital Design Verification and Testing  
ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

#### *Control Systems Theory*

ECG 770 - Linear Systems Theory  
ECG 771 - Optimal and Modern Controls  
ECG 772 - Nonlinear Systems I  
ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

#### *Electromagnetics and Optics*

ECG 630 - Transmission Lines  
ECG 631 - Engineering Optics  
ECG 632 - Antenna Engineering  
ECG 633 - Active and Passive Microwave Engineering

ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in Electromagnetics  
ECG 732 - Advanced Engineering Electromagnetics II  
ECG 733 - Plasma I

#### *Electronics*

ECG 620 - Analog Integrated Circuit Design  
ECG 621 - Digital Integrated Circuit Design  
ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design  
ECG 722 - Mixed-Signal Circuit Design

#### *Power Engineering*

ECG 642 - Power Electronics  
ECG 646 - Photovoltaic Devices and Systems  
ECG 740 - Computer Analysis Methods for Power Systems  
ECG 741 - Electric Power Distribution System Engineering  
ECG 742 - Power System Stability and Control  
ECG 743 - Smart Electrical Power Grid

#### *Signal Processing*

ECG 680 - Discrete-Time Signal Processing  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 781 - Digital Filters  
ECG 782 - Multidimensional Digital Signal Processing  
ECG 783 - Adaptive Signal Processing with Neural Networks

#### *Solid State Electronics*

ECG 651 - Electronic and Magnetic Materials and Devices  
ECG 652 - Optoelectronics  
ECG 653 - Introduction to Nanotechnology  
ECG 750 - Photonics  
ECG 752 - Physical Electronics  
ECG 753 - Advanced Topics in Semiconductor Devices I  
ECG 755 - Monolithic Integrated Circuit Fabrication

ECG 756 - Advanced Topics in Semiconductor Devices II

ECG 757 - Electron Transport Phenomena in Solid State Devices

ECG 758 - Numerical Methods in Engineering

### **700-Level Elective Courses – Credits: 12**

Complete 12 credits of 700-level MAT, PHY, AST, CEE, CEM, ECG, EGG, CS, ME, or other advisor-approved courses.

### **Elective Courses – Credits: 6**

Complete 6 credits of 600- or 700-level MAT, PHY, AST, CEE, CEM, ECG, EGG, CS, ME, or other advisor-approved courses.

### **Dissertation – Credits: 18**

ECG 799 - Dissertation

### **Degree Requirements**

1. All Ph.D. students must satisfy the Ph.D. degree program admission requirements and be admitted to the Ph.D. program on a regular status.
2. Complete a minimum of 51 credits (24 M.S.E. credits + 27 Post-Master's Track credits) of graduate level courses (excluding dissertation credits) with an overall minimum GPA of 3.20 and a minimum GPA of 2.70 (B-) in each class applied towards the 27 credits.
3. Of the 51 required credits, a minimum of 33 credits must be in 700-level courses. Of these 33 credits, a minimum of 30 must be from formal courses. The student's doctoral advisory committee may add more requirements in accordance with the individual's background and field of study.
4. No more than 6 credits may be from Graduate Independent Study together with Graduate Seminar. No more than 12 credits of a combination of informal courses such as Graduate Independent Study, Special Topics, and Seminar may be applied to the degree program.
5. Complete a minimum of 15 credits in an approved ECE major field, 9 credits an

approved ECE minor (primary minor) field, and 9 credits in a second approved open minor (secondary minor) field. Of the 15 credits required in the ECE major field, a minimum of 9 credits must be completed in 700-level courses. A minimum GPA of 3.33 (B+=3.30) must be obtained in the major field. Of the 9 required credits in each minor field, a minimum of 6 credits must be in 700-level courses. A minimum GPA of 3.33 (B+=3.30) must be obtained in each of the minor fields.

6. Informal courses (Graduate Independent Study, Graduate Seminar, and Special Topics) cannot be applied to the ECE major, ECE minor (primary minor) and the open minor (secondary minor) fields.
7. At the time of admission or no later than the first semester, the Ph.D. candidate must formally petition BOTH the graduate college and the ECE graduate committee to accept transfer credits and credits taken as a non-degree seeking graduate student to be applied to the Ph.D. program.
8. All regular (full graduate standing) status graduate students must select a faculty advisor in their first semester.
9. Students on academic probation may be transferred to the M.S.E. Program depending on the student's academic record. In such a case, the M.S.E. Program requirements must be satisfied. For example, only 6 credits of the informal courses may be applied to the M.S.E. degree program with the further constraint that up to 3 credits total of Independent Study in combination with Graduate Seminar may be in the 6 credits.
10. Maintain a minimum overall grade point average (GPA) of 3.20, must maintain a minimum GPA of 3.20 each semester, and must complete all graduate level courses that apply towards their degree with a minimum GPA of 2.70 (B-) in each course. Grades below B- cannot be applied towards the Ph.D. degree and must be repeated or replaced. A class grade below C (2.0) is grounds for initiating a program separation recommendation to the Graduate College. Ph.D. candidates who do not maintain an

overall minimum GPA of 3.2, who do not maintain a minimum GPA of 3.2 each semester, or who earn more than one grade below B- will be placed on academic probation or expelled from the program. The Electrical and Computer Engineering Graduate Committee and/or the Graduate College will determine the terms of the student's probation in accordance with the rules of the Graduate College.

11. All regular status graduate students must file an approved program before the completion of their third semester. This program must be approved by the student's advisor and the graduate coordinator. All regular and provisional status graduate students must show satisfactory progress towards completion of their degree by completing at least six credits of their approved program per calendar year. If their progress towards their degree program is not satisfactory, students will either be put on probation or expelled from the program.
12. Before beginning a dissertation, students must have their dissertation topic approved by their advisor, and the necessary paper work including a dissertation prospectus must be filed with the Graduate College by the end of the third semester. The dissertation prospectus describes the dissertation topic and must include an introductory set of sentences, a well formed hypothesis or hypotheses (specifically italicized in the prospectus) accompanied by a motivation, objectives with major and alternative approaches to the studies, and conjectures of possible outcomes. Students are NOT allowed to take dissertation credits until their prospectus is approved. Credits taken before the approval date will NOT count towards the degree program.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 3 Requirements: Post-Bachelor's Integrated BS-PHD Track**

Total Credits Required: 60-66

#### Course Requirements

##### **Major Field Courses – Credits: 6-15**

Complete 6-15 credits of coursework in an approved major in a single area in Electrical and Computer Engineering with a minimum overall GPA of 3.33.

##### *Communications*

ECG 662 - Advanced Digital Communications  
ECG 666 - Wireless and Mobile Communication Systems  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 763 - Advanced Digital Communication Systems

##### *Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture  
ECG 605 - Data Compression Systems  
ECG 607 - Biometrics  
ECG 608 - Digital Design Verification and Testing  
ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

##### *Control Systems Theory*

ECG 672 - Digital Control Systems  
ECG 770 - Linear Systems Theory  
ECG 771 - Optimal and Modern Controls  
ECG 772 - Nonlinear Systems I  
ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control



### *Electromagnetics and Optics*

ECG 630 - Transmission Lines  
ECG 631 - Engineering Optics  
ECG 632 - Antenna Engineering  
ECG 633 - Active and Passive Microwave Engineering  
ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in Electromagnetics  
ECG 732 - Advanced Engineering Electromagnetics II  
ECG 733 - Plasma I

### *Electronics*

ECG 620 - Analog Integrated Circuit Design  
ECG 621 - Digital Integrated Circuit Design  
ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design  
ECG 722 - Mixed-Signal Circuit Design

### *Power Engineering*

ECG 642 - Power Electronics  
ECG 646 - Photovoltaic Devices and Systems  
ECG 740 - Computer Analysis Methods for Power Systems  
ECG 741 - Electric Power Distribution System Engineering  
ECG 742 - Power System Stability and Control  
ECG 743 - Smart Electrical Power Grid

### *Signal Processing*

ECG 680 - Discrete-Time Signal Processing  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 781 - Digital Filters  
ECG 782 - Multidimensional Digital Signal Processing  
ECG 783 - Adaptive Signal Processing with Neural Networks

### *Solid State Electronics*

ECG 651 - Electronic and Magnetic Materials and Devices

ECG 652 - Optoelectronics  
ECG 653 - Introduction to Nanotechnology  
ECG 750 - Optical Electronics I  
ECG 752 - Physical Electronics  
ECG 753 - Advanced Topics in Semiconductor Devices I  
ECG 755 - Monolithic Integrated Circuit Fabrication  
ECG 756 - Advanced Topics in Semiconductor Devices II  
ECG 757 - Electron Transport Phenomena in Solid State Devices  
ECG 758 - Numerical Methods in Engineering

### **Minor Fields Courses – Credits: 9-18**

Select two advisor-approved minor fields and complete coursework in each single area totaling 9-18 credits, with a minimum overall average GPA of 3.33. The secondary minor can be from a field outside Electrical Engineering.

### *Communications*

ECG 662 - Advanced Digital Communications  
ECG 666 - Wireless and Mobile Communication Systems  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise

### *Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture  
ECG 605 - Data Compression Systems  
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ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

## Control Systems Theory

ECG 770 - Linear Systems Theory  
ECG 771 - Optimal and Modern Controls  
ECG 772 - Nonlinear Systems I  
ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

## Electromagnetics and Optics

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## Electronics

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ECG 720 - Advanced Analog IC Design  
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## Power Engineering

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## Signal Processing

ECG 680 - Discrete-Time Signal Processing  
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ECG 781 - Digital Filters  
ECG 782 - Multidimensional Digital Signal

## Processing

ECG 783 - Adaptive Signal Processing with Neural Networks

## Solid State Electronics

ECG 651 - Electronic and Magnetic Materials and Devices  
ECG 652 - Optoelectronics  
ECG 653 - Introduction to Nanotechnology  
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ECG 753 - Advanced Topics in Semiconductor Devices I  
ECG 755 - Monolithic Integrated Circuit Fabrication  
ECG 756 - Advanced Topics in Semiconductor Devices II  
ECG 757 - Electron Transport Phenomena in Solid State Devices  
ECG 758 - Numerical Methods in Engineering

## Elective Courses – Credits: 9-18

Complete 9-18 credits of 600- or 700-level MAT, PHY, AST, CEE, CEM, ECG, EGG, CS, ME, or other advisor-approved courses.

## Dissertation – Credits: 18

ECG 799 - Dissertation

## Degree Requirements

1. All Ph.D. students must satisfy the Ph.D. degree program admission requirements and be admitted to the Ph.D. program on a regular status.
2. Total credits required depends on the total number of approved graduate-level course work taken as technical electives (with a grade of B or better) during the senior year.
3. Complete a minimum of 60, 63, or 66 credits (including dissertation credits) respectively corresponding to 9, 6, or 3 credits of formally approved graduate level courses applied toward the B.S. degree yielding a total of 69 course credits. The final division of major, minor, and elective credits will be determined in consultation with the student's advisor.

4. Of the 51 required credits, a minimum of 33 credits must be in 700-level courses. Of these 33 credits, a minimum of 30 must be from formal courses. The student's doctoral advisory committee may add more requirements in accordance with the individual's background and field of study.
5. No more than 6 credits may be from Graduate Independent Study together with Graduate Seminar. No more than 12 credits of a combination of informal courses such as Graduate Independent Study, Special Topics, and Seminar may be applied to the degree program.
6. Complete a minimum of 15 credits in an approved ECE major field, 9 credits in an approved ECE minor (primary minor) field, and 9 credits in a second approved open minor (secondary minor) field. Of the 15 credits required in the ECE major field, a minimum of 9 credits must be completed in 700-level courses. A minimum GPA of 3.33 (B+=3.30) must be obtained in the major field. Of the 9 required credits in each minor field, a minimum of 6 credits must be in 700-level courses. A minimum GPA of 3.33 (B+=3.30) must be obtained in each of the minor fields.
7. Informal courses (Graduate Independent Study, Graduate Seminar, and Special Topics) cannot be applied to the ECE major, ECE minor (primary minor) and the open minor (secondary minor) fields.
8. All regular (full graduate standing) status graduate students must select a faculty advisor in their first semester.
9. Students on academic probation may be transferred to the M.S.E. Program depending on the student's academic record. In such a case, the M.S.E. Program requirements must be satisfied. For example, only 6 credits of the informal courses may be applied to the M.S.E. degree program with the further constraint that up to 3 credits total of Independent Study in combination with Graduate Seminar may be in the 6 credits.
10. Maintain a minimum overall grade point average (GPA) of 3.20, must maintain a minimum GPA of 3.20 each semester, and must complete all graduate level courses that apply towards their degree with a minimum GPA of 2.70 (B-) in each course. Grades below B- cannot be applied towards the Ph.D. degree and must be repeated or replaced. A class grade below C (2.0) is grounds for initiating a program separation recommendation to the Graduate College. Ph.D. candidates who do not maintain an overall minimum GPA of 3.20, who do not maintain a GPA of 3.20 each semester, or who earn more than one grade below B- will either be placed on probation or expelled from the program. The Electrical and Computer Engineering Graduate Committee and/or the Graduate College will determine the terms of the student's probation in accordance with the rules of the Graduate College.
11. All regular status graduate students must file an approved program before the completion of their third semester. This program must be approved by the student's advisor and the graduate coordinator. All regular and provisional status graduate students must show satisfactory progress towards completion of their degree by completing at least six credits of their approved program per calendar year. If their progress towards their degree program is not satisfactory, students will either be put on probation or expelled from the program.
12. Before beginning a dissertation, students must have their dissertation topic approved by their advisor, and the necessary paper work including a dissertation prospectus must be filed with the Graduate College by the end of the third semester. The dissertation prospectus describes the dissertation topic and must include an introductory set of sentences, a well formed hypothesis or hypotheses (specifically italicized in the prospectus) accompanied by a motivation, objectives with major and alternative approaches to the studies, and conjectures of possible outcomes. Students are NOT allowed to take dissertation credits until their prospectus is approved. Credits

taken before the approval date will NOT count towards the degree program.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Plan Graduation Requirements**

1. During the first semester, a Ph.D. student must select a faculty advisor. The faculty advisor does not have to be the one to whom the student was assigned upon entering the Ph.D. program. In coordination with the faculty advisor, the student must also form a doctoral advisory committee. A doctoral advisory committee is composed of at least four members of the UNLV Graduate Faculty. Three of the faculty must be from the Department of Electrical and Computer Engineering. The fourth from a relevant supporting field having Full Graduate Faculty Status as recognized by the Graduate College.
  2. Students admitted on provisional and/or conditional status are not allowed to take the qualifying exam until their provisions and/or conditions have been met. Students taking the exam while on provisional or conditional status will be required to retake the exam regardless if one or all areas of the exam have been passed.
  3. Provisional status students must complete all required supplementary work within one calendar year from the time of admission into the program with a grade of B (3.0) or better in each course.
  4. Pass the Qualifying Exam within 2 semesters of being admitted to the Ph.D. program on a regular (full graduate standing) status. The Qualifying Exam is offered once every fall semester and once every spring semester. This exam cannot be taken more than twice.
    - a. The Qualifying Exam tests the student's general undergraduate knowledge of electrical engineering and computer engineering. To register for the Qualifying Exam, eligible students must notify the graduate coordinator no later than one month prior to the examination date.
- b. All students must pass the Qualifying Exam within the first two semesters (excluding the summer semester) upon being admitted to the Ph.D. program on a regular status. If a student is required to take the qualifying exam and is not present to sit the exam, an automatic FAIL is assigned. Students who have not passed the Qualifying Exam within this time frame will be terminated from the Ph.D. program. Students who have not passed the Qualifying Exam by their second attempt will be terminated from the Ph.D. program. Students in the Direct Ph.D. program who fail the Qualifying Exam on their second attempt within the two semester time frame may elect to pursue a M.S. Degree by completing all of the requirements listed for that degree.
  - c. The Qualifying Exam is a four and one-half hour exam covering questions in the following undergraduate electrical and computer engineering fields:
    - i. Communications
    - ii. Control System Theory
    - iii. Electromagnetics and Optics
    - iv. Electronics
    - v. Power
    - vi. Signal Processing
    - vii. Solid State
    - viii. Digital Logic Design
    - ix. Computer Architectures and Organization
    - x. Digital Electronics and VLSI Design
    - xi. Computer Communication Networks
  - d. To pass the qualifying exam requirement, the student must

successfully complete any four of the eleven areas with a grade of PASS to complete the qualifying exam requirement within two sittings. If the student passes less than four areas on the first attempt, the student will receive a PASS for those individual areas successfully completed and will not be required to retake these areas on the second attempt. The exam is a closed note, closed book exam.

- e. For more details on course specifics, exam logistics, appeal rights and procedure, and protocols regarding the qualifying exam, refer to the ECE department's Electrical Engineering Graduate Program Document.
5. In all Post-Bachelor's Tracks, a Ph.D. student must complete a minimum of 15 credits in an approved ECE major field in a single area of Electrical and Computer Engineering, 9 credits in an approved ECE minor field (primary minor) in a single but different area of Electrical and Computer Engineering, and another 9 credits in a second approved minor (secondary minor) field. Currently, the Department of Electrical and Computer Engineering at UNLV offers Communications, Computer Engineering, Control System Theory, Electromagnetics and Optics, Electronics, Power Systems, Signal Processing, and Solid State Materials and Devices as major fields. Specific courses that can be applied to specific fields are listed in detail in the Electrical Engineering Graduate Program Document.
    - a. Of the 15 credits required in the ECE major field, a minimum of 9 credits must be completed in 700-level courses. To complete the ECE major field requirement, the applied 15 credits of ECE major course work must attain a minimum overall GPA of 3.33 (B+=3.30).
    - b. Each student must complete two minor fields. To complete a minor field, a student must complete a minimum of 9 credits in a minor field and have an overall minimum GPA of 3.33 (B+=3.30) for the 9 minor field credits. Of the 9 required credits in each minor field, a minimum of 6 credits must be in 700-level courses. Courses that can be applied to specific minor fields are listed in detail in the Electrical Engineering Graduate Program Document. These courses may be applied to any designated field but may only be counted once. With the written approval of the major advisor and the student's advisory committee, the secondary minor may be a mixed minor field. A mixed minor field may be formed with courses inside and/or outside of the Electrical Engineering Department's approved fields (e.g., mathematics and physics, computer engineering and computer science, physics, mechanical engineering, solid state and electromagnetics) A mixed minor may not be composed of courses in the Electrical Engineering Department that satisfy course work in the major and the other minor field. The only exception is when a course may be used in more than one field. In this case, the course may not be counted twice but may be used for either minor area. However, the student must complete at least one minor field (primary minor field) in Electrical Engineering in a single area.
  6. After passing the Qualifying Exam, successfully completing all courses for a major field, and successfully completing all courses for the ECE minor field, students are eligible to take the Comprehensive Exam. All students must have passed the Comprehensive Exam within two semesters

after successfully completing all required course work except for the 18 credits Dissertation. [NOTE: Up to 6 credits of Dissertation taken prior to the successful completion of the Preliminary Exam may count towards the degree program.] The Comprehensive Exam cannot be taken more than once per semester and cannot be taken more than twice.

- a. The Comprehensive Exam tests the candidate's depth of knowledge in the candidate's chosen ECE major field and chosen ECE minor (primary minor) field. All students must have passed the Comprehensive Exam within two semesters after successfully completing all required course work (except for the 18 credits of Dissertation). The Comprehensive Exam is offered once every fall semester and once every spring semester. The Comprehensive Exam cannot be taken more than twice. Candidates who have not passed the Comprehensive Exam within this time frame (two consecutive sittings) will be terminated from the Ph.D. program. Candidates who have not passed the Comprehensive Exam following their second attempt will be terminated from the Ph.D. program.
- b. Before a student is eligible to register for the Comprehensive Exam, the candidate must have obtained regular (full graduate standing) admission status, passed the Qualifying Exam, and must have successfully completed all of the course requirements for the ECE major field and the ECE minor (primary minor) field. The student must have acquired a minimum GPA of 3.33 in both the major and minor fields separately. If the minor field GPA is less than 3.33 and/or the major field GPA is

less than 3.33, then the minor and/or minor field requirement has not been successfully completed. The candidate will not be allowed to take the Comprehensive Exam until both the major and minor 3.33 GPA requirements are fulfilled.

Further, the student must have a minimum overall GPA of 3.2 and must have satisfied all other Ph.D. degree program admission requirements. If a student takes the Comprehensive Exam before any one of these requirements has been satisfied, the student will automatically receive a FAIL grade for the exam. At their discretion, the Graduate Committee may also count this failing grade as one of the student's attempts for the Comprehensive Exam. To register for the Comprehensive Exam, eligible students must notify the graduate coordinator no later than one month prior to the examination date.

- c. To pass the Comprehensive Exam, a student must pass a five-hour exam covering courses in his/her ECE major field and ECE minor (primary minor) field. A pass or fail grade will be given for the exam. The graduate committee will notify students of the results of the exam. The major and minor area exam will emphasize graduate coursework taken in the ECE major and ECE minor (primary minor; minor 1) fields. The exam will evaluate the student's ability to apply his/her theoretical and analytical abilities to problems in his/her ECE major and ECE minor (primary minor) field. However, the exam may require knowledge of undergraduate material related to the student's major and minor fields. Students should expect problems that require advanced

- thinking. Specific problems need not be familiar textbook problems nor may the student be necessarily familiar with the problem. A pass or fail grade will be given for the exam. The graduate committee will notify students of the exam results.
- d. For more details on course specifics, exam logistics, appeal rights and procedure, and protocols regarding the comprehensive exam, refer to the ECE department's Electrical Engineering Graduate Program Document.
7. After successfully completing all required course work and passing the Comprehensive Exam, the candidate must pass the Preliminary Exam. The Preliminary Exam cannot be taken more than once per semester but may be repeated until passed.
    - a. The Preliminary Exam evaluates the caliber of a student's dissertation topic. The Preliminary Exam cannot be taken more than once per semester but may be repeated until passed.
    - b. To be eligible for the Preliminary Exam, a student must have passed the Comprehensive Exam, and have successfully completed all required course work except for the 18 credits of Dissertation.
    - c. Before the Preliminary Exam, a student must prepare a 10 to 20-page prospectus of his/her research. A copy of this prospectus must be submitted to the Graduate Committee and each member of the Ph.D. candidate's advisory committee at least two weeks prior to the Preliminary Exam.
    - d. The student must also notify the Graduate Committee and each member of their advisory committee of the date, time and location of their Preliminary Exam. This must be done at least two weeks prior to the Preliminary Exam.
    - e. During the Preliminary Exam, the student presents his/her prospectus to his advisory committee. To pass the Preliminary Exam, the student's advisory committee must unanimously approve the student's prospectus. Students who pass the Preliminary Exam are advanced to candidacy for the Ph.D.
  8. Complete a minimum of 18 credits of Dissertation and complete a dissertation containing original research. Upon completion, the student must pass the Final Exam in which the student defends his/her dissertation. The Final Exam is the culminating experience of the PhD program.
    - a. The Final Exam evaluates the Ph.D. candidate's dissertation. The Final Exam cannot be taken more than once per every three months but may be repeated until passed. To be eligible for the Final Exam, a Ph.D. candidate must have passed the Preliminary Exam, and have successfully completed all required course work including a minimum of 18 credits of Dissertation. A minimum of 12 credits of Dissertation must be taken after the successful completion of the Preliminary Exam. A copy of the Ph.D. candidate's dissertation must be submitted to the Graduate Committee and each member of the Ph.D. candidate's advisory committee at least two weeks prior to the Final Exam. The Ph.D. candidate must also notify the Graduate Committee and each member of his/her advisory committee of the date, time, and location of his/her Final Exam at least two weeks prior to the Final Exam. During the Final Exam, the Ph.D. candidate will present his/her dissertation to their advisory committee. To pass the Final Exam, the Ph.D. candidate's advisory committee must

unanimously approve the Ph.D. candidate's dissertation.

9. The Department of Electrical and Computer Engineering requires that the Ph.D. degree be completed within a period of six years from the time the candidate is fully admitted to the Ph.D. program. Further, courses taken more than six years prior to graduation cannot be applied toward the PhD degree without permission from the Graduate College. Students exceeding this time limit must formally write a letter requesting permission from both the Graduate Committee and the Graduate College to stay in the Ph.D. program and apply coursework towards the degree program. The formal letter must explain the circumstances of why the degree was not completed within the allotted time frame and indicate the extended period of time needed to complete the degree.
10. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
11. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
12. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Dual Degree: Doctor of Philosophy - Electrical Engineering & Master of Science - Mathematical Sciences

### Plan Description

The dual Ph.D. EE and M.S. MAT program of study is designed for those who want to pursue a Ph.D. degree in Electrical Engineering or a career in Electrical Engineering with emphasis in applied mathematics. The program prepares graduate students with complementing educational components covering electrical engineering and mathematics, which is the basis of all engineering.

The culminating experience in the Ph.D. program in the Department of Electrical and Computer Engineering is centered about developing new knowledge focused around a specific theme embodied in the form a well-written and orally defended dissertation. The Department of Electrical and Computer Engineering at UNLV offers a number of program options leading to the Ph.D. degree in the Field of Electrical Engineering. Specific major areas of study currently available include: Communications, Computer Engineering, Control System Theory, Electromagnetics and Optics, Electronics, Power Systems, Signal Processing, and Solid State Materials and Devices.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

Learning outcomes for each degree can be found below:

- Doctor of Philosophy - Electrical Engineering
- Master of Science - Mathematical Sciences

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.



Applicants are considered on an individual basis. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Applicants must satisfy the minimum requirements of the Ph.D. – Electrical Engineering program, and the M.S. – Mathematics program. If denied by one program, the applicant will have the option of proceeding with a single degree program with departmental approval.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Post-Master's Track**

Total Credits Required: 69-72

#### Course Requirements

*Total Credits Required for the Mathematical Sciences M.S.: 30-33*

### **Required Courses – Credits: 6**

Complete two of the following courses:

MAT 707 - Real Analysis I  
MAT 709 - Complex Function Theory I  
MAT 765 - Advanced Numerical Analysis

### **Elective Courses – Credits: 21-24**

Students completing the exam option must complete a minimum of 24 credits of MAT or STA elective courses (excluding MAT 711 & 712), and students completing the thesis option must complete a minimum of 21 credits of MAT or STA elective courses (excluding MAT 711 & 712). Other graduate-level courses may be taken with advisor-approval.

### **Thesis – Credits: 6 (Optional)**

Complete 6 credits from one of the following courses:

MAT 791 - Thesis  
STA 791 - Thesis

*Total Credits Required for the Electrical Engineering Ph.D.: 45*

### **Major Field Courses – Credits: 6-15**

Complete 6-15 credits of coursework in an approved major in a single area in Electrical and Computer Engineering with a minimum overall average GPA of 3.33.

#### *Communications*

ECG 662 - Advanced Digital Communications  
ECG 666 - Wireless and Mobile Communication Systems  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 763 - Advanced Digital Communication Systems

#### *Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture  
ECG 605 - Data Compression Systems  
ECG 607 - Biometrics  
ECG 608 - Digital Design Verification and Testing  
ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

### *Control Systems Theory*

ECG 672 - Digital Control Systems  
ECG 770 - Linear Systems Theory  
ECG 771 - Optimal and Modern Controls  
ECG 772 - Nonlinear Systems I  
ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

### *Electromagnetics and Optics*

ECG 630 - Transmission Lines  
ECG 631 - Engineering Optics  
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ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in Electromagnetics  
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ECG 733 - Plasma I

### *Electronics*

ECG 620 - Analog Integrated Circuit Design  
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ECG 720 - Advanced Analog IC Design  
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ECG 642 - Power Electronics  
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ECG 742 - Power System Stability and Control  
ECG 743 - Smart Electrical Power Grid

### *Signal Processing*

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ECG 762 - Detection and Estimation of Signals in Noise  
ECG 781 - Digital Filters

ECG 782 - Multidimensional Digital Signal Processing  
ECG 783 - Adaptive Signal Processing with Neural Networks

### *Solid State Electronics*

ECG 651 - Electronic and Magnetic Materials and Devices  
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ECG 653 - Introduction to Nanotechnology  
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ECG 755 - Monolithic Integrated Circuit Fabrication  
ECG 756 - Advanced Topics in Semiconductor Devices II  
ECG 757 - Electron Transport Phenomena in Solid State Devices  
ECG 758 - Numerical Methods in Engineering

### **Minor Fields Courses – Credits: 6-18**

Select two advisor-approved minor fields and complete coursework in each single area totaling 6-18 credits, with a minimum overall average GPA of 3.33. The secondary minor can be from a field outside Electrical Engineering.

### *Communications*

ECG 662 - Advanced Digital Communications  
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ECG 755 - Monolithic Integrated Circuit Fabrication  
ECG 756 - Advanced Topics in Semiconductor Devices II  
ECG 757 - Electron Transport Phenomena in Solid State Devices  
ECG 758 - Numerical Methods in Engineering

#### Elective Courses – Credits: 0-12

Complete 0-12 credits of 600- or 700-level MAT, PHY, AST, CEE, CEM, ECG, EGG, CS, ME, or other advisor-approved courses.

#### Dissertation – Credits: 18

ECG 799 - Dissertation  
*Total Credits Shared: 6*

Two courses can be double counted between Electrical Engineering Ph.D. and Mathematical Sciences M.S. degrees. Non-ECG courses must be applied towards non-ECG elective credits in the electrical engineering degree program pursued.

#### Degree Requirements

1. A minimum 69 or 72 credits (including thesis and dissertation credits) is required for the Dual Electrical Engineering Ph.D. and Mathematical Sciences M.S. which

corresponds to the choice of completing a Mathematics comprehensive exam or thesis.

2. Two of the courses included in the degree program can be double counted in the Electrical Engineering Ph.D. and Mathematical Sciences M.S. degrees. Non-ECG courses must be applied towards non-ECG elective credits in the electrical engineering degree program pursued.

#### *Mathematical Sciences M.S*

1. Students completing a thesis must complete a minimum of 33 credit hours with a minimum GPA of 3.00.
2. Students completing the comprehensive exam must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
3. For the master's degree 21 credits of mathematics course work must be at the 700-level (excluding thesis).
4. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee.
5. The Graduate College requires a minimum of 50 percent of the total credits required to complete the graduate degree, exclusive of transferred credits and/or the thesis, must be earned at UNLV after admission to a graduate degree program.
6. Students must complete a final examination. This will be either an examination to defend the thesis or a written comprehensive examination based on requirements 1 and 2.
7. If the thesis option is chosen: In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion.

Please see Graduate College policy for committee appointment guidelines.

#### *Electrical Engineering Ph.D.*

1. All Ph.D. students must satisfy the Ph.D. degree program admission requirements and be admitted to the Ph.D. program on a regular status.
2. Complete a minimum of 27 credits of graduate level courses (excluding dissertation credits) with an overall minimum GPA of 3.20 and a minimum GPA of 2.70 (B-) in each class applied towards the 27 credits. The final division of major, minor, and elective credits will be determined in consultation with the student's advisor.
3. Of the 27 required credits, a minimum of 18 credits must be in 700-level courses. Of these 18 credits, a minimum of 15 must be from formal courses. The student's doctoral advisory committee may add more requirements in accordance with the individual's background and field of study.
4. No more than 3 credits may be from Graduate Independent Study together with Graduate Seminar. No more than 6 credits of a combination of informal courses such as Graduate Independent Study, Special Topics, and Seminar may be applied to the degree program.
5. Beyond the Bachelor degree, a Ph.D. student must complete a minimum of 15 credits in an approved ECE major field, 9 credits an approved ECE minor (primary minor) field, and 9 credits in a second approved open minor (secondary minor) field. Of the 15 credits required in the ECE major field, a minimum of 9 credits must be completed in 700-level courses. A minimum GPA of 3.33 (B+=3.30) must be obtained in the major field. Of the 9 required credits in each minor field, a minimum of 6 credits must be in 700-level courses. A minimum GPA of 3.33 (B+=3.30) must be obtained in each of the minor fields.
6. Informal courses (Graduate Independent Study, Graduate Seminar, and Special Topics) cannot be applied to the ECE major,

- ECE minor (primary minor) and the open minor (secondary minor) fields.
7. At the time of admission or no later than the first semester, the Ph.D. candidate must formally petition BOTH the graduate college and the ECE graduate committee to accept transfer credits and credits taken as a non-degree seeking graduate student to be applied to the Ph.D. program.
  8. All regular (full graduate standing) status graduate students must select a faculty advisor in their first semester.
  9. Maintain a minimum overall grade point average (GPA) of 3.20, must maintain a minimum GPA of 3.20 each semester, and must complete all graduate level courses that apply towards their degree with a minimum GPA of 2.70 (B-) in each course. Grades below B- cannot be applied towards the Ph.D. degree and must be repeated or replaced. A class grade below C (2.0) is grounds for initiating a program separation recommendation to the Graduate College. Ph.D. candidates who do not maintain an overall minimum GPA of 3.2, who do not maintain a minimum GPA of 3.2 each semester, or who earn more than one grade below B- will be placed on academic probation or expelled from the program. The Electrical and Computer Engineering Graduate Committee in conjunction with the Graduate College will determine the terms of the student's probation based upon the student's academic record and in accordance with the rules of the Graduate College.
  10. All regular (full graduate standing) status graduate students must file an approved program before the completion of their third semester. This program must be approved by the student's advisor and the graduate coordinator. All regular and provisional status graduate students must show satisfactory progress towards completion of their degree by completing at least six credits of their approved program per calendar year. If their progress towards their degree program is not satisfactory, students will either be put on probation or expelled from the program.

11. Before beginning a dissertation, students must have their dissertation topic approved by their advisor, and the necessary paper work including a dissertation prospectus must be filed with the Graduate College by the end of the third semester. The dissertation prospectus describes the dissertation topic and must include an introductory set of sentences, a well formed hypothesis or hypotheses (specifically italicized in the prospectus) accompanied by a motivation, objectives with major and alternative approaches to the studies, and conjectures of possible outcomes. Students are NOT allowed to take dissertation credits until their prospectus is approved. Credits taken before the approval date will NOT count towards the degree program.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 2 Requirements: Post-Bachelor's Track**

Total Credits Required: 93-96

#### Course Requirements

*Total Credits Required for the Mathematical Sciences M.S.: 30-33*

#### **Required Courses – Credits: 6**

Complete two of the following courses:

MAT 707 - Real Analysis I

MAT 709 - Complex Function Theory I

MAT 765 - Advanced Numerical Analysis

#### **Elective Courses – Credits: 21-24**

Students completing the exam option must complete a minimum of 24 credits of MAT or STA elective courses (excluding MAT 711 & 712), and students completing the thesis option must complete a minimum of 21 credits of MAT or STA elective courses (excluding MAT 711 & 712). Other graduate-level courses may be taken with advisor-approval.

#### **Thesis – Credits: 6 (Optional)**

Complete 6 credits from one of the following courses:

MAT 791 - Thesis  
STA 791 - Thesis

*Total Credits Required for the Electrical Engineering Ph.D.: 69*

### **Major Field Courses – Credits: 15**

Complete 15 credits of coursework in an approved major in a single area in Electrical and Computer Engineering with a minimum overall GPA of 3.33. A minimum of 9 credits must be in 700-level courses.

#### *Communications*

ECG 662 - Advanced Digital Communications  
ECG 666 - Wireless and Mobile Communication Systems  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 763 - Advanced Digital Communication Systems

#### *Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture  
ECG 605 - Data Compression Systems  
ECG 607 - Biometrics  
ECG 608 - Digital Design Verification and Testing  
ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering

ECG 709 - Synthesis and Optimization of Digital Systems

#### *Control Systems Theory*

ECG 672 - Digital Control Systems  
ECG 770 - Linear Systems Theory  
ECG 771 - Optimal and Modern Controls  
ECG 772 - Nonlinear Systems I  
ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

#### *Electromagnetics and Optics*

ECG 630 - Transmission Lines  
ECG 631 - Engineering Optics  
ECG 632 - Antenna Engineering  
ECG 633 - Active and Passive Microwave Engineering  
ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in Electromagnetics  
ECG 732 - Advanced Engineering Electromagnetics II  
ECG 733 - Plasma I

#### *Electronics*

ECG 620 - Analog Integrated Circuit Design  
ECG 621 - Digital Integrated Circuit Design  
ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design  
ECG 722 - Mixed-Signal Circuit Design

#### *Power Engineering*

ECG 642 - Power Electronics  
ECG 646 - Photovoltaic Devices and Systems  
ECG 740 - Computer Analysis Methods for Power Systems  
ECG 741 - Electric Power Distribution System Engineering  
ECG 742 - Power System Stability and Control  
ECG 743 - Smart Electrical Power Grid

#### *Signal Processing*

ECG 680 - Discrete-Time Signal Processing  
ECG 760 - Random Processes in Engineering Problems

ECG 762 - Detection and Estimation of Signals in Noise  
ECG 781 - Digital Filters  
ECG 782 - Multidimensional Digital Signal Processing  
ECG 783 - Adaptive Signal Processing with Neural Networks

*Solid State Electronics*

ECG 651 - Electronic and Magnetic Materials and Devices  
ECG 652 - Optoelectronics  
ECG 653 - Introduction to Nanotechnology  
ECG 750 - Optical Electronics I  
ECG 752 - Physical Electronics  
ECG 753 - Advanced Topics in Semiconductor Devices I  
ECG 755 - Monolithic Integrated Circuit Fabrication  
ECG 756 - Advanced Topics in Semiconductor Devices II  
ECG 757 - Electron Transport Phenomena in Solid State Devices  
ECG 758 - Numerical Methods in Engineering

**Minor Fields Courses – Credits: 18**

Select two advisor-approved minor fields and complete 9 credits of coursework in each single area with a minimum overall average GPA of 3.33. A minimum of 6 credits in each area must be in 700-level courses. The secondary minor can be from a field outside Electrical Engineering.

*Communications*

ECG 662 - Advanced Digital Communications  
  
ECG 666 - Wireless and Mobile Communication Systems  
  
ECG 760 - Random Processes in Engineering Problems  
  
ECG 762 - Detection and Estimation of Signals in Noise

*Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture

ECG 605 - Data Compression Systems  
ECG 607 - Biometrics  
ECG 608 - Digital Design Verification and Testing  
ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

*Control Systems Theory*

ECG 770 - Linear Systems Theory  
ECG 771 - Optimal and Modern Controls  
ECG 772 - Nonlinear Systems I  
ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

*Electromagnetics and Optics*

ECG 630 - Transmission Lines  
ECG 631 - Engineering Optics  
ECG 632 - Antenna Engineering  
ECG 633 - Active and Passive Microwave Engineering  
ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in Electromagnetics  
ECG 732 - Advanced Engineering Electromagnetics II  
ECG 733 - Plasma I

*Electronics*

ECG 620 - Analog Integrated Circuit Design  
ECG 621 - Digital Integrated Circuit Design  
ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design  
ECG 722 - Mixed-Signal Circuit Design

*Power Engineering*

ECG 642 - Power Electronics  
ECG 646 - Photovoltaic Devices and Systems  
ECG 740 - Computer Analysis Methods for Power

## Systems

ECG 741 - Electric Power Distribution System Engineering

ECG 742 - Power System Stability and Control

ECG 743 - Smart Electrical Power Grid

## Signal Processing

ECG 680 - Discrete-Time Signal Processing

ECG 760 - Random Processes in Engineering Problems

ECG 762 - Detection and Estimation of Signals in Noise

ECG 781 - Digital Filters

ECG 782 - Multidimensional Digital Signal Processing

ECG 783 - Adaptive Signal Processing with Neural Networks

## Solid State Electronics

ECG 651 - Electronic and Magnetic Materials and Devices

ECG 652 - Optoelectronics

ECG 653 - Introduction to Nanotechnology

ECG 750 - Photonics

ECG 752 - Physical Electronics

ECG 753 - Advanced Topics in Semiconductor Devices I

ECG 755 - Monolithic Integrated Circuit Fabrication

ECG 756 - Advanced Topics in Semiconductor Devices II

ECG 757 - Electron Transport Phenomena in Solid State Devices

ECG 758 - Numerical Methods in Engineering

## 700-Level Elective Courses – Credits: 12

Complete 12 credits of 700-level MAT, PHY, AST, CEE, CEM, ECG, EGG, CS, ME, or other advisor-approved courses.

## Elective Courses – Credits: 6

Complete 6 credits of 600- or 700-level MAT, PHY, AST, CEE, CEM, ECG, EGG, CS, ME, or other advisor-approved courses.

## Dissertation – Credits: 18

ECG 799 - Dissertation

*Total Credits Shared: 6*

Two courses can be double counted between Electrical Engineering Ph.D. and Mathematical Sciences M.S. degrees. Non-ECG courses must be applied towards non-ECG elective credits in the electrical engineering degree program pursued.

## Degree Requirements

1. A minimum 93 or 96 credits (including thesis and dissertation credits) is required for the Dual Electrical Engineering Ph.D. and Mathematical Sciences M.S. which corresponds to the choice of completing a Mathematics comprehensive exam or thesis.
2. Two of the courses included in the degree program can be double counted Electrical Engineering M.S.E and Mathematical Sciences M.S. degrees. Non-ECG courses must be applied towards non-ECG elective credits in the electrical engineering degree program pursued.

## Mathematical Sciences M.S

1. Students completing a thesis must complete a minimum of 33 credit hours with a minimum GPA of 3.00.
2. Students completing the comprehensive exam must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
3. 21 credits of mathematics course work must be at the 700-level (excluding thesis).
4. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee.
5. The Graduate College requires a minimum of 50 percent of the total credits required to complete the graduate degree, exclusive of transferred credits and/or the thesis, must be earned at UNLV after admission to a graduate degree program.



6. Students must complete a final examination. This will be either an examination to defend the thesis or a written comprehensive examination based on requirements 1 and 2.
7. If the thesis option is chosen: In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

*Electrical Engineering Ph.D.*

1. All Ph.D. students must satisfy the Ph.D. degree program admission requirements and be admitted to the Ph.D. program on a regular status.
2. Complete a minimum of 51 credits (24 M.S.E. credits + 27 Post-Master's Track credits) of graduate level courses (excluding dissertation credits) with an overall minimum GPA of 3.20 and a minimum GPA of 2.70 (B-) in each class applied towards the 27 credits.
3. Of the 51 required credits, a minimum of 33 credits must be in 700-level courses. Of these 33 credits, a minimum of 30 must be from formal courses. The student's doctoral advisory committee may add more requirements in accordance with the individual's background and field of study.
4. No more than 6 credits may be from Graduate Independent Study together with Graduate Seminar. No more than 12 credits of a combination of informal courses such as Graduate Independent Study, Special Topics, and Seminar may be applied to the degree program.
5. Complete a minimum of 15 credits in an approved ECE major field, 9 credits in an approved ECE minor (primary minor) field, and 9 credits in a second approved open minor (secondary minor) field. Of the 15 credits required in the ECE major field, a minimum of 9 credits must be completed in

700-level courses. A minimum GPA of 3.33 (B+=3.30) must be obtained in the major field. Of the 9 required credits in each minor field, a minimum of 6 credits must be in 700-level courses. A minimum GPA of 3.33 (B+=3.30) must be obtained in each of the minor fields.

6. Informal courses (Graduate Independent Study, Graduate Seminar, and Special Topics) cannot be applied to the ECE major, ECE minor (primary minor) and the open minor (secondary minor) fields.
7. At the time of admission or no later than the first semester, the Ph.D. candidate must formally petition BOTH the graduate college and the ECE graduate committee to accept transfer credits and credits taken as a non-degree seeking graduate student to be applied to the Ph.D. program.
8. All regular (full graduate standing) status graduate students must select a faculty advisor in their first semester.
9. Students on academic probation may be transferred to the M.S.E. Program depending on the student's academic record. In such a case, the M.S.E. Program requirements must be satisfied. For example, only 6 credits of the informal courses may be applied to the M.S.E. degree program with the further constraint that up to 3 credits total of Independent Study in combination with Graduate Seminar may be in the 6 credits.
10. Maintain a minimum overall grade point average (GPA) of 3.20, must maintain a minimum GPA of 3.20 each semester, and must complete all graduate level courses that apply towards their degree with a minimum GPA of 2.70 (B-) in each course. Grades below B- cannot be applied towards the Ph.D. degree and must be repeated or replaced. A class grade below C (2.0) is grounds for initiating a program separation recommendation to the Graduate College. Ph.D. candidates who do not maintain an overall minimum GPA of 3.2, who do not maintain a minimum GPA of 3.2 each semester, or who earn more than one grade below B- will be placed on academic probation or expelled from the program. The

Electrical and Computer Engineering Graduate Committee and/or the Graduate College will determine the terms of the student's probation in accordance with the rules of the Graduate College.

11. All regular status graduate students must file an approved program before the completion of their third semester. This program must be approved by the student's advisor and the graduate coordinator. All regular and provisional status graduate students must show satisfactory progress towards completion of their degree by completing at least six credits of their approved program per calendar year. If their progress towards their degree program is not satisfactory, students will either be put on probation or expelled from the program.
12. Before beginning a dissertation, students must have their dissertation topic approved by their advisor, and the necessary paper work including a dissertation prospectus must be filed with the Graduate College by the end of the third semester. The dissertation prospectus describes the dissertation topic and must include an introductory set of sentences, a well formed hypothesis or hypotheses (specifically italicized in the prospectus) accompanied by a motivation, objectives with major and alternative approaches to the studies, and conjectures of possible outcomes. Students are NOT allowed to take dissertation credits until their prospectus is approved. Credits taken before the approval date will NOT count towards the degree program.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 3 Requirements: Post-Bachelor's Integrated BS-PHD Track**

Total Credits Required: 84-93

#### Course Requirements

*Total Credits Required for the Mathematical Sciences M.S.: 30-33*

#### **Required Courses – Credits: 6**

Complete two of the following courses:

MAT 707 - Real Analysis I  
MAT 709 - Complex Function Theory I  
MAT 765 - Advanced Numerical Analysis

#### **Elective Courses – Credits: 21-24**

Students completing the exam option must complete a minimum of 24 credits of MAT or STA elective courses (excluding MAT 711 & 712), and students completing the thesis option must complete a minimum of 21 credits of MAT or STA elective courses (excluding MAT 711 & 712). Other graduate-level courses may be taken with advisor-approval.

#### **Thesis – Credits: 6 (Optional)**

Complete 6 credits from one of the following courses:

MAT 791 - Thesis  
STA 791 - Thesis

*Total Credits Required for the Electrical Engineering Ph.D.: 60-66*

#### **Major Field Courses – Credits: 6-15**

Complete 6-15 credits of coursework in an approved major in a single area in Electrical and Computer Engineering with a minimum overall GPA of 3.33.

#### *Communications*

ECG 662 - Advanced Digital Communications  
ECG 666 - Wireless and Mobile Communication Systems  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 763 - Advanced Digital Communication Systems

### *Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture  
ECG 605 - Data Compression Systems  
ECG 607 - Biometrics  
ECG 608 - Digital Design Verification and Testing  
ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

### *Control Systems Theory*

ECG 672 - Digital Control Systems  
ECG 770 - Linear Systems Theory  
ECG 771 - Optimal and Modern Controls  
ECG 772 - Nonlinear Systems I  
ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

### *Electromagnetics and Optics*

ECG 630 - Transmission Lines  
ECG 631 - Engineering Optics  
ECG 632 - Antenna Engineering  
ECG 633 - Active and Passive Microwave Engineering  
ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in Electromagnetics  
ECG 732 - Advanced Engineering Electromagnetics II  
ECG 733 - Plasma I

### *Electronics*

ECG 620 - Analog Integrated Circuit Design  
ECG 621 - Digital Integrated Circuit Design  
ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design  
ECG 722 - Mixed-Signal Circuit Design

### *Power Engineering*

ECG 642 - Power Electronics  
ECG 646 - Photovoltaic Devices and Systems  
ECG 740 - Computer Analysis Methods for Power Systems  
ECG 741 - Electric Power Distribution System Engineering  
ECG 742 - Power System Stability and Control  
ECG 743 - Smart Electrical Power Grid

### *Signal Processing*

ECG 680 - Discrete-Time Signal Processing  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 781 - Digital Filters  
ECG 782 - Multidimensional Digital Signal Processing  
ECG 783 - Adaptive Signal Processing with Neural Networks

### *Solid State Electronics*

ECG 651 - Electronic and Magnetic Materials and Devices  
ECG 652 - Optoelectronics  
ECG 653 - Introduction to Nanotechnology  
ECG 750 - Optical Electronics I  
ECG 752 - Physical Electronics  
ECG 753 - Advanced Topics in Semiconductor Devices I  
ECG 755 - Monolithic Integrated Circuit Fabrication  
ECG 756 - Advanced Topics in Semiconductor Devices II  
ECG 757 - Electron Transport Phenomena in Solid State Devices  
ECG 758 - Numerical Methods in Engineering

### **Minor Fields Courses – Credits: 9-18**

Select two advisor-approved minor fields and complete coursework in each single area totaling 9-18 credits, with a minimum overall average GPA of 3.33. The secondary minor can be from a field outside Electrical Engineering.

### *Communications*

ECG 662 - Advanced Digital Communications  
ECG 666 - Wireless and Mobile Communication Systems  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise

#### *Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture  
ECG 605 - Data Compression Systems  
ECG 607 - Biometrics  
ECG 608 - Digital Design Verification and Testing  
ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

#### *Control Systems Theory*

ECG 770 - Linear Systems Theory  
ECG 771 - Optimal and Modern Controls  
ECG 772 - Nonlinear Systems I  
ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

#### *Electromagnetics and Optics*

ECG 630 - Transmission Lines  
ECG 631 - Engineering Optics  
ECG 632 - Antenna Engineering  
ECG 633 - Active and Passive Microwave Engineering  
ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in Electromagnetics  
ECG 732 - Advanced Engineering Electromagnetics II  
ECG 733 - Plasma I

#### *Electronics*

ECG 620 - Analog Integrated Circuit Design  
ECG 621 - Digital Integrated Circuit Design  
ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design  
ECG 722 - Mixed-Signal Circuit Design

#### *Power Engineering*

ECG 642 - Power Electronics  
ECG 646 - Photovoltaic Devices and Systems  
ECG 740 - Computer Analysis Methods for Power Systems  
ECG 741 - Electric Power Distribution System Engineering  
ECG 742 - Power System Stability and Control  
ECG 743 - Smart Electrical Power Grid

#### *Signal Processing*

ECG 680 - Discrete-Time Signal Processing  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 781 - Digital Filters  
ECG 782 - Multidimensional Digital Signal Processing  
ECG 783 - Adaptive Signal Processing with Neural Networks

#### *Solid State Electronics*

ECG 651 - Electronic and Magnetic Materials and Devices  
ECG 652 - Optoelectronics  
ECG 653 - Introduction to Nanotechnology  
ECG 750 - Photonics  
ECG 752 - Physical Electronics  
ECG 753 - Advanced Topics in Semiconductor Devices I  
ECG 755 - Monolithic Integrated Circuit Fabrication  
ECG 756 - Advanced Topics in Semiconductor Devices II  
ECG 757 - Electron Transport Phenomena in Solid State Devices  
ECG 758 - Numerical Methods in Engineering

#### **Elective Courses – Credits: 9-18**

Complete 9-18 credits of 600- or 700-level MAT, PHY, AST, CEE, CEM, ECG, EGG, CS, ME, or other advisor-approved courses.

### **Dissertation – Credits: 18**

ECG 799 - Dissertation

*Total Credits Shared: 6*

Two courses can be double counted between Electrical Engineering Ph.D. and Mathematical Sciences M.S. degrees. Non-ECG courses must be applied towards non-ECG elective credits in the electrical engineering degree program pursued.

### Degree Requirements

1. A minimum of 84, 87, 90, or 93 credits (including thesis and dissertation credits) of graduate work is required for the Dual Electrical Engineering Ph.D. and Mathematical Sciences M.S. which corresponds to the choice of completing a Mathematics comprehensive exam or thesis, and the number of credits of formally approved graduate level courses applied toward the B.S. degree and used in the Electrical Engineering Integrated BS-PHD Track.
2. Two of the courses included in the degree program can be double counted Electrical Engineering M.S.E and Mathematical Sciences M.S. degrees. Non-ECG courses must be applied towards non-ECG elective credits in the electrical engineering degree program pursued.

### *Mathematical Sciences M.S*

1. Students completing a thesis must complete a minimum of 33 credit hours with a minimum GPA of 3.00.
2. Students completing the comprehensive exam must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
3. 21 credits of mathematics course work must be at the 700-level (excluding thesis).
4. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one

graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee.

5. The Graduate College requires a minimum of 50 percent of the total credits required to complete the graduate degree, exclusive of transferred credits and/or the thesis, must be earned at UNLV after admission to a graduate degree program.
6. Students must complete a final examination. This will be either an examination to defend the thesis or a written comprehensive examination based on requirements 1 and 2.
7. If the thesis option is chosen: In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

### *Electrical Engineering Ph.D.*

1. All Ph.D. students must satisfy the Ph.D. degree program admission requirements and be admitted to the Ph.D. program on a regular status.
2. Total credits required depends on the total number of approved graduate-level course work taken as technical electives (with a grade of B or better) during the senior year.
3. Complete a minimum of 60, 63, or 66 credits (including dissertation credits) respectively corresponding to 9, 6, or 3 credits of formally approved graduate level courses applied toward the B.S. degree yielding a total of 69 course credits. The final division of major, minor, and elective credits will be determined in consultation with the student's advisor.
4. Of the 69 required credits, a minimum of 33 credits must be in 700-level courses. Of these 33 credits, a minimum of 30 must be from formal courses. The student's doctoral

- advisory committee may add more requirements in accordance with the individual's background and field of study.
5. No more than 6 credits may be from Graduate Independent Study together with Graduate Seminar. No more than 12 credits of a combination of informal courses such as Graduate Independent Study, Special Topics, and Seminar may be applied to the degree program.
  6. Complete a minimum of 15 credits in an approved ECE major field, 9 credits an approved ECE minor (primary minor) field, and 9 credits in a second approved open minor (secondary minor) field. Of the 15 credits required in the ECE major field, a minimum of 9 credits must be completed in 700-level courses. A minimum GPA of 3.33 (B+=3.30) must be obtained in the major field. Of the 9 required credits in each minor field, a minimum of 6 credits must be in 700-level courses. A minimum GPA of 3.33 (B+=3.30) must be obtained in each of the minor fields.
  7. Informal courses (Graduate Independent Study, Graduate Seminar, and Special Topics) cannot be applied to the ECE major, ECE minor (primary minor) and the open minor (secondary minor) fields.
  8. All regular (full graduate standing) status graduate students must select a faculty advisor in their first semester.
  9. Students on academic probation may be transferred to the M.S.E. Program depending on the student's academic record. In such a case, the M.S.E. Program requirements must be satisfied. For example, only 6 credits of the informal courses may be applied to the M.S.E. degree program with the further constraint that up to 3 credits total of Independent Study in combination with Graduate Seminar may be in the 6 credits.
  10. Maintain a minimum overall grade point average (GPA) of 3.20, must maintain a minimum GPA of 3.20 each semester, and must complete all graduate level courses that apply towards their degree with a minimum GPA of 2.70 (B-) in each course. Grades below B- cannot be applied towards the

Ph.D. degree and must be repeated or replaced. A class grade below C (2.0) is grounds for initiating a program separation recommendation to the Graduate College. Ph.D. candidates who do not maintain an overall minimum GPA of 3.20, who do not maintain a GPA of 3.20 each semester, or who earn more than one grade below B- will either be placed on probation or expelled from the program. The Electrical and Computer Engineering Graduate Committee and/or the Graduate College will determine the terms of the student's probation in accordance with the rules of the Graduate College.

11. All regular status graduate students must file an approved program before the completion of their third semester. This program must be approved by the student's advisor and the graduate coordinator. All regular and provisional status graduate students must show satisfactory progress towards completion of their degree by completing at least six credits of their approved program per calendar year. If their progress towards their degree program is not satisfactory, students will either be put on probation or expelled from the program.
12. Before beginning a dissertation, students must have their dissertation topic approved by their advisor, and the necessary paper work including a dissertation prospectus must be filed with the Graduate College by the end of the third semester. The dissertation prospectus describes the dissertation topic and must include an introductory set of sentences, a well formed hypothesis or hypotheses (specifically italicized in the prospectus) accompanied by a motivation, objectives with major and alternative approaches to the studies, and conjectures of possible outcomes. Students are NOT allowed to take dissertation credits until their prospectus is approved. Credits taken before the approval date will NOT count towards the degree program.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

## Plan Graduation Requirements

1. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to graduate from both programs for the same semester.
2. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

### *Mathematical Sciences M.S*

1. The student must successfully complete a culminating experience.
2. If the exam option is chosen, the student must successfully pass a final comprehensive examination.
3. If the thesis option is chosen, the student must:
  - a. Submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
  - b. Submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### *Electrical Engineering Ph.D.*

1. During the first semester, a Ph.D. student must select a faculty advisor. The faculty advisor does not have to be the one to whom the student was assigned upon entering the Ph.D. program. In coordination with the faculty advisor, the student must also form a doctoral advisory committee. A doctoral advisory committee is composed of at least four members of the UNLV Graduate Faculty. Three of the faculty must be from the Department of Electrical and Computer Engineering. The fourth from a relevant supporting field having Full Graduate Faculty Status as recognized by the Graduate College.
2. Students admitted on provisional and/or conditional status are not allowed to take the

qualifying exam until their provisions and/or conditions have been met. Students taking the exam while on provisional or conditional status will be required to retake the exam regardless if one or all areas of the exam have been passed.

3. Provisional status students must complete all required supplementary work within one calendar year from the time of admission into the program with a grade of B (3.0) or better in each course.
4. Pass the Qualifying Exam within 2 semesters of being admitted to the Ph.D. program on a regular (full graduate standing) status. The Qualifying Exam is offered once every fall semester and once every spring semester. This exam cannot be taken more than twice.
  - a. The Qualifying Exam tests the student's general undergraduate knowledge of electrical engineering and computer engineering. To register for the Qualifying Exam, eligible students must notify the graduate coordinator no later than one month prior to the examination date.
  - b. All students must pass the Qualifying Exam within the first two semesters (excluding the summer semester) upon being admitted to the Ph.D. program on a regular status. If a student is required to take the qualifying exam and is not present to sit the exam, an automatic FAIL is assigned. Students who have not passed the Qualifying Exam within this timeframe will be terminated from the Ph.D. program. Students who have not passed the Qualifying Exam by their second attempt will be terminated from the Ph.D. program. Students in the Direct Ph.D. program who fail the Qualifying Exam on their second attempt within the two semester timeframe may elect to pursue a M.S. Degree by completing all of

- the requirements listed for that degree.
- c. The Qualifying Exam is a four and one-half hour exam covering questions in the following undergraduate electrical and computer engineering fields:
    - i. Communications
    - ii. Control System Theory
    - iii. Electromagnetics and Optics
    - iv. Electronics
    - v. Power
    - vi. Signal Processing
    - vii. Solid State
    - viii. Digital Logic Design
    - ix. Computer Architectures and Organization
    - x. Digital Electronics and VLSI Design
    - xi. Computer Communication Networks
  - d. To pass the qualifying exam requirement, the student must successfully complete any four of the eleven areas with a grade of PASS to complete the qualifying exam requirement within two sittings. If the student passes less than four areas on the first attempt, the student will receive a PASS for those individual areas successfully completed and will not be required to retake these areas on the second attempt. The exam is a closed note, closed book exam.
  - e. For more details on course specifics, exam logistics, appeal rights and procedure, and protocols regarding the qualifying exam, refer to the ECE department's Electrical Engineering Graduate Program Document.
5. In all Post-Bachelor's Tracks, a Ph.D. student must complete a minimum of 15 credits in an approved ECE major field in a single area of Electrical and Computer Engineering, 9 credits in an approved ECE minor field (primary minor) in a single but different area of Electrical and Computer Engineering, and another 9 credits in a second approved minor (secondary minor) field. Currently, the Department of Electrical and Computer Engineering at UNLV offers Communications, Computer Engineering, Control System Theory, Electromagnetics and Optics, Electronics, Power Systems, Signal Processing, and Solid State Materials and Devices as major fields. Specific courses that can be applied to specific fields are listed in detail in the Electrical Engineering Graduate Program Document.
    - a. Of the 15 credits required in the ECE major field, a minimum of 9 credits must be completed in 700-level courses. To complete the ECE major field requirement, the applied 15 credits of ECE major course work must attain a minimum overall GPA of 3.33 (B+=3.30).
    - b. Each student must complete two minor fields. To complete a minor field, a student must complete a minimum of 9 credits in a minor field and have an overall minimum GPA of 3.33 (B+=3.30) for the 9 minor field credits. Of the 9 required credits in each minor field, a minimum of 6 credits must be in 700-level courses. Courses that can be applied to specific minor fields are listed in detail in the Electrical Engineering Graduate Program Document. These courses may be applied to any designated field but may only be counted once. With the written approval of the major advisor and the student's advisory committee, the secondary minor may be a mixed minor field. A mixed minor field may be formed with courses inside and/or outside of the Electrical Engineering Department's approved fields (e.g., mathematics and physics, computer engineering and computer science,



physics, mechanical engineering, solid state and electromagnetics) A mixed minor may not be composed of courses in the Electrical Engineering Department that satisfy course work in the major and the other minor field. The only exception is when a course may be used in more than one field. In this case, the course may not be counted twice but may be used for either minor area. However, the student must complete at least one minor field (primary minor field) in Electrical Engineering in a single area.

6. After passing the Qualifying Exam, successfully completing all courses for a major field, and successfully completing all courses for the ECE minor field, students are eligible to take the Comprehensive Exam. All students must have passed the Comprehensive Exam within two semesters after successfully completing all required course work except for the 18 credits Dissertation. [NOTE: Up to 6 credits of Dissertation taken prior to the successful completion of the Preliminary Exam may count towards the degree program.] The Comprehensive Exam cannot be taken more than once per semester and cannot be taken more than twice.

a. The Comprehensive Exam tests the candidate's depth of knowledge in the candidate's chosen ECE major field and chosen ECE minor (primary minor) field. All students must have passed the Comprehensive Exam within two semesters after successfully completing all required course work (except for the 18 credits of Dissertation). The Comprehensive Exam is offered once every fall semester and once every spring semester. The Comprehensive Exam cannot be taken more than twice. Candidates who have not passed the Comprehensive Exam

within this timeframe (two consecutive sittings) will be terminated from the Ph.D. program. Candidates who have not passed the Comprehensive Exam following their second attempt will be terminated from the Ph.D. program.

b. Before a student is eligible to register for the Comprehensive Exam, the candidate must have obtained regular (full graduate standing) admission status, passed the Qualifying Exam, and must have successfully completed all of the course requirements for the ECE major field and the ECE minor (primary minor) field. The student must have acquired a minimum GPA of 3.33 in both the major and minor fields separately. If the minor field GPA is less than 3.33 and/or the major field GPA is less than 3.33, then the minor and/or minor field requirement has not been successfully completed. The candidate will not be allowed to take the Comprehensive Exam until both the major and minor 3.33 GPA requirements are fulfilled. Further, the student must have a minimum overall GPA of 3.2 and must have satisfied all other Ph.D. degree program admission requirements. If a student takes the Comprehensive Exam before any one of these requirements has been satisfied, the student will automatically receive a FAIL grade for the exam. At their discretion, the Graduate Committee may also count this failing grade as one of the student's attempts for the Comprehensive Exam. To register for the Comprehensive Exam, eligible students must notify the graduate coordinator no later than one month prior to the examination date.

- c. To pass the Comprehensive Exam, a student must pass a five-hour exam covering courses in his/her ECE major field and ECE minor (primary minor) field. A pass or fail grade will be given for the exam. The graduate committee will notify students of the results of the exam. The major and minor area exam will emphasize graduate coursework taken in the ECE major and ECE minor (primary minor; minor 1) fields. The exam will evaluate the student's ability to apply his/her theoretical and analytical abilities to problems in his/her ECE major and ECE minor (primary minor) field. However, the exam may require knowledge of undergraduate material related to the student's major and minor fields. Students should expect problems that require advanced thinking. Specific problems need not be familiar textbook problems nor may the student be necessarily familiar with the problem. A pass or fail grade will be given for the exam. The graduate committee will notify students of the exam results.
  - d. For more details on course specifics, exam logistics, appeal rights and procedure, and protocols regarding the comprehensive exam, refer to the ECE department's Electrical Engineering Graduate Program Document.
7. After successfully completing all required course work and passing the Comprehensive Exam, the candidate must pass the Preliminary Exam. The Preliminary Exam cannot be taken more than once per semester but may be repeated until passed.
- a. The Preliminary Exam evaluates the caliber of a student's dissertation topic. The Preliminary Exam cannot be taken more than once per semester but may be repeated until passed.
- b. To be eligible for the Preliminary Exam, a student must have passed the Comprehensive Exam, and have successfully completed all required course work except for the 18 credits of Dissertation.
  - c. Before the Preliminary Exam, a student must prepare a 10 to 20-page prospectus of his/her research. A copy of this prospectus must be submitted to the Graduate Committee and each member of the Ph.D. candidate's advisory committee at least two weeks prior to the Preliminary Exam.
  - d. The student must also notify the Graduate Committee and each member of their advisory committee of the date, time and location of their Preliminary Exam. This must be done at least two weeks prior to the Preliminary Exam.
  - e. During the Preliminary Exam, the student presents his/her prospectus to his advisory committee. To pass the Preliminary Exam, the student's advisory committee must unanimously approve the student's prospectus. Students who pass the Preliminary Exam are advanced to candidacy for the Ph.D.
8. Complete a minimum of 18 credits of Dissertation and complete a dissertation containing original research. Upon completion, the student must pass the Final Exam in which the student defends his/her dissertation. The Final Exam is the culminating experience of the PhD program.
- a. The Final Exam evaluates the Ph.D. candidate's dissertation. The Final Exam cannot be taken more than once per every three months but may be repeated until passed. To be eligible for the Final Exam, a Ph.D. candidate must have passed the Preliminary Exam, and have successfully completed all required course work including a minimum

of 18 credits of Dissertation. A minimum of 12 credits of Dissertation must be taken after the successful completion of the Preliminary Exam. A copy of the Ph.D. candidate's dissertation must be submitted to the Graduate Committee and each member of the Ph.D. candidate's advisory committee at least two weeks prior to the Final Exam. The Ph.D. candidate must also notify the Graduate Committee and each member of his/her advisory committee of the date, time, and location of his/her Final Exam at least two weeks prior to the Final Exam. During the Final Exam, the Ph.D. candidate will present his/her dissertation to their advisory committee. To pass the Final Exam, the Ph.D. candidate's advisory committee must unanimously approve the Ph.D. candidate's dissertation.

9. The Department of Electrical and Computer Engineering requires that the Ph.D. degree be completed within a period of six years from the time the candidate is fully admitted to the Ph.D. program. Further, courses taken more than six years prior to graduation cannot be applied toward the PhD degree without permission from the Graduate College. Students exceeding this time limit must formally write a letter requesting permission from both the Graduate Committee and the Graduate College to stay in the Ph.D. program and apply coursework towards the degree program. The formal letter must explain the circumstances of why the degree was not completed within the allotted timeframe and indicate the extended period of time needed to complete the degree.
10. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

11. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
12. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Dual Degree: Master of Science in Engineering - Electrical Engineering & Master of Science - Mathematical Sciences

### Plan Description

The dual M.S.E. – Electrical Engineering and the M.S. – Mathematical Sciences program is designed for those who want to pursue the M.S.E. degree in Electrical Engineering or a career in Electrical Engineering with emphasis in applied Mathematics. The program prepares graduate students with complementing educational components covering electrical engineering and mathematics, which is the basis of all engineering. The students graduating from this program will be well-prepared with a well-rounded background.

The Department of Electrical and Computer Engineering at UNLV offers a number of program options leading to the M.S.E. degree in the Field of Electrical Engineering. Specific major areas of study currently available include: Communications, Computer Engineering, Control System Theory, Electromagnetics and Optics, Electronics, Power Systems, Signal Processing, and Solid State Materials and Devices.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

Learning outcomes for each degree can be found below:

- Master of Science in Engineering - Electrical Engineering
- Master of Science - Mathematical Sciences

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Applicants must satisfy the minimum requirements of the M.S.E. – Electrical Engineering program and the MS – Mathematics program. If denied by one program, the applicant will have the option of proceeding with a single degree program with departmental approval.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### Subplan 1 Requirements: Standard Track

Total Credits Required: 54-57

#### Course Requirements

*Total Credits Required for the Mathematical Sciences M.S.: 30-33*

#### Required Courses – Credits: 6

Complete two of the following courses:

- MAT 707 - Real Analysis I
- MAT 709 - Complex Function Theory I
- MAT 765 - Advanced Numerical Analysis

#### Elective Courses – Credits: 21-24

Students completing the exam option must complete a minimum of 24 credits of MAT or STA elective courses (excluding MAT 711 & 712), and students completing the thesis option must complete a minimum of 21 credits of MAT or STA elective courses (excluding MAT 711 & 712). Other graduate-level courses may be taken with advisor-approval.

#### Thesis – Credits: 6 (Optional)

Complete 6 credits from one of the following courses:

- MAT 791 - Thesis
- STA 791 - Thesis

*Total Credits Required for the Electrical Engineering M.S.E.: 30*

**Core Courses – Credits: 9**

Complete a minimum of 3 credits in at least three of the following areas. Students in the comprehensive exam track must take all courses at the 700-level.

*Communications*

ECG 662 - Digital Communication Systems  
ECG 666 - Wireless and Mobile Communication Systems  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 763 - Advanced Digital Communication Systems

*Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture  
ECG 605 - Data Compression Systems  
ECG 607 - Biometrics  
ECG 608 - Digital Design Verification and Testing  
ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

*Control Systems Theory*

ECG 672 - Digital Control Systems  
ECG 770 - Linear Systems  
ECG 771 - Optimal and Modern Control  
ECG 772 - Nonlinear Systems

ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

*Electromagnetics and Optics*

ECG 630 - Transmission Lines  
ECG 631 - Engineering Optics  
ECG 632 - Antenna Engineering  
ECG 633 - Active and Passive Microwave Engineering  
ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in Electromagnetics  
ECG 732 - Advanced Engineering Electromagnetics II  
ECG 733 - Plasma I

*Electronics*

ECG 620 - Analog Integrated Circuit Design  
ECG 621 - Digital Integrated Circuit Design  
ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design  
ECG 722 - Mixed-Signal Circuit Design

*Power Engineering*

ECG 642 - Power Electronics  
ECG 646 - Photovoltaic Devices and Systems  
ECG 740 - Computer Analysis Methods for Power Systems  
ECG 741 - Electric Power Distribution System Engineering  
ECG 742 - Power System Stability and Control  
ECG 743 - Smart Electrical Power Grid

*Signal Processing*

ECG 680 - Discrete-Time Signal Processing  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 781 - Digital Filters  
ECG 782 - Multidimensional Digital Signal Processing  
ECG 783 - Adaptive Signal Processing with Neural Networks

*Solid State Electronics*

ECG 651 - Electronic and Magnetic Materials and Devices  
 ECG 652 - Optoelectronics  
 ECG 653 - Introduction to Nanotechnology  
 ECG 750 - Photonics  
 ECG 752 - Physical Electronics  
 ECG 753 - Advanced Topics in Semiconductor Devices I  
 ECG 755 - Monolithic Integrated Circuit Fabrication  
 ECG 756 - Advanced Topics in Semiconductor Devices II  
 ECG 757 - Electron Transport Phenomena in Solid State Devices  
 ECG 758 - Numerical Methods in Engineering

**Additional Core Courses – Credits: 9-12**

Complete 9-12 credits of additional core courses from the core courses in any of the areas listed above. Students in the comprehensive exam track must take all courses at the 700-level.

Students completing the comprehensive exam option must complete a minimum of 12 credits of electives, and students completing the thesis option must complete a minimum of 9 credits of electives.

**Elective Courses – Credits: 6-9**

Complete a minimum of 6-9 credits of 600- or 700-level MAT, PHY, AST, CEE, CEM, ECG, EGG, CS, ME, or other advisor-approved courses.

Students completing the comprehensive exam option must complete a minimum of 9 credits of electives, and students completing the thesis option must complete a minimum of 6 credits of electives.

**Thesis – Credits: 6 (Optional)**

ECG 797 - Electrical Engineering Thesis

*Total Credits Shared: 6*

Two courses can be double counted between Electrical Engineering M.S.E and Mathematical Sciences M.S. degrees. Non-ECG courses must be applied towards non-ECG elective credits in the electrical engineering degree program pursued.

Degree Requirements

1. A minimum of 54 or 57 credits (including thesis credits) of graduate work is required for the Dual Electrical Engineering M.S.E. and Mathematical Sciences M.S. which corresponds to the choice of completing a Mathematics comprehensive exam or thesis.
2. Two of the courses included in the degree program can be double counted Electrical Engineering M.S.E and Mathematical Sciences M.S. degrees. Non-ECG courses must be applied towards non-ECG elective credits in the electrical engineering degree program pursued.
3. If a thesis option is chosen: In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

*Mathematical Sciences M.S.*

1. Students completing a thesis must complete a minimum of 33 credit hours with a minimum GPA of 3.00.
2. Students completing the comprehensive exam must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
3. 21 credits of mathematics course work must be at the 700-level (excluding thesis).
4. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee.
5. The Graduate College requires a minimum of 50 percent of the total credits required to complete the graduate degree, exclusive of transferred credits and/or the thesis, must be earned at UNLV after admission to a graduate degree program.

6. Students must complete a final examination. This will be either an examination to defend the thesis or a written comprehensive examination based on requirements 1 and 2.

*Electrical Engineering M.S.E.*

1. Students must satisfy the M.S.E. - Electrical Engineering degree program admission requirements and be admitted to the M.S.E. - Electrical Engineering program with regular full graduate standing status, having met all conditions and provisions.
2. Students must complete a minimum of 30 credits of graduate level courses with an overall minimum GPA of 3.00 (B), a minimum GPA of 3.00 (B) each semester, and a minimum GPA of 2.70 (B-) in each class applied towards the 30 credits. Grades below B- are not counted towards the M.S.E. degree and must be repeated or replaced.
3. Students who do not maintain an overall GPA of 3.00 (B), a GPA of 3.00 (B) each semester, or who earn more than one grade below B- will either be placed on probation or expelled from the program. The Electrical and Computer Engineering Graduate Committee and/or the Graduate College will determine the terms of the student's probation in accordance with the rules of the Graduate College.
4. At the time of admission or no later than the first semester, the candidate must formally petition BOTH the graduate college and the ECE graduate committee to accept transfer credits and credits taken as a non-degree seeking graduate student to be applied to the M.S.E. program.
5. Students must select a faculty advisor in their first semester.
6. No more than 3 credits may be from Independent Study (which cumulatively includes Graduate Seminar) and no more than a total of 6 credits of the combination of Independent Study, Graduate Seminar, and Graduate Special Topics may be applied towards the M.S.E. degree program.
7. Students completing a Thesis:

1. A minimum of 18 core (formal) must be in core electrical engineering courses, of which 15 credits must be 700-level. This excludes Thesis, and informal courses (such as Special Topics, Graduate Seminar, and Independent Study).
2. Students must complete at least six credits of Electrical Engineering Thesis which culminates in the successful completion of a thesis oral exam and the submission of an approved thesis. Although Electrical Engineering Thesis can be taken repeatedly, no more than 6 credits can be applied towards the 30 credits required for the M.S.E. degree.
3. Before beginning a thesis, students must have their thesis topic approved by their advisor, and the necessary paper work must be filed with the Graduate College. The thesis prospectus describes the thesis topic and must include an introductory set of sentences, a well formed hypothesis or hypotheses (specifically italicized in the prospectus) accompanied by a motivation, objectives with major and alternative approaches to the studies, and conjectures of possible outcomes. Students are NOT allowed to take thesis credits until their thesis prospectus is approved. Credits taken before the approval date will NOT count towards the degree program.
4. The student must complete a thesis containing original research and publically defend it before his/her advisory committee at the Thesis Exam.
5. Prior to the student's defense of the thesis before his/her advisory committee, the student must submit a complete copy of the thesis to each member of his/her advisory

committee. This submission must occur at least two weeks prior to the date of the oral defense. The student must also notify each member of his/her advisory committee of the date, time and location of the oral defense of the thesis or project at least two weeks in advance.

6. Students who plan to continue their studies beyond the M.S.E. degree program are strongly encouraged to select this option.
7. A full graduate standing master's degree candidate who is interested in pursuing a doctoral degree may be allowed to take the Ph.D. qualifying exam without penalty during his/her period as an M.S.E. student. The exam may be taken as many times as desired but no more than once a semester at the time the exam is typically offered. The M.S.E. candidate must pass four areas of choice in a single sitting to satisfy the Qualifying Exam requirement. If the student successfully completes the Qualifying Exam requirement while pursuing the M.S.E. degree in Electrical Engineering with a thesis option in the Electrical and Computer Engineering department at UNLV, the student will have automatically fulfilled the Qualifying Exam requirement upon admission to the Ph.D. program in the Electrical and Computer Engineering program at UNLV. Once the student receives an M.S.E. degree in the field of Electrical Engineering, the student must abide by the requirements outlined in the Ph.D. program. This option is not available to non-degree students.
8. Students completing the Comprehensive Exam:

1. A minimum of 21 credits must be in core (formal) electrical engineering 700-level courses excluding informal courses (such as Independent Study, Graduate Seminar, and Special Topics).
2. Pass a comprehensive exam on graduate level coursework in the student's specialty area.
3. The exam may be taken in the last two semesters of the student's M.S.E. program.
4. The student may not take the exam until all course work pertaining to the exam is completed. For clarity, students enrolled in courses pertaining to the comprehensive exam cannot take the comprehensive exam. Within the six year limit, the exam may be repeated until passed but cannot be taken more than once per semester. Prior to the end of the first week of classes in the student's last two semesters, the student must announce to the ECE Graduate Coordinator his/her intention of taking the exam, the major field to be examined, and at least two courses taken in that field.
5. The Course Only Option is a final advanced professional degree option in that students who complete the Course Only Option will not be considered for admission into any of the department's Ph.D. program options.

#### Graduation Requirements

1. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to graduate from both programs for the same semester.
2. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.



*Mathematical Sciences M.S.*

1. The student must successfully complete a culminating experience.
2. If the exam option is chosen, the student must successfully pass a final comprehensive examination.
3. If the thesis option is chosen, the student must:
  1. Submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
  2. Submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

*Electrical Engineering M.S.E.*

1. The student must successfully complete a culminating experience.
2. If the exam option is chosen, the student must pass a final comprehensive examination.
3. If the thesis option is chosen, the student must:
  1. Submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
  2. Submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

**Subplan 2 Requirements: Integrated BS-MS Track**

Total Credits Required: 45-54

Course Requirements

*Total Credits Required for the Mathematical Sciences M.S.: 30-33*

**Required Courses – Credits: 6**

Complete two of the following courses:

MAT 707 - Real Analysis I  
MAT 709 - Complex Function Theory I  
MAT 765 - Advanced Numerical Analysis

**Elective Courses – Credits: 21-24**

Students completing the exam option must complete a minimum of 24 credits of MAT or STA elective courses (excluding MAT 711 & 712), and students completing the thesis option must complete a minimum of 21 credits of MAT or STA elective courses (excluding MAT 711 & 712). Other graduate-level courses may be taken with advisor-approval.

**Thesis – Credits: 6 (Optional)**

Complete 6 credits from one of the following courses:

MAT 791 - Thesis  
STA 791 - Thesis

*Total Credits Required for the Electrical Engineering M.S.E.: 21-27*

**Core Courses – Credits: 0-9**

Complete a minimum of 0-3 credits in at least three of the following areas:

*Communications*

ECG 662 - Digital Communication Systems  
ECG 666 - Wireless and Mobile Communication Systems  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 763 - Advanced Digital Communication Systems

*Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture  
ECG 605 - Data Compression Systems  
ECG 607 - Biometrics  
ECG 608 - Digital Design Verification and Testing  
ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

#### *Control Systems Theory*

ECG 672 - Digital Control Systems  
ECG 770 - Linear Systems  
ECG 771 - Optimal and Modern Control  
ECG 772 - Nonlinear Systems  
ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

#### *Electromagnetics and Optics*

ECG 630 - Transmission Lines  
ECG 631 - Engineering Optics  
ECG 632 - Antenna Engineering  
ECG 633 - Active and Passive Microwave Engineering  
ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in Electromagnetics  
ECG 732 - Advanced Engineering Electromagnetics II  
ECG 733 - Plasma I

#### *Electronics*

ECG 620 - Analog Integrated Circuit Design  
ECG 621 - Digital Integrated Circuit Design  
ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design  
ECG 722 - Mixed-Signal Circuit Design

#### *Power Engineering*

ECG 642 - Power Electronics  
ECG 646 - Photovoltaic Devices and Systems  
ECG 740 - Computer Analysis Methods for Power Systems  
ECG 741 - Electric Power Distribution System Engineering  
ECG 742 - Power System Stability and Control  
ECG 743 - Smart Electrical Power Grid

#### *Signal Processing*

ECG 680 - Discrete-Time Signal Processing  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 781 - Digital Filters  
ECG 782 - Multidimensional Digital Signal Processing  
ECG 783 - Adaptive Signal Processing with Neural Networks

#### *Solid State Electronics*

ECG 651 - Electronic and Magnetic Materials and Devices  
ECG 652 - Optoelectronics  
ECG 653 - Introduction to Nanotechnology  
ECG 750 - Photonics  
ECG 752 - Physical Electronics  
ECG 753 - Advanced Topics in Semiconductor Devices I  
ECG 755 - Monolithic Integrated Circuit Fabrication  
ECG 756 - Advanced Topics in Semiconductor Devices II  
ECG 757 - Electron Transport Phenomena in Solid State Devices  
ECG 758 - Numerical Methods in Engineering

#### **Additional Core Courses – Credits: 0-9**

Complete 0-9 credits of additional core courses from the core courses in any of the areas listed above.

#### **Elective Courses – Credits: 0-6**

Complete 0-6 credits of 600- or 700-level MAT, PHY, AST, CEE, CEM, ECG, EGG, CS, ME, or other advisor-approved courses.

#### **Thesis – Credits: 6**

## ECG 797 - Electrical Engineering Thesis

### *Total Credits Shared: 6*

Two courses can be double counted between Electrical Engineering M.S.E and Mathematical Sciences M.S. degrees. Non-ECG courses must be applied towards non-ECG elective credits in the electrical engineering degree program pursued.

### Degree Requirements

1. A minimum of 45, 48, 51, or 54 credits (including thesis credits) of graduate work is required for the Dual Electrical Engineering M.S.E. and Mathematical Sciences M.S. which corresponds to the choice of completing a Mathematics comprehensive exam or thesis, and the number of credits of formally approved graduate level courses applied toward the B.S. degree and used in the Electrical Engineering Integrated BS-MS Track.
2. Two of the courses included in the degree program can be double counted Electrical Engineering M.S.E and Mathematical Sciences M.S. degrees. Non-ECG courses must be applied towards non-ECG elective credits in the electrical engineering degree program pursued.

### *Mathematical Sciences M.S.*

1. Students completing a thesis must complete a minimum of 33 credit hours with a minimum GPA of 3.00.
2. Students completing the comprehensive exam must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
3. 21 credits of mathematics course work must be at the 700-level (excluding thesis)
4. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee.

5. The Graduate College requires a minimum of 50 percent of the total credits required to complete the graduate degree, exclusive of transferred credits and/or the thesis, must be earned at UNLV after admission to a graduate degree program.
6. Students must complete a final examination. This will be either an examination to defend the thesis or a written comprehensive examination based on requirements 1 and 2.
7. If the thesis option is chosen: In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

### *Electrical Engineering M.S.E.*

1. Students must satisfy the M.S.E. - Electrical Engineering degree program admission requirements and be admitted to the M.S.E. - Electrical Engineering program with regular full graduate standing status, having met all conditions and provisions.
2. Total credits required depends on the total number of approved graduate-level course work taken as technical electives (with a grade of B or better) during the senior year.
3. Complete a minimum of 21, 24, or 27 credits (including thesis credits) in the Integrated BS-MS track program respectively corresponding to 9, 6, or 3 credits of formally approved graduate level courses applied toward the B.S. degree yielding a total of 30 course credits. The final division of major, minor, and elective credits will be determined in consultation with the student's advisor.
4. Students must complete all courses with an overall minimum GPA of 3.00 (B), a minimum GPA of 3.00 (B) each semester, and a minimum GPA of 2.70 (B-) in each class applied towards the 30 credits. Grades below B- are not counted towards the

- M.S.E. degree and must be repeated or replaced.
5. Students who do not maintain an overall GPA of 3.00 (B), a GPA of 3.00 (B) each semester, or who earn more than one grade below B- will either be placed on probation or expelled from the program. The Electrical and Computer Engineering Graduate Committee and/or the Graduate College will determine the terms of the student's probation in accordance with the rules of the Graduate College.
  6. At the time of admission or no later than the first semester, the candidate must formally petition BOTH the graduate college and the ECE graduate committee to accept transfer credits and credits taken as a non-degree seeking graduate student to be applied to the M.S.E. program.
  7. Students must select a faculty advisor in their first semester.
  8. A minimum of 18 credits must be in core (formal) electrical engineering courses, of which 15 credits must be 700-level. This excludes Thesis credits, and informal courses (such as Special Topics, Graduate Seminar, and Independent Study).
  9. No more than 3 credits may be from Independent Study (which cumulatively includes Graduate Seminar) and no more than a total of 6 credits of the combination of Independent Study, Graduate Seminar, and Graduate Special Topics may be applied towards the M.S.E. degree program.
  10. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
  11. Students must complete a thesis.
    1. Students must complete at least 6 credits of Thesis which culminates in the successful completion of a thesis oral exam and the submission of an approved thesis. Although Electrical Engineering Thesis can be taken repeatedly, no more than 6 credits can be applied towards the 30 credits required for the M.S.E. degree.
    2. Before beginning a thesis, students must have their thesis topic approved by their advisor, and the necessary paper work must be filed with the Graduate College. The thesis prospectus describes the thesis topic and must include an introductory set of sentences, a well formed hypothesis or hypotheses (specifically italicized in the prospectus) accompanied by a motivation, objectives with major and alternative approaches to the studies, and conjectures of possible outcomes. Students are NOT allowed to take thesis credits until their thesis prospectus is approved. Credits taken before the approval date will NOT count towards the degree program.
    3. The student must complete a thesis containing original research and publically defend it before his/her advisory committee at the Thesis Exam.
    4. Prior to the student's defense of the thesis before his/her advisory committee, the student must submit a complete copy of the thesis to each member of his/her advisory committee. This submission must occur at least two weeks prior to the date of the oral defense. The student must also notify each member of his/her advisory committee of the date, time and location of the oral defense of the thesis or project at least two weeks in advance.
    5. Students who plan to continue their studies beyond the M.S.E. degree program are strongly encouraged to select this option.

12. A full graduate standing master's degree candidate who is interested in pursuing a doctoral degree may be allowed to take the Ph.D. qualifying exam without penalty during his/her period as an M.S.E. student. The exam may be taken as many times as desired but no more than once a semester at the time the exam is typically offered. The M.S.E. candidate must pass four areas of choice in a single sitting to satisfy the Qualifying Exam requirement. If the student successfully completes the Qualifying Exam requirement while pursuing the M.S.E. degree in Electrical Engineering with a thesis option in the Electrical and Computer Engineering department at UNLV, the student will have automatically fulfilled the Qualifying Exam requirement upon admission to the Ph.D. program in the Electrical and Computer Engineering program at UNLV. Once the student receives an M.S. degree in the field of Electrical Engineering, the student must abide by the requirements outlined in the Ph.D. program. This option is not available to non-degree students.

#### Graduation Requirements

1. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to graduate from both programs for the same semester.
2. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

#### *Mathematical Sciences M.S.*

1. The student must successfully complete a culminating experience.
2. If the exam option is chosen, the student must successfully pass a final comprehensive examination.
3. If the thesis option is chosen, the student must:
  1. Submit and successfully defend his/her thesis by the posted deadline. The defense must be

advertised and is open to the public.

2. Submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### *Electrical Engineering M.S.E.*

1. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
2. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## Master of Science in Engineering - Electrical Engineering

### Plan Description

The Department of Electrical and Computer Engineering at UNLV offers a number of program degree options leading to the Master of Science in Engineering (M.S.E.) - Electrical Engineering. Specific areas of study that are currently available include Communications, Computer Engineering, Control System Theory, Electromagnetics and Optics, Electronics, Power Systems, Signal Processing, and Solid State Materials and Devices. The following degree options are available: M.S.E. - Electrical Engineering with thesis option, M.S.E. - Electrical Engineering with course only option, M.S.E. - Electrical Engineering Integrated BS-MS track option, and M.S.E. - Electrical Engineering dual degree option. The M.S.E. - Electrical Engineering thesis option culminates with a thesis which prepares the student for a Ph.D. experience if higher education is desired. The course only option is a final advanced professional degree option culminating with a comprehensive exam that must be passed in the student's specialty area. The Integrated BS-MS track option is for UNLV graduates who excel in their ECE UNLV undergraduate programs wanting to attain a M.S.E. or Ph.D. degree at UNLV in ECE with the thesis option. The dual degree program allows the student to complete a M.S.E. - Electrical Engineering degree and a Masters of Science in Mathematics degree jointly [Refer to Dual Degree: Master of Science in Engineering - Electrical Engineering and Master of Science - Mathematical Sciences].

**For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applications are considered on an individual basis. Candidates can be admitted on a regular (full graduate standing) or provisional status. Qualified applicants who are not admitted on either status can take graduate courses as a non-degree seeking graduate student. Up to 15 UNLV credits taken as a non-degree seeking graduate student at UNLV can be applied towards an M.S.E. degree. Potentially, six graduate credits taken at another regionally accredited university [Graduate College Policy] may be transferred into the M.S.E. degree program at UNLV. At most, only 15 credits of a combination of non-UNLV course credits and ECE UNLV course credits taken as a non-seeking graduate student may be applied to the M.S.E. program. Courses with a grade less than B (3.0) cannot be applied to the M.S.E. program. Further, the courses must not have been or will be applied to different degree program. Note that informal course credits will not be transferred into a M.S.E. degree program. Informal courses such as Graduate Independent Study and seminar taken as a non-degree seeking student cannot be applied towards an M.S.E. degree. Non-degree seeking students can count Electrical & Computer Engineering Graduate Special Topics towards the program degree as long as they adhere to the conditions of the particular program option regarding informal course credits.

To be considered for admission to the M.S.E. program, an applicant must:

1. Have a Bachelor of Science (B.S.) degree in electrical engineering, computer engineering or a closely related discipline.
  1. Applicants who possess a bachelor's degree in a closely related discipline, such as physics or mathematics, may be admitted on conditional and/or provisional status. These students will be required to complete certain undergraduate and/or graduate courses before they can attain regular status. The graduate committee determines these courses on an individual basis.
  2. Graduates with degrees in engineering technology ordinarily

- have an inadequate background to be admitted to the graduate program.
2. Have a minimum grade point average (GPA) of 3.00 (A=4.00) for their bachelor's degree. Applicants who have an overall GPA below 3.00 must submit Graduate Record Examination (GRE) scores {scaled score and percentile score in quantitative, verbal reasoning, and analytical writing} to the Electrical and Computer Engineering Department. These applicants may be admitted subject to the discretion and possible further requirements of the Electrical and Computer Engineering Graduate Committee. Applicants who want to be considered for an assistantship, or who feel that their GRE scores will enhance their chances for admission, are strongly encouraged to submit GRE scores.
  3. Submit GRE scaled and percentile scores in quantitative, verbal reasoning, and analytical writing to the Department of Electrical and Computer Engineering if the applicant did not obtain his bachelor's degree from an ABET accredited institution, if the applicant is interested in a teaching assistantship, or if the applicant received a Bachelor's Degree in Electrical and Computer Engineering more than five years prior to the first day of the first semester of the degree program applied for. Interpretation of the scores is at the discretion of the Electrical and Computer Engineering Graduate Committee. (An applicant possessing a bachelor's degree from an ABET accredited institution within the past five years is not required to submit GRE scores.)
  4. Submit a completed application prior to the department's admission deadline.
    1. Completed online application.
    2. Submit official transcripts of all college-level work to the Graduate College.
    3. Submit an additional set of transcripts of all college-level work directly to the Department of Electrical and Computer Engineering.
  4. Submit a one page written statement of purpose indicating the applicant's research interests, motivations, and objectives.
    1. In the statement of purpose, the applicant must explicitly identify his/her areas of interest from the following list of areas offered at UNLV in the ECE Department: Communications, Computer Engineering, Control Systems, Electromagnetics and Optics, Electronics, Power Systems, Signal Processing, and Solid State Materials and Devices (which includes Nanotechnology).
    2. Applicants are required to account for all time beyond the Bachelor degree indicating how they have developed professionally.
    3. Applicants transferring from other graduate programs must justify why they are leaving that program to join our program.
    4. Applicants receiving grades less than B in a graduate course elsewhere may not be admitted to the graduate program without a well justified explanation. Poor performance in course work in the program that the student is transferring from may be a cause for denial of admission. It will be the graduate committee's discretion whether to allow or deny admission.

5. Submit three dated letters of recommendation concerning the applicant's potential for succeeding in the graduate program. If the applicant has attended a university or is currently enrolled in a program beyond the bachelor degree, then the letters of recommendation should be solicited from that university or program. If the applicant has been out of school for an extended period of time, then letters should be solicited from the professional community that can comment on the applicant's technical background and/or from the applicant's most recent academic institution. Letters of recommendation written beyond a six-month period prior to applying for admission to our graduate program will not be accepted. Strong letters of recommendation illustrate technical talent and professional accomplishments beyond the grade point average or course grade. The graduate committee is interested in the applicant's technical, conceptual, verbal, ethical, and social skills. The graduate committee is interested in the applicant's ability to perform research with evidence to substantiate claims made. Note that letters from professors that casually know the applicant will not help in the admission process.
6. Application deadlines are February 1st for admission in the fall of the same year and October 1st for admission in the spring of the subsequent year.
5. Before international applicants can be considered for admission, the Graduate College requires that all international applicants take the Test of English as a Foreign Language (TOEFL) and obtain a minimum score of 550 or 85 on the

Michigan Test. Students whose first language is not English may be required to take and pass the English as a Second Language Placement Test upon arrival at UNLV. If necessary, they will be required to take English as a Second Language (ESL) courses at UNLV.

6. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

The Integrated BS-MS Track program allows select UNLV undergraduates to pursue the Electrical Engineering M.S.E. degree at UNLV. The program provides an opportunity for those undergraduates who have taken either 9, 6, or 3 graduate-level electrical and computer engineering course credits applied toward their undergraduate electrical/computer engineering degrees, to complete the respectively corresponding M.S. in Engineering with a total of either 21, 24, or 27 as opposed to the 30 credits required for Thesis Track. Students admitted to the Integrated BS-MS Track program are required to write a thesis.

To be considered for admission to the Integrated BS-MS Track, an applicant must:

1. Have a minimum overall grade point average (GPA) of 3.5 (A = 4.00) for their B.S. degree in electrical engineering or computer engineering at UNLV.
2. Have completed up to a maximum of 9 credits of formal Graduate College curriculum approved 600/700 level courses (which excludes informal courses such as Graduate Independent Study, Graduate Seminar, and Special Topics) which were applied towards the student's B.S. degree. Each graduate level course must have been completed with a minimum grade of B (3.0).

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**



*See Subplan Requirements below.*

**Subplan 1 Requirements: Comprehensive Exam Track**

Total Credits Required: 30

Course Requirements

**Core Courses – Credits: 9**

Complete a minimum of 3 credits in at least three of the following areas:

*Communications*

ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 763 - Advanced Digital Communication Systems

*Computer Engineering*

ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

*Control Systems Theory*

ECG 770 - Linear Systems  
ECG 771 - Optimal and Modern Control  
ECG 772 - Nonlinear Systems  
ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

*Electromagnetics and Optics*

ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in Electromagnetics  
ECG 732 - Advanced Engineering Electromagnetics II  
ECG 733 - Plasma I

*Electronics*

ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design  
ECG 722 - Mixed-Signal Circuit Design

*Power Engineering*

ECG 740 - Computer Analysis Methods for Power Systems  
ECG 741 - Electric Power Distribution System Engineering  
ECG 742 - Power System Stability and Control  
ECG 743 - Smart Electrical Power Grid

*Signal Processing*

ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 781 - Digital Filters  
ECG 782 - Multidimensional Digital Signal Processing  
ECG 783 - Adaptive Signal Processing with Neural Networks

*Solid State Electronics*

ECG 750 - Photonics  
ECG 752 - Physical Electronics  
ECG 753 - Advanced Topics in Semiconductor Devices I  
ECG 755 - Monolithic Integrated Circuit Fabrication  
ECG 756 - Advanced Topics in Semiconductor Devices II  
ECG 757 - Electron Transport Phenomena in Solid State Devices  
ECG 758 - Numerical Methods in Engineering

**Additional Core Courses – Credits: 12**

Complete 12 credits of 700-level additional core courses from the core courses in any of the areas listed above.

### **Elective Courses – Credits 9**

Complete a minimum of 9 credits of 600- or 700-level MAT, PHY, AST, CEE, CEM, ECG, EGG, CS, ME, or other advisor-approved courses.

### **Degree Requirements**

1. Students must satisfy the M.S.E. - Electrical Engineering degree program admission requirements and be admitted to the M.S.E. - Electrical Engineering program with regular full graduate standing status, having met all conditions and provisions.
2. Students must complete a minimum of 30 credits of graduate level courses with an overall minimum GPA of 3.00 (B), a minimum GPA of 3.00 (B) each semester, and a minimum GPA of 2.70 (B-) in each class applied towards the 30 credits. Grades below B- are not counted towards the M.S.E. degree and must be repeated or replaced.
3. Students who do not maintain an overall GPA of 3.00 (B), a GPA of 3.00 (B) each semester, or who earn more than one grade below B- will either be placed on probation or expelled from the program. The Electrical and Computer Engineering Graduate Committee and/or the Graduate College will determine the terms of the student's probation in accordance with the rules of the Graduate College.
4. At the time of admission or no later than the first semester, the candidate must formally petition BOTH the graduate college and the ECE graduate committee to accept transfer credits and credits taken as a non-degree seeking graduate student to be applied to the M.S.E. program.
5. Students must select a faculty advisor in their first semester.
6. A minimum of 21 credits must be in core electrical engineering 700-level courses excluding informal courses (such as

Independent Study, Graduate Seminar, and Special Topics).

7. No more than 3 credits may be from Independent Study (which cumulatively includes Graduate Seminar) and no more than a total of 6 credits of the combination of Independent Study, Graduate Seminar, and Graduate Special Topics may be applied towards the M.S.E. degree program.
8. Pass a comprehensive exam on graduate level coursework in the student's specialty area.
  1. The exam may be taken in the last two semesters of the student's M.S.E. program.
  2. The student may not take the exam until all course work pertaining to the exam is completed. For clarity, students enrolled in courses pertaining to the comprehensive exam cannot take the comprehensive exam. Within the six year limit, the exam may be repeated until passed but cannot be taken more than once per semester. Prior to the end of the first week of classes in the student's last two semesters, the student must announce to the ECE Graduate Coordinator his/her intention of taking the exam, the major field to be examined, and at least two courses taken in that field.
9. The Comprehensive Exam Track is a final advanced professional degree option in that students who complete this track will not be considered for admission into any of the department's Ph.D. program options.

### **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must pass a final comprehensive exam.

### **Subplan 2 Requirements: Thesis Track**

Total Credits Required: 30

Course Requirements

**Core Courses – Credits: 9**

Complete a minimum of 3 credits in at least three of the following areas:

*Communications*

ECG 662 - Digital Communication Systems  
ECG 666 - Wireless and Mobile Communication Systems  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 763 - Advanced Digital Communication Systems

*Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture  
ECG 605 - Data Compression Systems  
ECG 607 - Biometrics  
ECG 608 - Digital Design Verification and Testing  
ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

*Control Systems Theory*

ECG 672 - Digital Control Systems  
ECG 770 - Linear Systems  
ECG 771 - Optimal and Modern Control  
ECG 772 - Nonlinear Systems

ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

*Electromagnetics and Optics*

ECG 630 - Transmission Lines  
ECG 631 - Engineering Optics  
ECG 632 - Antenna Engineering  
ECG 633 - Active and Passive Microwave Engineering  
ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in Electromagnetics  
ECG 732 - Advanced Engineering Electromagnetics II  
ECG 733 - Plasma I

*Electronics*

ECG 620 - Analog Integrated Circuit Design  
ECG 621 - Digital Integrated Circuit Design  
ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design  
ECG 722 - Mixed-Signal Circuit Design

*Power Engineering*

ECG 642 - Power Electronics  
ECG 646 - Photovoltaic Devices and Systems  
ECG 740 - Computer Analysis Methods for Power Systems  
ECG 741 - Electric Power Distribution System Engineering  
ECG 742 - Power System Stability and Control  
ECG 743 - Smart Electrical Power Grid

*Signal Processing*

ECG 680 - Discrete-Time Signal Processing  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 781 - Digital Filters  
ECG 782 - Multidimensional Digital Signal Processing  
ECG 783 - Adaptive Signal Processing with Neural Networks

*Solid State Electronics*

ECG 651 - Electronic and Magnetic Materials and Devices  
 ECG 652 - Optoelectronics  
 ECG 653 - Introduction to Nanotechnology  
 ECG 750 - Photonics  
 ECG 752 - Physical Electronics  
 ECG 753 - Advanced Topics in Semiconductor Devices I  
 ECG 755 - Monolithic Integrated Circuit Fabrication  
 ECG 756 - Advanced Topics in Semiconductor Devices II  
 ECG 757 - Electron Transport Phenomena in Solid State Devices  
 ECG 758 - Numerical Methods in Engineering

**Additional Core Courses – Credits: 9**

Complete 9 credits of additional core courses from the core courses in any of the areas listed above.

**Elective Courses – Credits: 6**

Complete a minimum of 6 credits of 600- or 700-level MAT, PHY, AST, CEE, CEM, ECG, EGG, CS, ME, or other advisor-approved courses.

**Thesis – Credits: 6**

ECG 797 - Electrical Engineering Thesis

Degree Requirements

1. Students must satisfy the M.S.E. - Electrical Engineering degree program admission requirements and be admitted to the M.S.E. - Electrical Engineering program with regular full graduate standing status, having met all conditions and provisions.
2. Students must complete a minimum of 30 credits of graduate level courses with an overall minimum GPA of 3.00 (B), a minimum GPA of 3.00 (B) each semester, and a minimum GPA of 2.70 (B-) in each class applied towards the 30 credits. Grades below B- are not counted towards the M.S.E. degree and must be repeated or replaced.
3. Students who do not maintain an overall GPA of 3.00 (B), a GPA of 3.00 (B) each semester, or who earn more than one grade below B- will either be placed on probation

or expelled from the program. The Electrical and Computer Engineering Graduate Committee and/or the Graduate College will determine the terms of the student's probation in accordance with the rules of the Graduate College.

4. At the time of admission or no later than the first semester, the MS candidate must formally petition BOTH the graduate college and the ECE graduate committee to accept transfer credits and credits taken as a non-degree seeking graduate student to be applied to the M.S.E. program.
5. Students must select a faculty advisor in their first semester.
6. A minimum of 18 credits must be in core (formal) electrical engineering courses, of which 15 credits must be 700-level. This excludes Thesis credits, and informal courses (such as Special Topics, Graduate Seminar, and Independent Study).
7. No more than 3 credits may be from Independent Study (which cumulatively includes Graduate Seminar) and no more than a total of 6 credits of the combination of Independent Study, Graduate Seminar, and Graduate Special Topics may be applied towards the M.S.E. degree program.
8. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
9. Students must complete a thesis.
  1. Students must complete at least 6 credits of Thesis which culminates in the successful completion of a thesis oral exam and the submission of an approved thesis. Although Electrical Engineering Thesis can be taken repeatedly, no more than 6 credits can be applied towards the 30 credits required for the M.S.E. degree.

2. Before beginning a thesis, students must have their thesis topic approved by their advisor, and the necessary paper work must be filed with the Graduate College. The thesis prospectus describes the thesis topic and must include an introductory set of sentences, a well formed hypothesis or hypotheses (specifically italicized in the prospectus) accompanied by a motivation, objectives with major and alternative approaches to the studies, and conjectures of possible outcomes. Students are NOT allowed to take thesis credits until their thesis prospectus is approved. Credits taken before the approval date will NOT count towards the degree program.
  3. The student must complete a thesis containing original research and publically defend it before his/her advisory committee at the Thesis Exam.
  4. Prior to the student's defense of the thesis before his/her advisory committee, the student must submit a complete copy of the thesis to each member of his/her advisory committee. This submission must occur at least two weeks prior to the date of the oral defense. The student must also notify each member of his/her advisory committee of the date, time and location of the oral defense of the thesis or project at least two weeks in advance.
  5. Students who plan to continue their studies beyond the M.S.E. degree program are strongly encouraged to select this option.
10. A full graduate standing master's degree candidate who is interested in pursuing a doctoral degree may be allowed to take the Ph.D. qualifying exam without penalty during his/her period as an M.S.E. student. The exam may be taken as many times as

desired but no more than once a semester at the time the exam is typically offered. The M.S.E. candidate must pass four areas of choice in a single sitting to satisfy the Qualifying Exam requirement. If the student successfully completes the Qualifying Exam requirement while pursuing the M.S.E. degree in Electrical Engineering with a thesis option in the Electrical and Computer Engineering department at UNLV, the student will have automatically fulfilled the Qualifying Exam requirement upon admission to the Ph.D. program in the Electrical and Computer Engineering program at UNLV. Once the student receives an M.S. degree in the field of Electrical Engineering, the student must abide by the requirements outlined in the Ph.D. program. This option is not available to non-degree students.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 3 Requirements: Integrated BS-MS Track**

Total Credits Required: 21-27

#### Course Requirements

#### **Core Courses – Credits: 0-9**

Complete a minimum of 0-3 credits in at least three of the following areas:

#### *Communications*

ECG 662 - Digital Communication Systems  
ECG 666 - Wireless and Mobile Communication

## Systems

ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 763 - Advanced Digital Communication Systems

## *Computer Engineering*

ECG 600 - Computer Communication Networks  
ECG 604 - Modern Processor Architecture  
ECG 605 - Data Compression Systems  
ECG 607 - Biometrics  
ECG 608 - Digital Design Verification and Testing  
ECG 700 - Advanced Computer System Architecture  
ECG 701 - Reliable Design of Digital Systems  
ECG 702 - Interconnection Networks for Parallel Processing Applications  
ECG 704 - Coding with Applications in Computers and Communication Media  
ECG 706 - Analysis of Telecommunication and Data Networks  
ECG 707 - Logic Synthesis Engineering  
ECG 709 - Synthesis and Optimization of Digital Systems

## *Control Systems Theory*

ECG 672 - Digital Control Systems  
ECG 770 - Linear Systems  
ECG 771 - Optimal and Modern Control  
ECG 772 - Nonlinear Systems  
ECG 774 - Stochastic Control  
ECG 776 - Adaptive Control

## *Electromagnetics and Optics*

ECG 630 - Transmission Lines  
ECG 631 - Engineering Optics  
ECG 632 - Antenna Engineering  
ECG 633 - Active and Passive Microwave Engineering  
ECG 730 - Advanced Engineering Electromagnetics I  
ECG 731 - Theoretical Techniques in

## Electromagnetics

ECG 732 - Advanced Engineering Electromagnetics II  
ECG 733 - Plasma I

## *Electronics*

ECG 620 - Analog Integrated Circuit Design  
ECG 621 - Digital Integrated Circuit Design  
ECG 720 - Advanced Analog IC Design  
ECG 721 - Memory Circuit Design  
ECG 722 - Mixed-Signal Circuit Design

## *Power Engineering*

ECG 642 - Power Electronics  
ECG 646 - Photovoltaic Devices and Systems  
ECG 740 - Computer Analysis Methods for Power Systems  
ECG 741 - Electric Power Distribution System Engineering  
ECG 742 - Power System Stability and Control  
ECG 743 - Smart Electrical Power Grid

## *Signal Processing*

ECG 680 - Discrete-Time Signal Processing  
ECG 760 - Random Processes in Engineering Problems  
ECG 762 - Detection and Estimation of Signals in Noise  
ECG 781 - Digital Filters  
ECG 782 - Multidimensional Digital Signal Processing  
ECG 783 - Adaptive Signal Processing with Neural Networks

## *Solid State Electronics*

ECG 651 - Electronic and Magnetic Materials and Devices  
ECG 652 - Optoelectronics  
ECG 653 - Introduction to Nanotechnology  
ECG 750 - Photonics  
ECG 752 - Physical Electronics  
ECG 753 - Advanced Topics in Semiconductor Devices I  
ECG 755 - Monolithic Integrated Circuit Fabrication  
ECG 756 - Advanced Topics in Semiconductor Devices II  
ECG 757 - Electron Transport Phenomena in Solid

State Devices

ECG 758 - Numerical Methods in Engineering

**Additional Core Courses – Credits: 0-9**

Complete 0-9 credits of additional core courses from the core courses in any of the areas listed above.

**Elective Courses – Credits: 0-6**

Complete 0-6 credits of 600- or 700-level MAT, PHY, AST, CEE, CEM, ECG, EGG, CS, ME, or other advisor-approved courses.

**Thesis – Credits: 6**

ECG 797 - Electrical Engineering Thesis

**Degree Requirements**

1. Students must satisfy the M.S.E. - Electrical Engineering degree program admission requirements and be admitted to the M.S.E. - Electrical Engineering program with regular full graduate standing status, having met all conditions and provisions.
2. Total credits required depends on the total number of approved graduate-level course work taken as technical electives (with a grade of B or better) during the senior year.
3. Complete a minimum of 21, 24, or 27 credits (including thesis credits) in the Integrated BS-MS track program respectively corresponding to 9, 6, or 3 credits of formally approved graduate level courses applied toward the B.S. degree yielding a total of 30 course credits. The final division of major, minor, and elective credits will be determined in consultation with the student's advisor.
4. Students must complete all courses with an overall minimum GPA of 3.00 (B), a minimum GPA of 3.00 (B) each semester, and a minimum GPA of 2.70 (B-) in each class applied towards the 30 credits. Grades below B- are not counted towards the M.S.E. degree and must be repeated or replaced.
5. Students who do not maintain an overall GPA of 3.00 (B), a GPA of 3.00 (B) each semester, or who earn more than one grade

below B- will either be placed on probation or expelled from the program. The Electrical and Computer Engineering Graduate Committee and/or the Graduate College will determine the terms of the student's probation in accordance with the rules of the Graduate College.

6. At the time of admission or no later than the first semester, the MS candidate must formally petition BOTH the graduate college and the ECE graduate committee to accept transfer credits and credits taken as a non-degree seeking graduate student to be applied to the M.S.E. program.
7. Students must select a faculty advisor in their first semester.
8. A minimum of 18 credits must be in core (formal) electrical engineering courses, of which 15 credits must be 700-level. This excludes Thesis credits, and informal courses (such as Special Topics, Graduate Seminar, and Independent Study).
9. No more than 3 credits may be from Independent Study (which cumulatively includes Graduate Seminar) and no more than a total of 6 credits of the combination of Independent Study, Graduate Seminar, and Graduate Special Topics may be applied towards the M.S.E. degree program.
10. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
11. Students must complete a thesis.
  1. Students must complete at least 6 credits of Thesis which culminates in the successful completion of a thesis oral exam and the submission of an approved thesis. Although Electrical Engineering Thesis can be taken repeatedly, no more than 6 credits can be applied

towards the 30 credits required for the M.S.E. degree.

2. Before beginning a thesis, students must have their thesis topic approved by their advisor, and the necessary paper work must be filed with the Graduate College. The thesis prospectus describes the thesis topic and must include an introductory set of sentences, a well formed hypothesis or hypotheses (specifically italicized in the prospectus) accompanied by a motivation, objectives with major and alternative approaches to the studies, and conjectures of possible outcomes. Students are NOT allowed to take thesis credits until their thesis prospectus is approved. Credits taken before the approval date will NOT count towards the degree program.
  3. The student must complete a thesis containing original research and publically defend it before his/her advisory committee at the Thesis Exam.
  4. Prior to the student's defense of the thesis before his/her advisory committee, the student must submit a complete copy of the thesis to each member of his/her advisory committee. This submission must occur at least two weeks prior to the date of the oral defense. The student must also notify each member of his/her advisory committee of the date, time and location of the oral defense of the thesis or project at least two weeks in advance.
  5. Students who plan to continue their studies beyond the M.S.E. degree program are strongly encouraged to select this option.
12. A full graduate standing master's degree candidate who is interested in pursuing a doctoral degree may be allowed to take the Ph.D. qualifying exam without penalty

during his/her period as an M.S.E. student. The exam may be taken as many times as desired but no more than once a semester at the time the exam is typically offered. The M.S.E. candidate must pass four areas of choice in a single sitting to satisfy the Qualifying Exam requirement. If the student successfully completes the Qualifying Exam requirement while pursuing the M.S.E. degree in Electrical Engineering with a thesis option in the Electrical and Computer Engineering department at UNLV, the student will have automatically fulfilled the Qualifying Exam requirement upon admission to the Ph.D. program in the Electrical and Computer Engineering program at UNLV. Once the student receives an M.S. degree in the field of Electrical Engineering, the student must abide by the requirements outlined in the Ph.D. program. This option is not available to non-degree students.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*



## Electrical and Computer Engineering Courses

ECG 600 - Computer Communication Networks  
Credits 3

Computer network architecture; the OSI Model; network protocols; local area networks; fiber optics communication; ISDN; elements of Queueing Theory, with emphasis on hardware design issues.

ECG 603 - Embedded Systems Design  
Credits 3  
Embedded Systems Design.

ECG 604 - Modern Processor Architecture  
Credits 3  
Instruction level parallel processing. Processor performance evaluation and optimization. Scalar and superscalar pipelines. Instruction, register data and memory data flow techniques. Cache organization and performance analysis. Comparison of RESC, CISC and VLIW architecture. Survey of modern processors. Introduction to multithreading.

ECG 605 - Data Compression Systems  
Credits 3  
Source modeling. Foundations of lossy and lossless compression, code properties. Huffman and arithmetic coding, predictive coding, dictionary techniques, compression techniques and standards for facsimile, audio, video and still image coding. Hardware design specifics, coding and watermarking.

ECG 607 - Biometrics  
Credits 3  
Taxonomics of devices and applications, probability and statistical testing methods, one and two dimensional transform techniques, finger printing, voice recognition, facial recognition, and iris scanning, large scale identification applications, multibiometrics, social, legal, and ethical concerns.  
**Notes** This course is crosslisted with CPE 407. Credit at the 600 level requires additional work.

ECG 608 - Digital Design Verification and Testing  
Credits 3  
A study of complete digital design testing during all design flow stages - from writing code to testing

chips after manufacturing, creating and implementing effective test scenarios and assertion techniques, designing self-testing devices. Students will get hands-on experience with various EDA tools for design testing, verification, logic and fault simulation.

ECG 620 - Analog Integrated Circuit Design  
Credits 3  
An introduction to the design, layout, and simulation of analog integrated circuits including current mirrors, voltage and current references, amplifiers, and op-amps.  
**Prerequisites** EE 320.

ECG 621 - Digital Integrated Circuit Design  
Credits 3  
An introduction to the design, layout, and simulation of digital integrated circuits. MOSFET operation and parasitics. Digital design fundamentals including the design of digital logic blocks.  
**Prerequisites** CpE 100 and EE 320.

ECG 630 - Transmission Lines  
Credits 3  
Telegraphist's equations; transient response—steady state response; reflection diagrams; Smith chart; matching techniques and designs; narrow and broadband impedance matching techniques; scattering matrix; introduction to stripline and microstrip devices.

ECG 631 - Engineering Optics  
Credits 3  
Fundamentals of antennas and antenna design; linear wire, loop, and antenna arrays; antenna measurements.

ECG 632 - Antenna Engineering  
Credits 3  
Fundamentals of antennas and antenna design; linear wire, loop, and antenna arrays; antenna measurements.

ECG 633 - Active and Passive Microwave Engineering  
Credits 3  
This 600-level course has been approved by the Graduate College for possible inclusion in graduate programs. A full description of this course may be

found in the Undergraduate Catalog under the corresponding 400 number.

ECG 642 - Power Electronics  
Credits 3

Topics include: diode circuits and rectifiers, power semiconductor diodes and transistors, thyristors and static switches, controlled rectifiers, AC voltage controllers, DC choppers, inverters, AC and DC drives, power supplies and protection of devices and circuits.

ECG 646 - Photovoltaic Devices and Systems  
Credits 3

This course covers solar resource characteristics, solar cell physics and technologies, cell electrical characteristics, PV module design, DC-AC inverters, battery energy storage and charge controllers, design of stand-alone and grid-connected PV systems, and economic considerations.

**Prerequisites** Enrollment in the Solar and Renewable Energy Graduate Certificate Program, or graduate standing for engineering students.

ECG 651 - Electronic and Magnetic Materials and Devices  
Credits 3

Semiconductors, dielectrics, ferroelectrics, antiferromagnetics, ferromagnetics, ferrimagnetics, crystal structure, structure-property relations, device applications.

ECG 652 - Optoelectronics  
Credits 3

Topics include: modulation of light, display devices, lasers, photodetectors, fiber optics, engineering applications, and systems.

ECG 653 - Introduction to Nanotechnology  
Credits 3

Overview of Nanotechnology. Physics of the Solid State, Properties of Individual Nanostructures. Bulk Nanostructured materials, magnetic nanoparticles, Quantum Wells, Wires and Dots, Self-Assembly and Catalysis, nanoscale Biological materials.

ECG 662 - Digital Communication Systems  
Credits 3

Information theory and fundamental limits on performance, digital coding of waveforms, pulse

shaping for baseband transmission, digital bandpass modulations, channel coding.

ECG 666 - Wireless and Mobile Communication Systems  
Credits 3

Study of wireless systems including cellular telephone systems, wireless local area networks and other wireless data services. Topics include digital modulation techniques, frequency reuse, diversity techniques, multiple access schemes and channel modeling including path loss, shadowing, fading and multipath interference.

**Notes** This course is crosslisted with EE 466. Credit at the 600-level requires additional work.

**Prerequisites** EE 460 or equivalent.

ECG 672 - Digital Control Systems  
Credits 3

Introduction to discrete time of control. State space representation of linear systems; stability; the concepts of controllability and observability. Sample data control system design techniques, including pole placement, observer design.

ECG 674 - Recent Topics in Control  
Credits 3

This 600-level course has been approved by the Graduate College for possible inclusion in graduate programs. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

ECG 680 - Discrete-Time Signal Processing  
Credits 3

Review of discrete linear system theory including the z-transformers, the Fourier transform, discrete and fast Fourier transform. Sampling, reconstruction multirate systems and quantization noise. IIR and FIR digital filter design including digital filter structures and finite word length effects.

ECG 680L - Digital Signal Processing Laboratory  
Credits 1

Laboratory projects and exercises in digital signal processing including the design and implementation of FIR, IIR, and multirate systems.

ECG 682 - Introduction to Biomedical Signals and Systems

Credits 3

Introduction to biomedical signals, transduction devices, bioelectric potentials and sensors.

Application of electrical signal and system principles to biosignals, such as cardiovascular electrical signals, neural electrical communication, and diagnostic ultrasound. Includes current biomedical engineering topics.

ECG 695 - Special Topics

Credits 1-4

Covers experimental and other topics which may be of current interest. Topics and credits to be announced.

**Notes** May be repeated once under a different topic. May have a laboratory.

ECG 700 - Advanced Computer System Architecture

Credits 3

High performance computer architecture including pipelining techniques, high speed memory systems, vector processors, parallel processing, and interconnection networks.

**Prerequisites** ECG 300 or consent of instructor.

ECG 701 - Reliable Design of Digital Systems

Credits 3

D-algorithm, Boolean difference, test generation for combinational and sequential circuits, self checking circuits, fault tolerant design, design for testability, and topics in reliability and maintainability.

**Prerequisites** ECG 300 or consent of instructor.

ECG 702 - Interconnection Networks for Parallel Processing Applications

Credits 3

Interconnection networks models, comparison of single-stage networks: PM2I, HYPERCUBE Illiac and shuffle-exchange, partitioning single-state networks, multistage networks, survey and comparison of fault-tolerant multistage networks.

**Prerequisites** ECG 300 or consent of instructor.

ECG 704 - Coding with Applications in Computers and Communication Media

Credits 3

Error correcting codes, design and analysis of encoder/decoder circuitry, applications to reliable communication and fault tolerant computing, compression encoding schemes.

**Prerequisites** ECG 300 , MATH 453, or consent of instructor.

ECG 706 - Analysis of Telecommunication and Data Networks

Credits 3

Probability-based treatment of telecommunication and data networks. Delay, throughput, buffer management in layers of ISO Open Systems Interconnection Model. Performance analysis, flow and congestion control, routing function, polling and random access, CSMA/CD and Ethernet.

**Prerequisites** ECG 300 and MATH 462

ECG 707 - Logic Synthesis Engineering

Credits 3

Theory and application of Boolean Minimization, functional decomposition and logic synthesis for FPGAs, serial and parallel decomposition strategies, and design implementation using FPGAs. Design entry, introduction to VHDL, BDD, FSM, and BLIF. Placement and routing in Xilinx and Aleira.

**Prerequisites** Graduate standing in computer engineering or consent of instructor.

ECG 709 - Synthesis and Optimization of Digital Systems

Credits 3

Study of the high-level synthesis and optimization algorithms for designing SOCs and MPSOCs. Topics including algorithms for high-level synthesis, scheduling, resource binding, real-time systems, application specific instruction processors, embedded systems and hardware/software codesigns. Simulate and synthesize algorithms using HDL languages (Verilog and SystemC). Use of simulators and emulators.

**Prerequisites** CPE 300 and C/C++ knowledge or Instructor permission

ECG 720 - Advanced Analog IC Design

Credits 3

Advanced analog design considerations including: noise, common-mode feedback, high-speed design, and design for analog signal processing.

**Prerequisites** EE 420 or ECG 620.

ECG 721 - Memory Circuit Design

Credits 3

A practical introduction to the transistor-level design

of memory circuits. Memory technologies including DRAM, Flash, MRAM, Glass-based, and SRAM will be discussed.

**Prerequisites** EE 421 or ECG 621.

ECG 722 - Mixed-Signal Circuit Design

Credits 3

Design of data converters using sigma-delta techniques. Operation and design of custom digital filters for decimating and interpolating in analog-to-digital interfaces.

**Prerequisites** EE 320 and EE 360.

ECG 730 - Advanced Engineering Electromagnetics I

Credits 3

Conformal transformation with application to static field problems in engineering; wave harmonics with engineering applications; theorems of waves and media; Special Theory of Relativity with engineering applications; wave propagation in various media; engineering application of scattering.

**Prerequisites** ECG 330 or consent of instructor.

ECG 731 - Theoretical Techniques in

Electromagnetics

Credits 3

Review and introduce mathematical techniques basic to the study of engineering electromagnetics, including coupled mode theory; complex analysis; and Green's function.

**Prerequisites** ECG 330 or consent of instructor.

ECG 732 - Advanced Engineering Electromagnetics II

Credits 3

Scattering; particle and beam radiation; selected topics in advanced antenna and microwave engineering.

**Prerequisites** ECG 330 or consent of instructor.

ECG 733 - Plasma I

Credits 3

Single particle motion; adiabatic invariants; plasmas as fluids; waves in plasmas; diffusion; resistivity; introduction to kinetic theory; Landau damping.

**Prerequisites** ECG 330

ECG 740 - Computer Analysis Methods for Power Systems

Credits 3

Power system matrices, programming considerations, conventional power flow studies, approximate and fast power flow studies, optimal dispatch, fault studies, power system stability, stochastic methods in power systems analysis.

**Prerequisites** ECG 440, ECG 440L or consent of instructor.

ECG 741 - Electric Power Distribution System Engineering

Credits 3

Electric load characteristics, distribution transformers, design of subtransmission lines and distribution substations, design of primary and secondary systems, voltage drop and power loss calculation, capacitor applications, voltage regulation, distribution system protection and reliability.

**Prerequisites** ECG 440, ECG 440L or consent of instructor.

ECG 742 - Power System Stability and Control

Credits 3

Power equipment dynamic characteristics and modeling, control of active and reactive power, small-signal stability, transient stability, voltage stability, sub-synchronous oscillations, mid- and long-term stability, methods of improving stability.

**Prerequisites** ECG 440, ECG 440L or consent of instructor.

ECG 743 - Smart Electrical Power Grid

Credits 3

Modeling and operation of conventional power systems, microgrid power systems, renewable energy systems with battery storage, smart grid concepts, smart power devices, smart grid communication, cyber security, advanced metering infrastructure, dynamic home area networks, demand response.

ECG 750 - Photonics

Credits 3

Review of Electromagnetic theory of light, optical wave propagation in vacuum and media, waveguides, fiber optics, quantum dots, lasers, LEDs, semiconductor lasers, optical detectors, electro-optic and acousto-optic modulations, nonlinear optics, harmonic generation, parametric process, Q-switching, mode locking, frequency combs, laser amplification, quantum mechanical aspects of light.

**Prerequisites** MATH 432, EE 330, EE 452/ECG 652 or consent of instructor.

ECG 752 - Physical Electronics  
Credits 3

Quantum Theory, electron in potential well, harmonic oscillator. Hydrogen atom, Band Theory of Solids, Kronig-Penny model, theory of metallic state, diffraction by crystals, electronic structure of solids.

**Prerequisites** ECG 320 or consent of instructor.

ECG 753 - Advanced Topics in Semiconductor Devices I  
Credits 3

Topics of current interest in solid state electronic devices: physics of semiconductors, thermal and optical and electronic properties of semiconductors, bipolar junction devices, field effect devices, surface related effects, optoelectronic devices, semiconductor lasers. Applications and the design of circuits using these devices. Intended for electrical and electronic engineers, physicists and qualified senior students in engineering and physics.

**Prerequisites** PHYS 411 and 483 or ECG 421, ECG 420 and consent of instructor.

ECG 755 - Monolithic Integrated Circuit Fabrication  
Credits 3

Fabrication of integrated silicon and gas circuits, thermal oxidation, solid state diffusion, epitaxial growth, ion implantation, photo and electron lithography, design considerations, surface effect.

**Prerequisites** Graduate standing or consent of instructor.

ECG 756 - Advanced Topics in Semiconductor Devices II  
Credits 3

Topics of current interest in solid state electronic devices: ultrafast electronics, high electron mobility transistors, superlattices, heteroface devices, transfer electron devices and III-V and II-VI compounds, novel device structures. Novel approaches to device modeling such as Monte Carlo simulations, self-consistent solution of Schroedinger and Poisson and other approaches.

**Prerequisites** ECG 753

ECG 757 - Electron Transport Phenomena in Solid State Devices

Credits 3

Phenomenological transport equations, Boltzmann transport equation, relaxation time approximation, low field and high electron transport in Si and GaAs, moments of BTE, Monte Carlo simulation, spatial and temporal transients, device analysis, Quantum transport.

**Prerequisites** ECG 450 or ECG 753.

ECG 758 - Numerical Methods in Engineering  
Credits 3

Computational course with emphasis on both the numerical analysis and the programming aspects of computer-aided design using simulation methods. Coverage includes understanding and use of CAD programs such as ECAP, CIRCUS, ICECREM, SUPREM, etc.

**Prerequisites** Graduate standing or consent of instructor.

ECG 758R - Optical Sensing  
Credits 3

Quick review of fiber optics, lasers, and detectors. Fiber responses to disturbances, interferometry, displacement sensors, laser stabilization, atomic clocks, precision time and frequency transfer, multiplexing in time, spatial, wavelength domains, rotation and angular sensors, acoustic sensors, deformation sensors, photonic Doppler velocimetry, remote sensing, biosensors, quantum enhancement.

**Prerequisites** Consent of instructor. It is recommended but not required for students to have completed ECG 652 Optical Electronics and ECG 750 Photonics.

ECG 760 - Random Processes in Engineering Problems  
Credits 3

Basic probability theory, random variables, probability and densities, expectation, static estimation, random processes, power spectral density, mean square calculus, Wiener integrals.

**Prerequisites** ECG 460, MATH 461 or consent of instructor.

ECG 762 - Detection and Estimation of Signals in Noise  
Credits 3

Hypothesis testing, matched filters, estimation

theory, Kalman and Wiener filters, applications to communication systems.

**Prerequisites** ECG 460, ECG 760 or consent of instructor.

ECG 763 - Advanced Digital Communication Systems

Credits 3

Digital communication systems with emphasis in digital modulation schemes, optimal detectors, inter symbol interference, channel equalization and multi-carrier communications.

**Prerequisites** EE 460

ECG 770 - Linear Systems

Credits 3

Mathematical systems theory, state space concepts, canonical forms, time and frequency domains, controllability and observability, state feedback, compensator design, and algebraic systems theory.

**Prerequisites** ECG 470, MATH 431 or consent of instructor.

ECG 771 - Optimal and Modern Control

Credits 3

Students will participate in one of the following activities: research; clinical activity; community outreach under the supervision of a dentist/mentor; may also participate in clinical externship activities with prior approval.

**Notes** Topics selected according to the interests of the class.

**Prerequisites** ECG 770

ECG 772 - Nonlinear Systems

Credits 3

Introduction, differential equations, approximate analysis methods, Lyapunov stability, input-output stability.

**Prerequisites** ECG 770 or consent of instructor.

ECG 774 - Stochastic Control

Credits 3

Introduction, stochastic processor, state estimation, Kalman Filter, nonlinear estimation, stochastic control.

**Prerequisites** ECG 770 or consent of instructor.

ECG 776 - Adaptive Control

Credits 3

Introduction, model reference control, hyperstability, Popov criterion, parameter identification, adaptive control of discrete systems, adaptive predictor, adaptive state estimation.

**Prerequisites** ECG 770 (formerly EEG 760) or consent of instructor.

ECG 780 - Digital Signal Processing

Credits 3

Introduction to the theory and applications of digital signal processing. Discrete-time signals, linear systems and difference equations. Sampling and multirate systems. One sided and two sided z-transforms. Finite impulse response (FIR) and infinite impulse response (IIR) systems. The discrete and fast Fourier transforms (FFT).

**Prerequisites** ECG 460, MATH 431 or consent of instructor.

ECG 781 - Digital Filters

Credits 3

Theory and applications of digital filters. Structures for discrete time systems. Finite precision numerical effects in digital systems. Finite impulse response (FIR) and infinite impulse response (IIR) digital filters designs including windowing techniques, optimization techniques, analog to discrete time transformation techniques and wave digital filters.

**Prerequisites** ECG 780

ECG 782 - Multidimensional Digital Signal Processing

Credits 3

Theory and applications of multidimensional (M-D) digital signal processing. M-D signals and systems. M-D z-transform. M-D DFT and FFT. Design and implementation of M-D FIR and IIR filters.

Applications to image processing such as image enhancement and restoration. Advanced topics chosen according to class interests.

**Prerequisites** ECG 780

ECG 783 - Adaptive Signal Processing with Neural Networks

Credits 3

Theory and application of adaptive signal processing with neural networks. Theory of adaptation and performance surfaces. Adaptive algorithms.

Fundamental concepts and models of artificial neural systems. Single layer perception classifiers. Multi

layer feed forward networks. Single layer feedback networks applications.

**Prerequisites** ECG 780 or equivalent.

ECG 791 - Independent Study in Electrical Engineering

Credits 1 – 3

Supervised independent work in a topic of electrical engineering.

**Notes** May be repeated to a maximum of six credits with consent of electrical engineering faculty.

**Prerequisites** Graduate standing in electrical engineering or related field and consent of instructor.

ECG 793 - Engineering Science Seminars

Credits 1-3

The seminar series emphasizes national security related topics, which are broadly applicable to all sciences and technology disciplines. Leaders and experts from government, national laboratories, and universities present the latest progress in national security, defense experiments, applied physics, electrical engineering, photonics, and scientific computing.

**Notes** May be repeated to a maximum of six credits.

ECG 795 - Advanced Special Topics in Electrical Engineering

Credits 1 – 3

Advanced special topics in modern electrical engineering as defined in the announcement of the course.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing in electrical engineering or related field and consent of instructor.

ECG 797 - Electrical Engineering Thesis

Credits 3 – 6

**Notes** May be repeated, but only six credits will be applied to a student's program.

**Grading** S/F grading only.

**Prerequisites** Graduate standing in electrical engineering or related field and consent of instructor.

ECG 799 - Dissertation

Credits 1 – 6

Research analysis and writing toward completion of dissertation and subsequent defense.

**Notes** May be repeated to a maximum of 18 credits allowed toward the degree.

**Grading** S/F grading only.

**Prerequisites** Graduate standing in electrical engineering or related field and consent of instructor.

## Mechanical Engineering

Among the subjects taught and researched by the faculty of the mechanical engineering program are the following: active material, aerospace, vibrations and acoustics, heat transfer, fluid flow (and computational fluid dynamics), environmental transport processes, multiphase flow, energy conservation and conversion technologies, alternative energy including solar power, automatic control, robotics, biomedical engineering, nuclear engineering, structural properties of engineering materials, and composites.

Graduate students have access to all departmental laboratories and equipment as well as the facilities of the National Supercomputing Center for Energy and the Environment. The department supports numerous networked workstations.

The laboratories of the department include an extensive acoustics and vibrations facility, a thermal-fluids capability, a full array of mechanical testing machines, measurement and control laboratory, and a low-moderate speed wind tunnel. A unique laboratory also exists for full-scale testing of ducts and diffusers, including indoor air quality and HVAC equipment.

In addition to a recently established material performance laboratory, several faculty members are developing and testing different designs of solar power generators.

*Brendan O'Toole, Ph.D., Chair*

*Hui Zhao, Ph.D., Graduate Coordinator*

## Mechanical Engineering Faculty

### Chair

**O'Toole, Brendan J.** - *Full Graduate Faculty*  
Professor; B.S., M.S., Ph.D., University of Delaware.  
*Rebel since 1992.*

### Graduate Coordinator

**Zhao, Hui** - *Full Graduate Faculty*  
Associate Professor; B.S., M.S., Peking University, China; Ph.D., University of Pennsylvania. *Rebel since 2009.*

### Graduate Faculty

**Bansal, Shubhra** - *Full Graduate Faculty*  
Assistant Professor; B.S., Indian Institute of Technology, M.S., Ph.D., Georgia Institute of Technology. *Rebel since 2015.*

**Barzilov, Alexander P.** - *Full Graduate Faculty*  
Associate Professor; M.S. Institute of Nuclear Power Engineering (INPE), Obninsk, Russia; Ph.D. Institute of Physics and Power Engineering (IPPE), Obninsk, Russia. *Rebel since 2012.*

**Boehm, Robert F.** - *Full Graduate Faculty*  
Professor; B.S., M.S., Washington State University; Ph.D., University of California, Berkeley; P.E., California. *Rebel since 1990.*

**Chen, Yi Tung** - *Full Graduate Faculty*  
Professor; B.S., Feng Chia University; M.S., Ph.D., University of Utah. *Rebel since 1993.*

**Culbreth, William G.** - *Full Graduate Faculty*  
Associate Professor; B.S., California State Polytechnic University, Pomona; M.S., Ph.D., University of California, Santa Barbara. *Rebel since 1985.*

**Hartmann, Thomas** - *Full Graduate Faculty*  
Associate Professor; Diploma in Mineralogy, University Heidelberg. Ph.D., University Heidelberg / Karlsruhe Institute of Technology

**Kim, Kwang J.** - *Full Graduate Faculty*  
Professor; B.S., Yonsei University, S. Korea; M.S., Ph.D., Arizona State University. *Rebel since 2012.*



**Mauer, Georg F.** - *Full Graduate Faculty*  
Professor; Diploma-Ingenieur; Ph.D., Technical  
University of Berlin. *Rebel since 1986.*

**Moon, Jaeyun** - *Full Graduate Faculty*  
Assistant Professor; B.S., M.S., Hanyang University;  
Ph.D., University of California, San Diego. *Rebel*  
*since 2014.*

**Moujaes, Samir F.** - *Full Graduate Faculty*  
Professor; B.S., M.S., American University of Beirut;  
Ph.D., University of Pittsburgh; P.E., Nevada. *Rebel*  
*since 1984.*

**Oh, Paul** - *Full Graduate Faculty*  
Professor; B.S., McGill University; M.S., Seoul  
National University; Ph.D., Columbia University.  
*Rebel since 2014.*

**Pepper, Darrell W.** - *Full Graduate Faculty*  
Professor; B.S., M.S., Ph.D., University of Missouri-  
Rolla. *Rebel since 1992.*

**Reynolds, Douglas D.** - *Full Graduate Faculty*  
Professor; B.S., Michigan State University; M.S.,  
Ph.D., Purdue University. *Rebel since 1983.*

**Rice, Stephen** - *Full Graduate Faculty*  
Professor; B.S., M.Eng., Ph.D., University of  
California, Berkeley. *Rebel since 1966.*

**Trabia, Mohamed** - *Full Graduate Faculty*  
Professor; B.S., M.S., Alexandria University; Ph.D.,  
Arizona State University. *Rebel since 1987.*

**Wang, Zhiyoung** - *Full Graduate Faculty*  
Associate Professor; B.S., M.S., Ph.D., Harbin  
University of Science and Technology. *Rebel since*  
*1998.*

**Yim, Woosoon** - *Full Graduate Faculty*  
Professor; B.S., Hanyang University, S. Korea; M.S.,  
Ph.D. University of Wisconsin-Madison. *Rebel since*  
*1987*

## Graduate Certificate in Nuclear Criticality Safety

### Plan Description

The graduate, distance education Nuclear Criticality Safety Engineering (NCSE) Certificate program will provide the graduate MSMNE student a diverse education and the practicing NCS engineer (and their employer) with components that will help train and maintain a well-qualified workforce. The UNLV NCSE Certificate will provide evidence that the graduate has the appropriate education to become a certified NCS Engineer in NRC-licensed facilities, US DOE's national laboratories, and the Navy Reactors program. The NCSE Certificate program consists of four nuclear engineering courses (twelve credits total) that include three required courses and a related/approved elective course. In addition, many of the proposed topic areas, e.g., Introduction to Nuclear Criticality Safety, are also appropriate subjects for general nuclear engineering graduate students (i.e., not NCS engineers), while other certificate program courses, e.g., Monte Carlo Methods are appropriate for both UNLV's NE students as well as health and medical physics students.

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Admission to the NCSE Certificate program requires both a BS degree in an engineering discipline and ME 455/655 Fundamentals of Nuclear Engineering (or equivalent).

If an applicant can demonstrate equivalent knowledge from relevant work experience (e.g. Navy nuclear reactor program or extensive training and experience at an NRC-licensed or DOE process facility), the Director of the NCSE Certificate Program can waive both requirements with the concurrence of the Chair of the Department of Mechanical Engineering based upon review by nuclear engineering faculty.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 12  
Course Requirements

### **Required Courses – Credits: 9**

ME 754 - Introduction to Nuclear Criticality Safety  
ME 755 - Nuclear Criticality Safety Engineering  
ME 756 - Monte Carlo Methods in Nuclear Engineering

### **Elective – Credits: 3**

Complete an advisor-approved graduate-level nuclear engineering or health physics course.

### **Certificate Requirements**

Completion of a minimum of 12 credit hours with a minimum GPA of 3.00.

### **Plan Certificate Completion Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

## **Graduate Certificate in Nuclear Safeguards and Security**

### **Plan Description**

The graduate Nuclear Safeguards and Security (NSS) Certificate program will provide graduate students and practicing engineers (and their employers) a diverse education with components that will help train and maintain a well-qualified workforce. The UNLV NSS Certificate will provide evidence that the graduate has the appropriate education to become a nuclear safeguards and security engineer in NRC-licensed facilities and US DOE's national laboratories.

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Admission to the NSS Certificate program, either as a MSMNE student or as a non-admitted student, requires both a BS degree in an engineering or related discipline and ME 455/655 Fundamentals of Nuclear Engineering or HPS 701 Applied Nuclear Physics (or an equivalent course). If an applicant can demonstrate equivalent knowledge from relevant work experience (e.g. Navy nuclear reactor program or extensive training and experience at an NRC-licensed or DOE process facility), the Director of the NSS Certificate Program can waive the prerequisite course requirement with the concurrence of the Chair of the Department of Mechanical Engineering based upon review by nuclear engineering faculty.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 12  
Course Requirements

### **Required Courses – Credits: 9**

ME 757 - Radiation Monitoring and Safeguards Systems

ME 758 - Accelerator Applications in Nuclear Engineering

ME 765 - Neutron Detection and Production

### **Elective Course –Credits: 3**

Complete one of the following courses, or another advisor approved NSS-relevant Mechanical Engineering, Radiochemistry or Health Physics graduate course.

ME 756 - Monte Carlo Methods in Nuclear Engineering

ME 760 - Waste Management And The Nuclear Fuel Cycle

PSC 726 - National Security Policy

### **Certificate Requirements**

1. Completion of a minimum of 12 credit hours.
2. A grade point average of at least 3.00 for course work required for the certificate.
3. No grade lower than B is acceptable.

### **Plan Certificate Completion Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

## **Doctor of Philosophy - Mechanical Engineering**

### **Plan Description**

The Department of Mechanical Engineering offers a program leading to the Ph.D. degree in Engineering in the field of Mechanical Engineering. The program also offers the Ph.D. degree with major in the field of Nuclear Engineering.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Application for the Ph.D. program can be completed by one of two mechanisms. The Post-Master's Track requires the student to complete an M.S. degree in Engineering or equivalent with a major in mechanical engineering or closely related fields (nuclear engineering or health physics for the Nuclear concentration track). The Post-Bachelor's Track allows those undergraduates with outstanding undergraduate backgrounds to enter the Ph.D. program without having to complete an M.S. degree. The degree requirements for both options are the same beyond the B.S. degree excluding the completion of a master's thesis.

In order to be admitted to the Ph.D. program in Engineering in the field of Mechanical Engineering, a student must complete the following requirements:

1. Applicants must complete the on-line process in the "Apply Yourself (AY)" system.
2. In addition to the required information in the general AY application system, the Department of Mechanical Engineering has two additional requirements which can also be submitted in the AY system as optional items. Electronic submission is a preferred method. If these items are not completed in

the AY system before you finish and make payment, you cannot go back and do them electronically afterwards. In this case, you must mail hard copies to the Department of Mechanical Engineering. The two requirements are:

1. Submit a written statement of purpose indicating interests and objectives in working toward a Ph.D. degree. This is a 1-2 page essay describing the applicant's reasons for considering graduate study, goals after completion of the graduate degree, and the applicant's specific areas of interest.
2. Submit three letters of recommendation using the online recommendation system. There is no specified format. Each letter should detail the potential of the applicant for advanced graduate work in Mechanical Engineering.
3. Candidates can be admitted on a regular or provisional status. Qualified applicants who are not admitted can take graduate courses as a non-degree seeking student but only 15 credits can be counted toward the degree program.
4. The applicant must submit his/her official copy of the Graduate Record Examination (GRE) test scores. To be admitted to the graduate program in Mechanical Engineering, the applicant must be at or above the 75 percentile range (of the group taking the GRE when the applicant takes the exam) in the quantitative reasoning section of the exam. If the applicant is less than 75 percent, at the discretion of the Department of Mechanical Engineering, the applicant may be provisionally admitted to the graduate program with the requirement that he/she retake the GRE during the first semester after admission. If the applicant fails to retake the GRE during the first semester after admission or if the applicant fails to be at or above the 75 percent range in the quantitative reasoning section of the exam after retaking the exam, at its discretion, the Department of Mechanical

Engineering may remove the applicant from the graduate program. The GRE university code for UNLV is 4861. The Mechanical Engineering Department code is 1502.

5. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

#### Post-Master's Track

1. The applicant must have a Master of Science in Engineering degree or equivalent with a major in mechanical engineering or a closely allied field. Students with non-engineering backgrounds will be required to complete a set of course work requirements that will assure successful completion of the Ph.D. specialization and qualify the student to sit for the Fundamentals of Engineering (FE) exam. The Graduate Program Committee (GPC) will decide upon special cases.
2. A minimum post-baccalaureate GPA of 3.30 (on a 4.00 scale) is required for graduates from accredited U.S. institutions. The Graduate College is responsible for international GPA interpretation.

#### Post-Bachelor's Track

1. The applicant must have a bachelor's degree in engineering or a closely related discipline. Students with non-engineering backgrounds will be required to complete a set of course work requirements that will assure successful completion of the Ph.D. specialization and qualify the student to sit for the Fundamentals of Engineering (FE) exam. The department Graduate Program Committee (GPC) will decide upon special cases.
2. A minimum GPA of 3.50 (on a 4.00 scale) is required for graduates from accredited U.S. institutions. The Graduate College is responsible for international GPA interpretation.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

## Plan Requirements

*See Subplan Requirements below.*

### Subplan 1 Requirements: Post-Master's Track

Total Credits Required: 39

Course Requirements

#### Required Courses – Credits: 21

Complete 21 credits of 600- or 700-level coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

Students in the Nuclear Engineering concentration must take at least three of the following courses as part of their 21 credits of coursework:

ME 655 - Fundamentals of Nuclear Engineering  
ME 700 - Advanced Fluid Mechanics I  
ME 701 - Advanced Fluid Mechanics II  
ME 702 - Computational Fluid Dynamics  
ME 705 - Conduction Heat Transfer  
ME 706 - Convective Heat Transfer  
ME 707 - Radiation Heat Transfer  
ME 708 - Convective Boiling and Condensation  
ME 711 - Advanced Thermodynamics  
ME 754 - Introduction to Nuclear Criticality Safety  
ME 755 - Nuclear Criticality Safety Engineering  
ME 756 - Monte Carlo Methods in Nuclear Engineering  
ME 760 - Waste Management And The Nuclear Fuel Cycle  
ME 762 - Nuclear Power Engineering  
ME 763 - Nuclear Reactor Analysis  
HPS 602 - Radiation Detection  
HPS 603 - Radiation Physics and Instrumentation Laboratory  
HPS 701 - Applied Nuclear Physics  
HPS 703 - Radiation Interactions and Transport  
HPS 720 - Radiation Dosimetry  
HPS 730 - Advanced Radiation Biology  
HPS 719 - Introduction to Radioanalytical Chemistry

#### Dissertation – Credits: 18

ME 799 - Dissertation

## Degree Requirements

1. Complete a minimum of 21 credit hours of course work beyond the degree of Master of Science in Engineering (M.S.) or equivalent with an overall minimum GPA of 3.20 and a minimum GPA of 2.70 (B-) in each class. Ph.D. candidates who do not maintain this GPA requirement will be placed on probation.
2. Out of the 21 credit hours of course work a minimum of 18 of these credits must be 700-level courses, and no more than 6 credits can be from ME 791 Graduate Independent Study. In addition to these course requirements, a minimum of 18 credits of Dissertation is required.
3. The student's Doctoral Advisory Committee may add other requirements in accordance with the individual's background and area of study. No more than 15 non-matriculated credits including transfer credits are allowed.
4. A Doctoral Advisory Committee composed of at least five members of the UNLV graduate faculty is to be formed for the student. Three of these faculty members must be from the Department of Mechanical Engineering, the fourth from a relevant supporting field, and a fifth as appointed by the Graduate College.
5. The program of study must be submitted by the second semester of study. The program of study is to be prepared by the student and his/her doctoral advisor, and must be approved by the student's Doctoral Advisory Committee and the GPC.
6. In order to show breadth and depth of knowledge in his/her discipline, the doctoral student must pass either a written qualifying exam, or an oral qualifying exam, or both as determined by the student's Doctoral Advisory Committee. Each student must choose one of the following areas as a major and another as a minor:
  - a. Dynamics and Control
  - b. Fluid Mechanics
  - c. Material Science

- d. Solid Mechanics and Mechanical Design
  - e. Thermal Sciences
  - f. Nuclear Engineering
7. In addition, all students will be tested in Mathematics. These examinations are on the undergraduate senior level, and are prepared by the department. Qualifying exams are held every semester. The qualifying exams must be scheduled during the first year of study. The qualifying exam can be taken a maximum of two times. Failure to take the exam within the first year or failure to pass the exam in the second attempt will automatically result in terminating student from the program.
8. After successfully completing all required course work and passing the Qualifying Exam, students must pass a preliminary exam with a written proposal for the dissertation research, followed by an oral defense of the proposal before the Doctoral Advisory Committee. The Preliminary Exam cannot be taken more than once per semester but may be repeated until passed. The student is advanced to candidacy for the Ph.D. upon completion of all course work and this Preliminary Exam.

Plan Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 2 Requirements: Post-Bachelor's Track**

Total Credits Required: 63

Course Requirements

**Required Courses – Credits: 45**

Complete 45 credits of 600- or 700-level coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

Students in the Nuclear Engineering concentration must take at least three of the following courses as part of their 45 credits of coursework:

- ME 655 - Fundamentals of Nuclear Engineering
- ME 700 - Advanced Fluid Mechanics I
- ME 701 - Advanced Fluid Mechanics II
- ME 702 - Computational Fluid Dynamics
- ME 705 - Conduction Heat Transfer
- ME 706 - Convective Heat Transfer
- ME 707 - Radiation Heat Transfer
- ME 708 - Convective Boiling and Condensation
- ME 711 - Advanced Thermodynamics
- ME 754 - Introduction to Nuclear Criticality Safety
- ME 755 - Nuclear Criticality Safety Engineering
- ME 756 - Monte Carlo Methods in Nuclear Engineering
- ME 760 - Waste Management And The Nuclear Fuel Cycle
- ME 762 - Nuclear Power Engineering
- ME 763 - Nuclear Reactor Analysis
- HPS 602 - Radiation Detection
- HPS 603 - Radiation Physics and Instrumentation Laboratory
- HPS 701 - Applied Nuclear Physics
- HPS 703 - Radiation Interactions and Transport
- HPS 720 - Radiation Dosimetry
- HPS 730 - Advanced Radiation Biology
- HPS 719 - Introduction to Radioanalytical Chemistry

**Dissertation – Credits: 18**

ME 799 - Dissertation

Degree Requirements

1. Complete a minimum of 45 credit hours of course work beyond the degree of Bachelor of Science in Engineering (B.S.) or equivalent with an overall minimum GPA of 3.20 and a minimum GPA of 2.70 (B-) in each class. Ph.D. candidates who do not maintain this GPA requirement will be placed on probation. Students on academic probation may be transferred to the M.S.M.E. Program depending on the student's academic record.
2. Out of the 45 credit hours of course work, a minimum of 33 credits must be in 700-level courses, and no more than 6 credits can be from ME 791 Graduate Independent Study. In addition to these course requirements, a minimum of 18 credits of Dissertation is required.

3. The student's doctoral advisory committee may add more requirements in accordance with the individual's background and field of study. No more than 15 non-matriculated credits including transfer credits is allowed.
4. A Doctoral Advisory Committee composed of at least five members of the UNLV graduate faculty is to be formed for the student. Three of these faculty members must be from the Department of Mechanical Engineering, the fourth from a relevant supporting field, and a fifth as appointed by the Graduate College.
5. The program of study must be submitted by the second semester of study. The program of study is to be prepared by the student and his/her doctoral advisor, and must be approved by the student's Doctoral Advisory Committee and the GPC.
6. In order to show breadth and depth of knowledge in his/her discipline, the doctoral student must pass either a written qualifying exam, or an oral qualifying exam, or both as determined by the student's Doctoral Advisory Committee. Each student must choose one of the following areas as a major and another as a minor:
  1. Dynamics and Control
  2. Fluid Mechanics
  3. Material Science
  4. Solid Mechanics and Mechanical Design
  5. Thermal Sciences
  6. Nuclear Engineering
7. In addition, all students will be tested in Mathematics. These examinations are on the undergraduate senior level, and are prepared by the department. Qualifying exams are held every semester. The qualifying exams must be scheduled during the first year of study. The qualifying exam can be taken a maximum of two times. Failure to take the exam within the first year or failure to pass the exam in the second attempt will automatically result in terminating student from the program.
8. After successfully completing all required course work and passing the Qualifying Exam, students must pass a preliminary

exam with a written proposal for the dissertation research, followed by an oral defense of the proposal before the Doctoral Advisory Committee. The Preliminary Exam cannot be taken more than once per semester but may be repeated until passed. The student is advanced to candidacy for the Ph.D. upon completion of all course work and this Preliminary Exam.

#### Plan Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Master of Science - Biomedical Engineering

### Plan Description

The objective of the M.S.B.E. degree program is to provide a graduate-level educational experience that will prepare individuals to undertake design and research in the area of biomedical engineering. The program is multidisciplinary and integrates knowledge from the traditional engineering sciences, the life sciences, and medicine.

Specific goals of the program include development of:

1. A thorough grounding in the life sciences;
2. Mastery of engineering tools and approaches;
3. Familiarity with the problems of making and interpreting quantitative measurements of living systems;
4. The ability to use modeling techniques; and
5. The ability to formulate and solve problems with medical relevance, including the design of devices, systems, and processes to improve human health.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

In addition to the general requirements for admission to the Graduate College, an applicant for the M.S. program must complete the following requirements:

1. Applicants must complete the on-line process in the "Apply Yourself (AY)" system.
2. In addition to the required information in the general AY application system, the Mechanical Engineering Department has two additional requirements which can also be submitted in the AY system as optional

items. Electronic submission is the preferred method. If these items are not completed in the AY system before you finish and make payment, you cannot go back and do them electronically afterwards. In this case, you must mail hardcopies to the Mechanical Engineering Department. The two items are:

1. A written statement of purpose indicating interests and objectives in working toward a M.S. degree.
2. Two letters of recommendation. There is no specified format. Your references should point out the qualifications that make you a good candidate for admission.
3. The applicant must have a bachelor's degree in engineering or a closely related discipline. Students with non-engineering backgrounds will be required to complete a set of course work requirements that will assure successful completion of the M.S. specialization and qualify the student to sit for the Fundamentals of Engineering (FE) exam. The Graduate Program Committee (GPC) will decide upon special cases.
4. The applicant must submit his/her official copy of the Graduate Record Examination (GRE) test scores. To be admitted to the graduate program in Mechanical Engineering, the applicant must be at or above the 75 percentile range (of the group taking the GRE when the applicant takes the exam) in the quantitative reasoning section of the exam. If the applicant is less than 75 percent, at the discretion of the Department of Mechanical Engineering, the applicant may be provisionally admitted to the graduate program with the requirement that he/she retake the GRE during the first semester after admission. If the applicant fails to retake the GRE during the first semester after admission or if the applicant fails to be at or above the 75 percent range in the quantitative reasoning section of the exam after retaking the exam, at its discretion, the Department of Mechanical Engineering may remove the applicant from the graduate program. The GRE university



code for UNLV is 4861. The Mechanical Engineering Department code is 1502.

5. The GPC will examine the applicant's academic record and will make the final determination of the applicant's admissibility to the M.S. program. In general, a minimum post baccalaureate GPA of 3.00 on a 4.00 scale or equivalent is required for admission in addition to a GPA of 3.00 on a 4.00 scale or equivalent in all engineering courses.
6. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Our department admissions committee looks at all of these requirements when making admissions decisions.

Students who have not taken at least three of the courses listed below (or their equivalent), will be required to do so in addition to course requirements listed below.

BIO 209 – Introduction to Cell Biology  
BIO 360 – Mammalian Physiology  
CHE 225 – Organic Chemistry I  
BIOL 209 – Introduction to Cell Biology  
BIOL 223 – Human Anatomy and Physiology I  
BIOL 480 – Introduction to Biological Modeling  
CHEM 220 – Introductory Organic Chemistry  
CHEM 474 – Biochemistry I  
CHEM 478 – Endocrinology  
MATH 283 – Calculus III  
MATH 427 – Differential Equations I  
MATH 431 – Mathematics for Engineers and Scientists I  
STAT 463 – Applied Statistics for Engineers  
ME 301 – Structure and Properties of Solids  
ME 302 – Material Mechanics  
ME 311 – Engineering Thermodynamics  
ME 314 – Introduction to Heat Transfer  
ME 380 – Fluid Dynamics for Mechanical Engineers  
ME 402 – Computational Methods for Engineers  
ME 421 – Automatic Controls  
ME 425 – Robotics

The Integrated BS-MS degree program is designed to provide high-achieving MEG undergraduate students

with the opportunity to be exposed to graduate courses and to encourage them to continue with graduate degree by reducing the time needed for degree completion. Up to nine credit hours of approved graduate-level course work can be taken as technical electives for the grade of B or better during the senior year and those credit hours will be waived for the graduate degree. The following conditions are needed to enroll in the Integrated BS-MS program:

1. A minimum of two semesters of full-time enrollment in B.S. of Mechanical Engineering program is required.
2. Applications are normally submitted with two semesters remaining in the senior year.
3. A minimum of 90 credit hours of course work applicable to the B.S. of Mechanical Engineering degree with a cumulative GPA of 3.50 or higher must be completed before beginning the joint degree program.
4. Student has to choose the thesis option.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Non-Thesis Track**

Total Credits Required: 30

Course Requirements

### **Required Courses – Credits: 27**

Complete 27 credits of advisor-approved common core introductory biomedical engineering and health science courses.

### **Design Project – Credits: 3**

ME 796 - Design Project in Mechanical Engineering

Degree Requirements

1. Requires 33 credits of approved graduate courses. At least 18 credits must be earned from 700-level courses, and 15 credits must be in engineering.
2. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00 scale), no grades below C, (C- is not acceptable) and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
3. Only those courses in which a student received a grade of C or better may be used for graduate credit. Students must comply with Graduate College policy.
4. Courses numbered below 600 do not count toward the hours required for the M.S. degree.
5. Each student's program should show suitable breadth and coherence. As specified in the Graduate Catalog, the program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Successfully complete a design project.

#### Subplan 2 Requirements: Thesis Track

Total Credits Required: 30

Course Requirements

#### Required Courses – Credits: 24

Complete 24 credits of advisor-approved common core introductory biomedical engineering and health science courses.

#### Thesis – Credits: 6

ME 797 - Thesis in Mechanical Engineering

Degree Requirements

1. Requires 24 credits of approved graduate courses plus six credits of work associated with the master's level thesis, for a total of 30 credits. At least 15 credits must be earned from 700-level courses, and at least 15 credits must be in engineering. The final examination will include a defense of thesis.
2. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00 scale), no grades below C, (C- is not acceptable) and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
3. Only those courses in which a student received a grade of C or better may be used for graduate credit. Students must comply with Graduate College policy.
4. Courses numbered below 600 do not count toward the hours required for the M.S. degree.
5. In consultation with his/her advisor, a student will organize a thesis committee of

at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

6. Each student's program should show suitable breadth and coherence. As specified in the Graduate Catalog, the program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 3 Requirements: Integrated BS-MS Track**

Total Credits Required: 21-27

Course Requirements

#### **Required Courses – Credits: 15-21**

Complete 15-21 credits of advisor-approved common core introductory biomedical engineering and health science courses.

#### **Thesis – Credits: 6**

ME 797 - Thesis in Mechanical Engineering

#### Degree Requirements

1. Total credits required depends on the total number of approved graduate-level course work taken as technical electives (with a grade of B or better) during the senior year.
2. Requires 15-21 credits of approved graduate courses plus six credits of work associated with the master's level thesis, for a total of 21-27 credits. At least 15 credits must be earned from 700-level courses, and at least 15 credits must be in engineering. The final examination will include a defense of thesis.
3. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00 scale), no grades below C, (C- is not acceptable) and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
4. Only those courses in which a student received a grade of C or better may be used for graduate credit. Students must comply with Graduate College policy.
5. Courses numbered below 600 do not count toward the hours required for the M.S. degree.
6. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An

additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

7. Each student's program should show suitable breadth and coherence. As specified in the Graduate Catalog, the program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

## Master of Science - Materials and Nuclear Engineering

### Plan Description

M.S. is intended to provide the student with a solid background in either applied nuclear science and engineering, with an emphasis in used fuel management, criticality, or radiation detection, or material science and engineering, with an emphasis in materials performance. The program consists of two master's degree tracks: Materials Engineering and Nuclear Engineering. The materials engineering track consists of a core curriculum in material science, metallurgy, and materials performance, which is to be augmented by advanced level classes in corrosion engineering, physical metallurgy, mechanical metallurgy, mechanics of materials, and nuclear materials. The nuclear engineering track consists of a core curriculum in applied nuclear science and engineering, coupled with advanced classes in the student's sub discipline.

**For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

In addition to the general requirements for admission to the Graduate College, an applicant for the M.S. program must complete the following requirements:

1. Applicants must complete the on-line process in the "Apply Yourself (AY)" system.
2. In addition to the required information in the general AY application system, the Mechanical Engineering Department has two additional requirements which can also be submitted in the AY system as optional items. Electronic submission is the preferred method. If these items are not completed in the AY system before you finish and make payment, you cannot go back and do them

electronically afterwards. In this case, you must mail hardcopies to the Mechanical Engineering Department. The two items are:

1. A written statement of purpose indicating interests and objectives in working toward a M.S. degree.
2. Two letters of recommendation. There is no specified format. Your references should point out the qualifications that make you a good candidate for admission.
3. The applicant must have a bachelor's degree in engineering or a closely related discipline. Students with non-engineering backgrounds will be required to complete a set of course work requirements that will assure successful completion of the M.S. specialization and qualify the student to sit for the Fundamentals of Engineering (FE) exam. The Graduate Program Committee (GPC) will decide upon special cases.
4. The applicant must submit his/her official copy of the Graduate Record Examination (GRE) test scores. To be admitted to the graduate program in Mechanical Engineering, the applicant must be at or above the 75 percentile range (of the group taking the GRE when the applicant takes the exam) in the quantitative reasoning section of the exam. If the applicant is less than 75 percent, at the discretion of the Department of Mechanical Engineering, the applicant may be provisionally admitted to the graduate program with the requirement that he/she retake the GRE during the first semester after admission. If the applicant fails to retake the GRE during the first semester after admission or if the applicant fails to be at or above the 75 percent range in the quantitative reasoning section of the exam after retaking the exam, at its discretion, the Department of Mechanical Engineering may remove the applicant from the graduate program. The GRE university code for UNLV is 4861. The Mechanical Engineering Department code is 1502.
5. The GPC will examine the applicant's academic record and will make the final determination of the applicant's

admissibility to the M.S. program. In general, a minimum post baccalaureate GPA of 3.00 on a 4.00 scale or equivalent is required for admission in addition to a GPA of 3.00 on a 4.00 scale or equivalent in all engineering courses.

6. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Our department admissions committee looks at all of these requirements when making admissions decisions.

The Integrated BS-MS degree program is designed to provide high-achieving MEG undergraduate students with the opportunity to be exposed to graduate courses and to encourage them to continue with graduate degree by reducing the time needed for degree completion. Up to nine credit hours of approved graduate-level course work can be taken as technical electives for the grade of B or better during the senior year and those credit hours will be waived for the graduate degree. The following conditions are needed to enroll in the Integrated BS-MS program:

1. A minimum of two semesters of full-time enrollment in B.S. of Mechanical Engineering program is required.
2. Applications are normally submitted with two semesters remaining in the senior year.
3. A minimum of 90 credit hours of course work applicable to the B.S. of Mechanical Engineering degree with a cumulative GPA of 3.50 or higher must be completed before beginning the joint degree program.
4. Student has to choose the thesis option.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Non-Thesis Track**

Total Credits Required: 30

Course Requirements

**Required Courses - Credits: 9**

Select one of the following specializations and complete three courses:

*Materials Engineering*

ME 630 - Corrosion Engineering  
ME 732 - Mechanical Metallurgy  
ME 734 - Fracture of Engineering Materials  
ME 741 - Energy and Variational Methods in Applied Mechanics I

*Nuclear Engineering*

ME 655 - Fundamentals of Nuclear Engineering  
ME 706 - Convective Heat Transfer  
ME 754 - Introduction to Nuclear Criticality Safety  
ME 755 - Nuclear Criticality Safety Engineering  
ME 756 - Monte Carlo Methods in Nuclear Engineering  
ME 760 - Waste Management And The Nuclear Fuel Cycle  
ME 762 - Nuclear Power Engineering  
ME 763 - Nuclear Reactor Analysis  
PHYS 631 - Nuclear and Elementary Particle Physics  
Or  
RDCH 701 - Applied Nuclear Physics

**Electives - Credits: 18**

Complete 18 credits of elective coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

*Suggested Electives for Materials Engineering Track*

ME 646 - Composite Materials  
ME 650 - Physical Metallurgy  
ME 670 - Experimental Mechanics of Materials  
ME 742 - Energy and Variational Methods in Applied Mechanics II

*Suggested Electives for Nuclear Engineering Track*

ME 615 - Design of Thermal Systems  
ME 702 - Computational Fluid Dynamics  
ME 705 - Conduction Heat Transfer  
ME 707 - Radiation Heat Transfer  
ME 708 - Convective Boiling and Condensation  
ME 711 - Advanced Thermodynamics

**Design Project - Credits: 3**

ME 796 - Design Project in Mechanical Engineering

Degree Requirements

1. Requires 30 credits of approved graduate courses. At least 18 credits must be earned from 700-level courses, and 15 credits must be in engineering.
2. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00 scale), no grades below C, (C- is not acceptable) and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
3. Only those courses in which a student received a grade of C or better may be used for graduate credit. Students must comply with Graduate College policy.
4. Each student's program should show suitable breadth and coherence. As specified in the Graduate Catalog, the program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the program must receive departmental approval. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate

engineering program if they neglect this requirement.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Successfully complete a design project.

#### Subplan 2 Requirements: Thesis Track

Total Credits Required: 30

#### Course Requirements

#### Required Courses - Credits: 9

Select one of the following specializations and complete three courses:

##### *Materials Engineering*

ME 630 - Corrosion Engineering  
ME 732 - Mechanical Metallurgy  
ME 734 - Fracture of Engineering Materials  
ME 741 - Energy and Variational Methods in Applied Mechanics I

##### *Nuclear Engineering*

ME 655 - Fundamentals of Nuclear Engineering  
ME 706 - Convective Heat Transfer  
ME 754 - Introduction to Nuclear Criticality Safety  
ME 755 - Nuclear Criticality Safety Engineering  
ME 756 - Monte Carlo Methods in Nuclear Engineering  
ME 760 - Waste Management And The Nuclear Fuel Cycle  
ME 762 - Nuclear Power Engineering  
ME 763 - Nuclear Reactor Analysis  
PHYS 631 - Nuclear and Elementary Particle Physics  
Or  
RDCH 701 - Applied Nuclear Physics

#### Electives - Credits: 15

Complete 15 credits of elective coursework from within the College of Engineering. Courses from

outside the College of Engineering may be taken with advisor approval.

##### *Suggested Electives for Materials Engineering Track*

ME 646 - Composite Materials  
ME 650 - Physical Metallurgy  
ME 670 - Experimental Mechanics of Materials  
ME 742 - Energy and Variational Methods in Applied Mechanics II

##### *Suggested Electives for Nuclear Engineering Track*

ME 615 - Design of Thermal Systems  
ME 702 - Computational Fluid Dynamics  
ME 705 - Conduction Heat Transfer  
ME 707 - Radiation Heat Transfer  
ME 708 - Convective Boiling and Condensation

ME 711 - Advanced Thermodynamics

#### Thesis - Credits: 6

ME 796 - Design Project in Mechanical Engineering

#### Degree Requirements

1. Requires 24 credits of approved graduate courses plus six credits of work associated with the master's level thesis, for a total of 30 credits. At least 15 credits must be earned from 700-level courses, and at least 15 credits must be in engineering. The final examination will include a defense of thesis.
2. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00 scale), no grades below C, (C- is not acceptable) and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.

3. Only those courses in which a student received a grade of C or better may be used for graduate credit. Students must comply with Graduate College policy.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Each student's program should show suitable breadth and coherence. As specified in the Graduate Catalog, the program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 3 Requirements: Integrated BS-MS Track**

Total Credits Required: 21-27

#### Course Requirements

##### **Required Courses - Credits: 9**

Select one of the following specializations and complete three courses:

##### *Materials Engineering*

ME 630 - Corrosion Engineering  
 ME 732 - Mechanical Metallurgy  
 ME 734 - Fracture of Engineering Materials  
 ME 741 - Energy and Variational Methods in Applied Mechanics I

##### *Nuclear Engineering*

ME 655 - Fundamentals of Nuclear Engineering  
 ME 706 - Convective Heat Transfer  
 ME 754 - Introduction to Nuclear Criticality Safety  
 ME 755 - Nuclear Criticality Safety Engineering  
 ME 756 - Monte Carlo Methods in Nuclear Engineering  
 ME 760 - Waste Management And The Nuclear Fuel Cycle  
 ME 762 - Nuclear Power Engineering  
 ME 763 - Nuclear Reactor Analysis  
 PHYS 631 - Nuclear and Elementary Particle Physics  
 Or  
 RDCH 701 - Applied Nuclear Physics

##### **Electives - Credits: 6-12**

Complete 6-12 credits of elective coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

##### *Suggested Electives for Materials Engineering Track*

ME 615 - Design of Thermal Systems  
 ME 646 - Composite Materials  
 ME 650 - Physical Metallurgy  
 ME 670 - Experimental Mechanics of Materials  
 ME 742 - Energy and Variational Methods in Applied Mechanics II

##### *Suggested Electives for Nuclear Engineering Track*

ME 615 - Design of Thermal Systems  
 ME 702 - Computational Fluid Dynamics



ME 705 - Conduction Heat Transfer  
ME 707 - Radiation Heat Transfer  
ME 708 - Convective Boiling and Condensation  
ME 711 - Advanced Thermodynamics

### **Thesis - Credits: 6**

ME 796 - Design Project in Mechanical Engineering

#### Degree Requirements

1. Total credits required depends on the total number of approved graduate-level course work taken as technical electives (with a grade of B or better) during the senior year.
2. Requires 15-21 credits of approved graduate courses plus six credits of work associated with the master's level thesis, for a total of 21-27 credits. At least 15 credits must be earned from 700-level courses, and at least 15 credits must be in engineering. The final examination will include a defense of thesis.
3. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00 scale), no grades below C, (C- is not acceptable) and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
4. Only those courses in which a student received a grade of C or better may be used for graduate credit. Students must comply with Graduate College policy.
5. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion.

Please see Graduate College policy for committee appointment guidelines.

6. Each student's program should show suitable breadth and coherence. As specified in the Graduate Catalog, the program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## Master of Science in Aerospace Engineering

### Plan Description

The objectives of the M.S.A.E. degree are to provide a quality graduate educational program that will complement the existing undergraduate and graduate curricula in mechanical engineering. The aerospace graduate program will improve and enhance the capabilities of those students seeking careers in the aerospace field and supporting engineering work for the aerospace and aviation technology community. The majority of students seeking the M.S.A.E. degree will have undergraduate degrees in the fields of mechanical or aerospace engineering, or closely related fields of engineering, applied physics, or applied mathematics; some will already have graduate degrees in the more conventional areas of engineering or the sciences. Those individuals with engineering (as well as physical science) interests will use the M.S.A.E. to develop careers as well as improve their skills in the aerospace and aviation industry. Students enrolling in the program on a full-time basis will likely assist engineering faculty in obtaining sponsored project funding and performing innovative aerospace and aviation engineering research.

**For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

In addition to the general requirements for admission to the Graduate College, an applicant for the M.S. program must complete the following requirements:

1. Applicants must complete the on-line process in the "Apply Yourself (AY)" system.
2. In addition to the required information in the general AY application system, the Mechanical Engineering Department has two additional requirements which can also

be submitted in the AY system as optional items. Electronic submission is the preferred method. If these items are not completed in the AY system before you finish and make payment, you cannot go back and do them electronically afterwards. In this case, you must mail hardcopies to the Mechanical Engineering Department. The two items are:

1. A written statement of purpose indicating interests and objectives in working toward a M.S. degree.
2. Two letters of recommendation. There is no specified format. Your references should point out the qualifications that make you a good candidate for admission.
3. The applicant must have a bachelor's degree in engineering or a closely related discipline. Students with non-engineering backgrounds will be required to complete a set of course work requirements that will assure successful completion of the M.S. specialization and qualify the student to sit for the Fundamentals of Engineering (FE) exam. The Graduate Program Committee (GPC) will decide upon special cases.
4. The applicant must submit his/her official copy of the Graduate Record Examination (GRE) test scores. To be admitted to the graduate program in Mechanical Engineering, the applicant must be at or above the 75 percentile range (of the group taking the GRE when the applicant takes the exam) in the quantitative reasoning section of the exam. If the applicant is less than 75 percent, at the discretion of the Department of Mechanical Engineering, the applicant may be provisionally admitted to the graduate program with the requirement that he/she retake the GRE during the first semester after admission. If the applicant fails to retake the GRE during the first semester after admission or if the applicant fails to be at or above the 75 percent range in the quantitative reasoning section of the exam after retaking the exam, at its discretion, the Department of Mechanical Engineering may remove the applicant from the graduate program. The GRE university

code for UNLV is 4861. The Mechanical Engineering Department code is 1502.

5. The GPC will examine the applicant's academic record and will make the final determination of the applicant's admissibility to the M.S. program. In general, a minimum post baccalaureate GPA of 3.00 on a 4.00 scale or equivalent is required for admission in addition to a GPA of 3.00 on a 4.00 scale or equivalent in all engineering courses.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Our department admissions committee looks at all of these requirements when making admissions decisions.

The Integrated BS-MS degree program is designed to provide high-achieving MEG undergraduate students with the opportunity to be exposed to graduate courses and to encourage them to continue with graduate degree by reducing the time needed for degree completion. Up to nine credit hours of approved graduate-level course work can be taken as technical electives for the grade of B or better during the senior year and those credit hours will be waived for the graduate degree. The following conditions are needed to enroll in the Integrated BS-MS program:

1. A minimum of two semesters of full-time enrollment in B.S. of Mechanical Engineering program is required.
2. Applications are normally submitted with two semesters remaining in the senior year.
3. A minimum of 90 credit hours of course work applicable to the B.S. of Mechanical Engineering degree with a cumulative GPA of 3.50 or higher must be completed before beginning the joint degree program.
4. Student has to choose the thesis option.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Non-Thesis Track**

Total Credits Required: 30

Course Requirements

#### **Required Courses – Credits: 9**

Complete three of the following courses:

ME 609 - Turbomachinery  
ME 700 - Advanced Fluid Mechanics I  
ME 701 - Advanced Fluid Mechanics II  
ME 702 - Computational Fluid Dynamics  
ME 705 - Conduction Heat Transfer  
ME 706 - Convective Heat Transfer  
ME 740 - Advanced Dynamics  
ME 741 - Energy and Variational Methods in Applied Mechanics I

#### **Core Courses – Credits: 6**

Complete two of the following courses:

ME 704 - Finite Element Applications in Mechanical Engineering  
ME 711 - Advanced Thermodynamics  
ME 717 - Transport Phenomena  
ME 720 - Acoustics I  
ME 721 - Acoustics II  
ME 725 - Vibrations I  
ME 726 - Vibrations II  
ME 729 - Advanced Robotics  
ME 774 - Introduction to Theory of Elasticity and Plasticity I  
ME 777 - Application of High-Performance Computing Methods in Science and Engineering

#### **Elective Courses – Credits: 12**

Complete 12 credits of elective coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

#### **Design Project – Credits: 3**

ME 796 - Design Project in Mechanical Engineering

Degree Requirements

1. Requires 33 credits of approved graduate courses. At least 18 credits must be earned from 700-level courses, and 15 credits must be in engineering.
2. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00 scale), no grades below C, (C- is not acceptable) and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
3. Only those courses in which a student received a grade of C or better may be used for graduate credit. Students must comply with Graduate College policy.
4. Each student's program should show suitable breadth and coherence. As specified in the Graduate Catalog, the program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Successfully complete a design project.

#### **Subplan 2 Requirements: Thesis Track**

Total Credits Required: 30

#### Course Requirements

##### **Required Courses – Credits: 9**

Complete three of the following courses:

ME 609 - Turbomachinery  
 ME 700 - Advanced Fluid Mechanics I  
 ME 701 - Advanced Fluid Mechanics II  
 ME 702 - Computational Fluid Dynamics  
 ME 705 - Conduction Heat Transfer  
 ME 706 - Convective Heat Transfer  
 ME 740 - Advanced Dynamics  
 ME 741 - Energy and Variational Methods in Applied Mechanics I

##### **Core Courses – Credits: 6**

Complete two of the following courses:

ME 704 - Finite Element Applications in Mechanical Engineering  
 ME 711 - Advanced Thermodynamics  
 ME 717 - Transport Phenomena  
 ME 720 - Acoustics I  
 ME 721 - Acoustics II  
 ME 725 - Vibrations I  
 ME 726 - Vibrations II  
 ME 729 - Advanced Robotics  
 ME 774 - Introduction to Theory of Elasticity and Plasticity I  
 ME 777 - Application of High-Performance Computing Methods in Science and Engineering

##### **Elective Courses – Credits: 9**

Complete 9 credits of elective coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

##### **Thesis – Credits: 6**

ME 797 - Thesis in Mechanical Engineering

#### Degree Requirements

1. Requires 24 credits of approved graduate courses plus six credits of work associated with the master's level thesis, for a total of 30 credits. At least 15 credits must be earned from 700-level courses, and at least 15

- credits must be in engineering. The final examination will include a defense of thesis.
2. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00 scale), no grades below C, (C- is not acceptable) and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
  3. Only those courses in which a student received a grade of C or better may be used for graduate credit. Students must comply with Graduate College policy.
  4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
  5. Each student's program should show suitable breadth and coherence. As specified in the Graduate Catalog, the program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 3 Requirements: Integrated BS-MS Track**

Total Credits Required: 21-27

#### Course Requirements

#### **Required Courses – Credits: 9**

Complete three of the following courses:

ME 609 - Turbomachinery  
 ME 700 - Advanced Fluid Mechanics I  
 ME 701 - Advanced Fluid Mechanics II  
 ME 702 - Computational Fluid Dynamics  
 ME 705 - Conduction Heat Transfer  
 ME 706 - Convective Heat Transfer  
 ME 740 - Advanced Dynamics  
 ME 741 - Energy and Variational Methods in Applied Mechanics I

#### **Core Courses – Credits: 6**

Complete two of the following courses:

ME 704 - Finite Element Applications in Mechanical Engineering  
 ME 711 - Advanced Thermodynamics  
 ME 717 - Transport Phenomena  
 ME 720 - Acoustics I  
 ME 721 - Acoustics II  
 ME 725 - Vibrations I  
 ME 726 - Vibrations II  
 ME 729 - Advanced Robotics  
 ME 774 - Introduction to Theory of Elasticity and Plasticity I

ME 777 - Application of High-Performance Computing Methods in Science and Engineering

**Electives – Credits: 0-6**

Complete 0-6 credits of elective coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

**Thesis – Credits: 6**

ME 797 - Thesis in Mechanical Engineering

**Degree Requirements**

1. Total credits required depends on the total number of approved graduate-level course work taken as technical electives (with a grade of B or better) during the senior year.
2. Requires 15-21 credits of approved graduate courses plus six credits of work associated with the master's level thesis, for a total of 21-27 credits. At least 15 credits must be earned from 700-level courses, and at least 15 credits must be in engineering. The final examination will include a defense of thesis.
3. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00 scale), no grades below C, (C- is not acceptable) and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
4. Only those courses in which a student received a grade of C or better may be used for graduate credit. Students must comply with Graduate College policy.
5. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In

addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

6. Each student's program should show suitable breadth and coherence. As specified in the Graduate Catalog, the program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

**Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## Master of Science in Engineering - Mechanical Engineering

### Plan Description

The Master of Science degree is designed to give post baccalaureate students a broad understanding of the mechanical engineering field while providing some depth in a specific option area. Option areas include Dynamic Systems and Controls, Fluid and Thermal Sciences, Materials and Mechanics, Engineering Management, Mechanical and Environmental Systems, Nuclear Engineering, and Aerospace Engineering. Applicants who choose the M.S.E. program usually have an interest in more than one aspect of Mechanical Engineering. They are interested in gaining research and/or design experience to become better prepared for the workforce or further graduate study. Graduates from the program have gone to work in a broad range of industries including automotive, aerospace, nuclear, energy, oil, entertainment, HVAC, defense, utilities, and manufacturing. Graduates have also enrolled in some of the top Ph.D. programs in the country.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

In addition to the general requirements for admission to the Graduate College, an applicant for the M.S. program must complete the following requirements:

1. Applicants must complete the on-line process in the "Apply Yourself (AY)" system.
2. In addition to the required information in the general AY application system, the Mechanical Engineering Department has two additional requirements which can also be submitted in the AY system as optional items. Electronic submission is the preferred method. If these items are not completed in

the AY system before you finish and make payment, you cannot go back and do them electronically afterwards. In this case, you must mail hardcopies to the Mechanical Engineering Department. The two items are:

1. A written statement of purpose indicating interests and objectives in working toward a M.S. degree.
2. Two letters of recommendation. There is no specified format. Your references should point out the qualifications that make you a good candidate for admission.
3. The applicant must have a bachelor's degree in engineering or a closely related discipline. Students with non-engineering backgrounds will be required to complete a set of course work requirements that will assure successful completion of the M.S. specialization and qualify the student to sit for the Fundamentals of Engineering (FE) exam. The Graduate Program Committee (GPC) will decide upon special cases.
4. The applicant must submit his/her official copy of the Graduate Record Examination (GRE) test scores. To be admitted to the graduate program in Mechanical Engineering, the applicant must be at or above the 75 percentile range (of the group taking the GRE when the applicant takes the exam) in the quantitative reasoning section of the exam. If the applicant is less than 75 percent, at the discretion of the Department of Mechanical Engineering, the applicant may be provisionally admitted to the graduate program with the requirement that he/she retake the GRE during the first semester after admission. If the applicant fails to retake the GRE during the first semester after admission or if the applicant fails to be at or above the 75 percent range in the quantitative reasoning section of the exam after retaking the exam, at its discretion, the Department of Mechanical Engineering may remove the applicant from the graduate program. The GRE university code for UNLV is 4861. The Mechanical Engineering Department code is 1502.

5. The GPC will examine the applicant's academic record and will make the final determination of the applicant's admissibility to the M.S. program. In general, a minimum post baccalaureate GPA of 3.00 on a 4.00 scale or equivalent is required for admission in addition to a GPA of 3.00 on a 4.00 scale or equivalent in all engineering courses.
6. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Our department admissions committee looks at all of these requirements when making admissions decisions.

The Integrated BS-MS degree program is designed to provide high-achieving MEG undergraduate students with the opportunity to be exposed to graduate courses and to encourage them to continue with graduate degree by reducing the time needed for degree completion. Up to nine credit hours of approved graduate-level course work can be taken as technical electives for the grade of B or better during the senior year and those credit hours will be waived for the graduate degree. The following conditions are needed to enroll in the Integrated BS-MS program:

1. A minimum of two semesters of full-time enrollment in B.S. of Mechanical Engineering program is required.
2. Applications are normally submitted with two semesters remaining in the senior year.
3. A minimum of 90 credit hours of course work applicable to the B.S. of Mechanical Engineering degree with a cumulative GPA of 3.50 or higher must be completed before beginning the joint degree program.
4. Student has to choose the thesis option.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Non-Thesis Track**

Total Credits Required: 30

Course Requirements

#### **Required Courses – Credits: 9**

Select one of the following specializations and complete three courses:

#### *Dynamic Systems and Controls*

- ME 625 - Robotics
- ME 629 - Computer Control of Machines and Processes
- ME 653 - Mechanical Vibrations
- ME 725 - Vibrations I
- ME 726 - Vibrations II
- ME 729 - Advanced Robotics
- ME 740 - Advanced Dynamics
- ME 741 - Energy and Variational Methods in Applied Mechanics I
- ME 746 - Experimental Design and Analysis of Digital Process Control Systems

#### *Fluid/Thermosciences*

- ME 700 - Advanced Fluid Mechanics I
- ME 701 - Advanced Fluid Mechanics II
- ME 702 - Computational Fluid Dynamics
- ME 703 - Continuum Mechanics
- ME 704 - Finite Element Applications in Mechanical Engineering
- ME 705 - Conduction Heat Transfer
- ME 706 - Convective Heat Transfer
- ME 707 - Radiation Heat Transfer
- ME 708 - Convective Boiling and Condensation
- ME 710 - Transport Phenomena in Bioengineering
- ME 711 - Advanced Thermodynamics
- ME 714 - Computational Aspects of Solar Energy
- ME 717 - Transport Phenomena

#### *Materials and Mechanics*

- ME 641 - Advanced Mechanical Engineering Design
- ME 643 - Design Techniques in Mechanical Engineering
- ME 646 - Composite Materials
- ME 732 - Mechanical Metallurgy
- ME 734 - Fracture of Engineering Materials



ME 741 - Energy and Variational Methods in Applied Mechanics I  
ME 742 - Energy and Variational Methods in Applied Mechanics II  
ME 743 - Applied Dynamic Finite Element Analysis

#### *Engineering Management*

CEE 609 - Engineering Project Management  
MBA 763 - Leadership, Teams, and Individuals  
MBA 769 - Applied Economic Analysis  
MBA 767 - Market Opportunity Analysis  
MBA 771 - Law and Ethics  
MBA 775 - Data Modeling and Analysis  
ME 626 - Manufacturing Processes  
ME 701 - Advanced Fluid Mechanics II  
ME 727 - Engineering Optimization

#### *Mechanical and Environmental Systems*

ME 618 - Air Conditioning Engineering Systems  
ME 634 - Noise Control  
ME 653 - Mechanical Vibrations  
ME 700 - Advanced Fluid Mechanics I  
ME 706 - Convective Heat Transfer  
ME 720 - Acoustics I  
ME 721 - Acoustics II  
ME 725 - Vibrations I  
ME 726 - Vibrations II

#### *Nuclear Engineering*

ME 630 - Corrosion Engineering  
ME 655 - Fundamentals of Nuclear Engineering  
ME 656 - Radioactive Waste Management  
ME 705 - Conduction Heat Transfer  
ME 706 - Convective Heat Transfer  
ME 707 - Radiation Heat Transfer  
ME 708 - Convective Boiling and Condensation

#### *Aerospace*

ME 700 - Advanced Fluid Mechanics I  
ME 701 - Advanced Fluid Mechanics II  
ME 702 - Computational Fluid Dynamics  
ME 705 - Conduction Heat Transfer  
ME 706 - Convective Heat Transfer  
ME 740 - Advanced Dynamics  
ME 741 - Energy and Variational Methods in Applied Mechanics I

#### **Electives – Credits: 18**

Complete 18 credits of elective coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

#### **Design Project – Credits: 3**

ME 796 - Design Project in Mechanical Engineering

#### Degree Requirements

1. Requires 30 credits of approved graduate courses. At least 18 credits must be earned from 700-level courses, and 15 credits must be in engineering.
2. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00 scale), no grades below C, (C- is not acceptable) and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
3. Only those courses in which a student received a grade of C or better may be used for graduate credit. Students must comply with Graduate College policy.
4. Each student's program should show suitable breadth and coherence. As specified in the Graduate Catalog, the program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate

engineering program if they neglect this requirement.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Successfully complete a design project.

#### **Subplan 2 Requirements: Thesis Track**

Total Credits Required: 30

#### Course Requirements

#### **Required Courses – Credits: 9**

Select one of the following specializations and complete three courses:

##### *Dynamic Systems and Controls*

ME 625 - Robotics  
ME 629 - Computer Control of Machines and Processes  
ME 653 - Mechanical Vibrations  
ME 725 - Vibrations I  
ME 726 - Vibrations II  
ME 729 - Advanced Robotics  
ME 740 - Advanced Dynamics  
ME 741 - Energy and Variational Methods in Applied Mechanics I  
ME 746 - Experimental Design and Analysis of Digital Process Control Systems

##### *Fluid/Thermosciences*

ME 700 - Advanced Fluid Mechanics I  
ME 701 - Advanced Fluid Mechanics II  
ME 702 - Computational Fluid Dynamics  
ME 703 - Continuum Mechanics  
ME 704 - Finite Element Applications in Mechanical Engineering  
ME 705 - Conduction Heat Transfer  
ME 706 - Convective Heat Transfer  
ME 707 - Radiation Heat Transfer  
ME 708 - Convective Boiling and Condensation  
ME 710 - Transport Phenomena in Bioengineering  
ME 711 - Advanced Thermodynamics

ME 714 - Computational Aspects of Solar Energy  
ME 717 - Transport Phenomena

##### *Materials and Mechanics*

ME 641 - Advanced Mechanical Engineering Design  
ME 643 - Design Techniques in Mechanical Engineering  
ME 646 - Composite Materials  
ME 732 - Mechanical Metallurgy  
ME 734 - Fracture of Engineering Materials  
ME 741 - Energy and Variational Methods in Applied Mechanics I  
ME 742 - Energy and Variational Methods in Applied Mechanics II  
ME 743 - Applied Dynamic Finite Element Analysis

##### *Engineering Management*

CEE 609 - Engineering Project Management  
MBA 763 - Leadership, Teams, and Individuals  
MBA 769 - Applied Economic Analysis  
MBA 767 - Market Opportunity Analysis  
MBA 771 - Law and Ethics  
MBA 775 - Data Modeling and Analysis  
ME 626 - Manufacturing Processes  
ME 701 - Advanced Fluid Mechanics II  
ME 727 - Engineering Optimization

##### *Mechanical and Environmental Systems*

ME 618 - Air Conditioning Engineering Systems  
ME 634 - Noise Control  
ME 653 - Mechanical Vibrations  
ME 700 - Advanced Fluid Mechanics I  
ME 706 - Convective Heat Transfer  
ME 720 - Acoustics I  
ME 721 - Acoustics II  
ME 725 - Vibrations I  
ME 726 - Vibrations II

##### *Nuclear Engineering*

ME 630 - Corrosion Engineering  
ME 655 - Fundamentals of Nuclear Engineering  
ME 656 - Radioactive Waste Management  
ME 705 - Conduction Heat Transfer  
ME 706 - Convective Heat Transfer  
ME 707 - Radiation Heat Transfer  
ME 708 - Convective Boiling and Condensation

## *Aerospace*

ME 700 - Advanced Fluid Mechanics I  
ME 701 - Advanced Fluid Mechanics II  
ME 702 - Computational Fluid Dynamics  
ME 705 - Conduction Heat Transfer  
ME 706 - Convective Heat Transfer  
ME 740 - Advanced Dynamics  
ME 741 - Energy and Variational Methods in Applied Mechanics I

### **Electives – Credits: 15**

Complete 15 credits of elective coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

### **Thesis – Credits: 6**

ME 797 - Thesis in Mechanical Engineering

### **Degree Requirements**

1. Requires 24 credits of approved graduate courses plus six credits of work associated with the master's level thesis, for a total of 30 credits. At least 15 credits must be earned from 700-level courses, and at least 15 credits must be in engineering. The final examination will include a defense of thesis.
2. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00 scale), no grades below C, (C- is not acceptable) and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
3. Only those courses in which a student received a grade of C or better may be used

for graduate credit. Students must comply with Graduate College policy.

4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Each student's program should show suitable breadth and coherence. As specified in the Graduate Catalog, the program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

### **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 3 Requirements: Integrated BS-MS Track**

Total Credits Required: 21-27

### **Course Requirements**

**Required Courses – Credits: 9**

Select one of the following specializations and complete three courses:

*Dynamic Systems and Controls*

ME 625 - Robotics  
ME 629 - Computer Control of Machines and Processes  
ME 653 - Mechanical Vibrations  
ME 725 - Vibrations I  
ME 726 - Vibrations II  
ME 729 - Advanced Robotics  
ME 740 - Advanced Dynamics  
ME 741 - Energy and Variational Methods in Applied Mechanics I  
ME 746 - Experimental Design and Analysis of Digital Process Control Systems

*Fluid/Thermosciences*

ME 700 - Advanced Fluid Mechanics I  
ME 701 - Advanced Fluid Mechanics II  
ME 702 - Computational Fluid Dynamics  
ME 703 - Continuum Mechanics  
ME 704 - Finite Element Applications in Mechanical Engineering  
ME 705 - Conduction Heat Transfer  
ME 706 - Convective Heat Transfer  
ME 707 - Radiation Heat Transfer  
ME 708 - Convective Boiling and Condensation  
ME 710 - Transport Phenomena in Bioengineering  
ME 711 - Advanced Thermodynamics  
ME 714 - Computational Aspects of Solar Energy  
ME 717 - Transport Phenomena

*Materials and Mechanics*

ME 641 - Advanced Mechanical Engineering Design  
ME 643 - Design Techniques in Mechanical Engineering  
ME 646 - Composite Materials  
ME 732 - Mechanical Metallurgy  
ME 734 - Fracture of Engineering Materials  
ME 741 - Energy and Variational Methods in Applied Mechanics I  
ME 742 - Energy and Variational Methods in Applied Mechanics II  
ME 743 - Applied Dynamic Finite Element Analysis

*Engineering Management*

CEE 609 - Engineering Project Management  
MBA 763 - Leadership, Teams, and Individuals  
MBA 769 - Applied Economic Analysis  
MBA 767 - Market Opportunity Analysis  
MBA 771 - Law and Ethics  
MBA 775 - Data Modeling and Analysis  
ME 626 - Manufacturing Processes  
ME 701 - Advanced Fluid Mechanics II  
ME 727 - Engineering Optimization

*Mechanical and Environmental Systems*

ME 618 - Air Conditioning Engineering Systems  
ME 634 - Noise Control  
ME 653 - Mechanical Vibrations  
ME 700 - Advanced Fluid Mechanics I  
ME 706 - Convective Heat Transfer  
ME 720 - Acoustics I  
ME 721 - Acoustics II  
ME 725 - Vibrations I  
ME 726 - Vibrations II

*Nuclear Engineering*

ME 630 - Corrosion Engineering  
ME 655 - Fundamentals of Nuclear Engineering  
ME 656 - Radioactive Waste Management  
ME 705 - Conduction Heat Transfer  
ME 706 - Convective Heat Transfer  
ME 707 - Radiation Heat Transfer  
ME 708 - Convective Boiling and Condensation

*Aerospace*

ME 700 - Advanced Fluid Mechanics I  
ME 701 - Advanced Fluid Mechanics II  
ME 702 - Computational Fluid Dynamics  
ME 705 - Conduction Heat Transfer  
ME 706 - Convective Heat Transfer  
ME 740 - Advanced Dynamics  
ME 741 - Energy and Variational Methods in Applied Mechanics I

**Electives – Credits: 6-12**

Complete 6-12 credits of elective coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

## **Thesis – Credits: 6**

### ME 797 - Thesis in Mechanical Engineering

#### Degree Requirements

1. Total credits required depends on the total number of approved graduate-level course work taken as technical electives (with a grade of B or better) during the senior year.
2. Requires 15-21 credits of approved graduate courses plus six credits of work associated with the master's level thesis, for a total of 21-27 credits. At least 15 credits must be earned from 700-level courses, and at least 15 credits must be in engineering. The final examination will include a defense of thesis.
3. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of at least six credits of the approved program per calendar year, maintenance of a GPA of 3.00 (4.00 scale), no grades below C, (C- is not acceptable) and compliance with the letter and spirit of the Graduate Catalog and published policies of the Howard R. Hughes College of Engineering. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise it to 3.00 or above.
4. Only those courses in which a student received a grade of C or better may be used for graduate credit. Students must comply with Graduate College policy.
5. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Each student's program should show suitable breadth and coherence. As specified in the

Graduate Catalog, the program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the program must receive approval by the student's committee. An approved program must be filed before the completion of nine credits of course work after admission (regular or provisional). The responsibility rests with the student. Students will be dropped from the graduate engineering program if they neglect this requirement.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## Mechanical Engineering Courses

ME 600 - Intermediate Fluid Mechanics  
Credits 3

Basic laws and equations of fluid flow; very viscous flow solutions; boundary layer flows; potential flows; wave phenomena; transport phenomena; turbulence.

**Notes** This course is crosslisted with ME 400. Credit at the 600-level requires additional work.

ME 602 - Computational Methods for Engineers  
Credits 3

Applied numerical analysis for linear and nonlinear engineering problems. Systems of linear equations, nonlinear equations, and eigen value problems.

Approximate numerical integration and differentiation. Development of numerical methods for initial and boundary value problems of ordinary differential equations. Introduction to the numerical solution of partial differential equations.

**Notes** This course is crosslisted with ME 402. Credit at the 600-level requires additional work.

ME 609 - Turbomachinery  
Credits 3

Types of turbomachines, applications of turbomachines, and performance characteristics. Energy transfer in turbomachines. Fundamentals of turbomachinery. Applications of the principles of fluid mechanics, thermodynamics and aerodynamics to the design and analysis of pumps, fans, blowers, compressors, gas turbines, steam turbines, hydraulic turbines, and wind turbines are incorporated.

**Prerequisites** ME 311 and ME 380, or equivalent.

ME 611 - Engineering Thermodynamics II  
Credits 3

This advanced undergraduate course is available for graduate credit.

ME 615 - Design of Thermal Systems  
Credits 3

Design of thermal systems and subsystems, especially as they relate to current and new means of energy utilization and power generation; computer simulation and optimization of thermal systems based on performance and economic constraints.

**Notes** This course is crosslisted with ME 415. Credit at the 600-level requires additional work.

ME 616 - Introduction to Biomechanical Engineering  
Credits 3

Fundamental engineering principles in several engineering areas to problems in the biological world. Discussion includes biomechanics of solids, biofluid and transport phenomena, biomaterials, cell and tissue engineering, medical imaging and electrophoresis.

**Notes** This course is crosslisted with ME 416. Credit at the 600-level requires additional work.

ME 617 - Introduction to Fuel Cell  
Credits 3

Fuel Cell Principles, Fuel Cell Thermodynamics, Fuel Cell Reaction Kinetics, Fuel Cell Charge Transport, Fuel Cell Mass Transport, Fuel Cell Modeling, Fuel Cell Characterization, Fuel Cell Technology, Fuel Cell Types and Systems.

**Prerequisites** ME 311, ME 314, ME 380.

ME 618 - Air Conditioning Engineering Systems  
Credits 3

Analysis and design of air conditioning systems, load calculations, system selection, duct sizing, and controls. Relationships between internal and external environments. Development of economic, functional and energy conserving concepts in air conditioning design.

**Notes** This course is crosslisted with ME 418. Credit at the 600-level requires additional work.

ME 619 - Advanced HVAC and Energy Conservation Systems  
Credits 3

Room air distribution. Fan and building air distribution. Mass transfer and humidity measurement. Direct contact heat and mass transfer extended surface heat exchangers. Refrigeration. Current energy conservation technologies, computer simulations of dynamic building energy demand.

**Notes** This course is crosslisted with ME 419. Credit at the 600-level requires additional work.

ME 625 - Robotics  
Credits 3

Instruction to basic concept and theory behind

motions generated by robot manipulators; kinematics, dynamics, and trajectory generation. Design of basic feedback position controllers and computer simulation techniques of robot dynamics and control system.

**Notes** This course is crosslisted with ME 425. Credit at the 600-level requires additional work.

ME 626 - Manufacturing Processes  
Credits 3

Survey of the principal processes used to cast, form, machine, and join material. Tolerances, statistical quality control, costs, operation sequencing, and design for productivity covered. Research paper on related topic required.

**Notes** This course is crosslisted with ME 426. Credit at the 600-level requires additional work.

ME 627 - Manufacturing Systems  
Credits 3

Study of the ways of organizing people and equipment so that production can be performed more efficiently. Includes production lines design, CIM, GT, FMS, production planning, inventory control and MRP, lean production, JIT, and agile manufacturing.

**Notes** This course is crosslisted with ME 427. Credit at the 600-level requires additional work.

ME 629 - Computer Control of Machines and Processes  
Credits 3

Discrete control theory reduced to engineering practice through comprehensive study of discrete system modeling, system identification and digital controller design. Selected industrial processes and machines utilized as subjects on which computer control is to be implemented. Focuses on the time-domain analysis of the control theory and programming.

**Notes** This course is crosslisted with ME 429. Credit at the 600-level requires additional work.

ME 630 - Corrosion Engineering  
Credits 3

Examination of the fundamental processes of metallic corrosion from the thermodynamic and kinetic points of view. Specific types of corrosion and prevention strategies discussed. Materials selection, design features, and fabrication techniques of corrosion control covered.

**Notes** This course is crosslisted with ME 430. Credit at the 600-level requires additional work.

ME 634 - Noise Control  
Credits 3

Development and solution of one-dimensional wave equation for propagation of sound in air; one-dimensional plane and spherical sound waves; sound transmission phenomena; sound in enclosed spaces; sound propagation outdoors; and human responses to noise.

**Notes** This course is crosslisted with ME 434. Credit at the 600-level requires additional work.

ME 641 - Advanced Mechanical Engineering Design  
Credits 3

Use of advanced concepts in machine design.

**Notes** This course is crosslisted with ME 441. Credit at the 600-level requires additional work.

ME 642 - Advanced Mechanism Design  
Credits 3

Cam design, synthesis of mechanisms, spatial mechanisms.

**Notes** This course is crosslisted with ME 442. Credit at the 600-level requires additional work.

ME 643 - Design Techniques in Mechanical Engineering  
Credits 3

Computational techniques for use in mechanical engineering design. Emphasis on the use of existing commercial codes for the analysis and design of machine elements and for the study of heat transfer and fluid flow.

**Notes** This course is crosslisted with ME 443. Credit at the 600-level requires additional work.

ME 646 - Composite Materials  
Credits 3

Overview of matrix and fiber systems, processing techniques, anisotropic elasticity, unidirectional lamina, multidirectional laminate theory, failure theories, and design of composite structures.

**Notes** This course is crosslisted with ME 446. Credit at the 600-level requires additional work.

ME 650 - Physical Metallurgy  
Credits 3

This advanced undergraduate course is available for graduate credit.

ME 650L - Physical Metallurgy Laboratory

This advanced undergraduate course is available for graduate credit.

ME 653 - Mechanical Vibrations

Credits 3

Free and forced response of single-and-multi-degree-of-freedom, lumped parameter systems. Fourier series and Fourier and Laplace transforms.

Introduction to vibration of continuous systems and applications.

**Notes** This course is crosslisted with ME 453. Credit at the 600-level requires additional work.

ME 655 - Fundamentals of Nuclear Engineering

Credits 3

Fundamentals of nuclear reactor design and analysis of the fission process. Basic health physics, reactor shielding, and nuclear waste management.

Calculation of reactor dimensions for criticality.

Reactor kinetics and control.

**Notes** This course is crosslisted with ME 455. Credit at the 600-level requires additional work.

ME 656 - Radioactive Waste Management

Credits 3

This advanced undergraduate course is available for graduate credit.

ME 660 - High School Mentoring for Engineering Design

Credits 3

Students help high school teams design robots for the FIRST robotics competition. Weekly meetings discuss: mentoring, design, robotics, organizational skills, and teamwork. Must arrange transport to assigned local high school. Class begins with the international FIRST kick-off meeting usually scheduled for the first Saturday after New Year's Day.

**Notes** This course is crosslisted with ME 460. Credit at the 600-level requires additional work.

**Prerequisites** Instructor Consent

ME 662 - Vehicle Design Projects

Credits 3

Students design and build a vehicle for entry into a

national or regional collegiate competition such as Mini-Baja or Human Powered Vehicle. Design topics may include structural analysis, composite materials, aerodynamics, engine performance, occupant safety, drive train, suspension systems, project management, team building, technical report writing, and oral presentations.

**Notes** This course is crosslisted with ME 462. Credit at the 600-level requires additional work.

**Prerequisites** Instructor Consent

ME 670 - Experimental Mechanics of Materials

Credits 3

Failure theories for isotropic and composite materials, stress concentration, fracture mechanics, combined loading, photoelasticity, composites fabrication, mold making, mechanical testing, and microstructural analysis.

**Notes** This course is crosslisted with ME 470. Credit at the 600-level requires additional work.

ME 677 - Solar and Renewable Energy Utilization

Credits 3

Introduction to renewable energy applications.

Includes environmental motivations, historical perspectives, solar photovoltaic and thermal

applications, implications in building designs, wind energy, biomass, alternative fuels, geothermal power utilization, utility considerations, and political and economic factors.

**Formerly** EGG 650

ME 680 - Gas Dynamics I

Credits 3

Examines the basic concepts and theories associated with compressible fluid flow. Normal and oblique shocks, 1-D analysis, and method of characteristics discussed.

**Notes** This course is crosslisted with ME 480. Credit at the 600-level requires additional work.

ME 682 - Aerodynamics

Credits 3

Presents fluid flow concepts leading to the design of flow surfaces and passages to achieve optimum performance over the widest range of significant parameters. Topics include boundary layer theory, lift, airfoil analysis, and numerical methods for fluid mechanic analyses.



**Notes** This course is crosslisted with ME 482. Credit at the 600-level requires additional work.

ME 695 - Special Topics in Engineering  
Credits 1-4

Outlet for experimental and other topics which may be of current interest. Topics and credits to be announced. May have a laboratory. May be repeated once under different topic.

**Notes** This course is crosslisted with ME 495. Credit at the 600-level requires additional work.

ME 700 - Advanced Fluid Mechanics I  
Credits 3

Covers area of viscous laminar fluid flow. Presents concept of shear stresses and develops Navier-Stokes equation. Applications such as boundary layer flow studied as are some solutions of viscous fluid flow.

**Prerequisites** Graduate Standing or Instructor Consent

ME 701 - Advanced Fluid Mechanics II  
Credits 3

Potential flow theory with emphasis on complex representations, conformal mapping, Schwarz Christoffel transformations, airfoils. Compressible flow, free shear layers, shock waves, compressible boundary layers, two- and three- dimensional supersonic flows.

**Prerequisites** ME 700 or consent of instructor.

ME 702 - Computational Fluid Dynamics  
Credits 3

Application of numerical methods to solve highly nonlinear equations of motion and energy associated with fluid dynamics. Among other methods, finite difference and finite element methods discussed along with use of commercial software packages.

**Prerequisites** Graduate Standing or Instructor Consent

ME 703 - Continuum Mechanics  
Credits 3

Matrices and tensors, stress deformation and flow, compatibility conditions, constitutive equations, field equations and boundary conditions in fluids and solids, applications in solid and fluid mechanics.

**Formerly** (CEG 711)

**Prerequisites** Graduate Standing or Instructor Consent

ME 704 - Finite Element Applications in Mechanical Engineering

Credits 3

Finite Element Method used historically for structurally related problems. Advances in application and development of Finite Element Method particularly useful in fluid flow and heat transfer related problems. PC, workstation, and mainframe finite element computer codes used to assist students in solving fluid and heat transfer problems.

**Prerequisites** Graduate Standing or Instructor Consent

ME 705 - Conduction Heat Transfer

Credits 3

Designed to solve more advanced heat transfer problems by conduction. Analytical and numerical techniques in heat conduction covered. Review of elementary problems presented. Advanced analytical methods using Bessel functions, separation of variables and Laplace transforms, among others. Solutions using finite differences covered.

**Prerequisites** ME 314 and ME 445 or equivalent or consent of instructor.

ME 706 - Convective Heat Transfer

Credits 3

Conservation principles, fluid stresses and flux laws, boundary layer equation, laminar and turbulent heat flow inside tubes. Heat transfer in laminar and turbulent boundary layers. Influence of temperature dependent fluid properties and free-convection boundary layers.

**Prerequisites** Graduate Standing or Instructor Consent

ME 707 - Radiation Heat Transfer

Credits 3

Advanced engineering analysis of thermal radiation heat transfer. Spectral and gray-body analysis. Exchange of radiation between surfaces and through absorbing, emitting, and scattering media. Radiation combined with conduction and convection.

**Prerequisites** Graduate Standing or Instructor Consent

ME 708 - Convective Boiling and Condensation

Credits 3

Basic models, empirical treatments of two-phase

flow. Introduction to convective boiling, subcooled boiling, void fraction and pressure drop in subcooled boiling, saturated boiling heat transfer, critical heat flux, condensation.

**Prerequisites** Graduate Standing or Instructor Consent

ME 710 - Transport Phenomena in Bioengineering  
Credits 3

Transport phenomena in bioengineering at molecular, cellular and tissue levels. Topics include blood flow in large and small vessels, gas exchange in lung, biomass and heat transfer in microcirculation, ion transport across cell membrane, cell migration, renal transport, controlled drug delivery and transport in tumors.

**Prerequisites** Graduate Standing or Instructor Consent

ME 711 - Advanced Thermodynamics  
Credits 3

Advanced concepts and laws of classical equilibrium thermodynamics as applied to engineering problems. Introduction to statistical thermodynamics.

**Prerequisites** Graduate Standing or Instructor Consent

ME 714 - Computational Aspects of Solar Energy  
Credits 3

Theory and practice in the design of solar energy components and systems. Included are collectors, concentrators, receivers, storage, and power systems. Emphasis is on the simulation of transient systems.

**Prerequisites** Graduate Standing or Instructor Consent

ME 717 - Transport Phenomena  
Credits 3

Momentum, energy, and mass transport at molecular motion, microscopic levels. Momentum flux tensors, heat flux vectors, and mass flux vectors. Transport in laminar or turbulent flow. Transport in isothermal or nonisothermal systems. Transport in single or multicomponent systems. Interface transport and chemical reaction.

**Prerequisites** Graduate Standing or Instructor Consent

ME 720 - Acoustics I  
Credits 3

Introduction to wave motion and general solution techniques associated with wave equation; propagation of waves in solid media; one-dimensional acoustic waves, acoustic transmission phenomena, and propagation of sound outdoors.

**Prerequisites** Graduate Standing or Instructor Consent

ME 721 - Acoustics II  
Credits 3

Three-dimensional sound waves; experimental measurement techniques associated with acoustics; acoustic filter theory; other advanced topics in acoustics.

**Prerequisites** ME 720

ME 725 - Vibrations I  
Credits 3

Vibrations of systems with one-degree-of-freedom and more than one-degree-of-freedom. Methods for finding natural frequencies, discrete systems and continuous systems.

**Prerequisites** Graduate Standing or Instructor Consent

ME 726 - Vibrations II  
Credits 3

Virtual work, Hamilton's principles, Lagrange's equation, influence coefficients, Green's function as applied to advanced vibration problems; vibration of continuous systems; modal analysis.

**Prerequisites** Graduate standing and ME 725.

ME 727 - Engineering Optimization  
Credits 3

Introduction to optimization, univariate functions, multivariate functions, constrained optimality criteria, penalty method, constrained direct search, engineering case studies, linear programming.

**Prerequisites** Graduate Standing or Instructor Consent

ME 729 - Advanced Robotics  
Credits 3

In-depth study of advanced automation concepts and robotic manipulators. Topics including 3-D kinematics, trajectory generation, compliance analysis, dynamic control of robotics along with concept of assembly operations and machine vision.

**Prerequisites** Graduate Standing or Instructor Consent

ME 732 - Mechanical Metallurgy

Credits 3

Behavior and response of metals to applied forces.

Five areas covered: mechanical fundamentals, metallurgical fundamentals, materials testing, plastic forming of metals, and modes of failure.

**Prerequisites** Graduate Standing or Instructor Consent

ME 734 - Fracture of Engineering Materials

Credits 3

Stress-strain relationships during elastic and plastic deformation, linear elastic and elastic-plastic fracture mechanics, Griffith's theory, stress analyses of cracks, plastic zone size, fracture toughness measurements, ductile-to-brittle transition, fatigue failure mechanisms, environment-assisted cracking and relevant test methods, metallographic evaluations using state-of-the-art techniques.

**Prerequisites** Graduate Standing or Instructor Consent

ME 736 - Diffusion in Metals

Credits 3

Covers thermodynamics and phase diagrams, interstitial and substitutional diffusion, diffusion in binary and ternary alloys, solidification, and diffusional and diffusionless transformation in solids.

**Prerequisites** ME 301 and 302 or equivalent.

ME 740 - Advanced Dynamics

Credits 3

Applications of Lagrangian and Newtonian mechanics to mechanical systems. Includes kinematics, moving reference frames, rigid body dynamics, oscillations and mode forms, and gyroscopic effects.

**Prerequisites** Graduate Standing or Instructor Consent

ME 741 - Energy and Variational Methods in Applied Mechanics I

Credits 3

Governing equations of mechanics, energy and variational principles, variational methods of approximation, theory of elasticity, material laws, work and energy, beam theory, finite element

method, structural systems.

**Prerequisites** Graduate Standing or Instructor Consent

ME 742 - Energy and Variational Methods in Applied Mechanics II

Credits 3

Theoretical principles for solving solid mechanics problems. Direct continuation of ME 741. Topics covered include: computational solution methods to governing equations, free vibration and forced response of elastic systems, stability analysis, solution methods to governing equations, free vibration and forced response of elastic systems, stability analysis, solution methods for beams, plates, and structural systems.

**Prerequisites** ME 741

ME 743 - Applied Dynamic Finite Element Analysis

Credits 3

Overview of the development of dynamic computational analysis, software description, modeling techniques, symmetry and boundary conditions, initial conditions, contact algorithms, wave propagation, material behavior, implicit analysis, damping, mass scaling, mesh adaptation, element selection, hourglassing, postprocessing, output control, restarts, parallel processing, Eulerian and ALE methods.

**Prerequisites** Graduate standing in engineering or consent of instructor.

ME 746 - Experimental Design and Analysis of Digital Process Control Systems

Credits 3

Applications, design, and experimental practice of mechanical linear and discrete systems: hydraulic, pneumatic, elastic multibody systems, centripetal and coriolis effects, automatic model and code generation. Discrete nonlinear control systems modeling, simulation, design using state space methods. Aspects of system identification, robust and optimal control.

**Same as** (EGG 746)

**Prerequisites** Graduate Standing or Instructor Consent

ME 747 - Orthopedic Biomechanics - Lower Extremities and Spine

Credits 3

Biomechanics of the lower extremities and spine; engineering properties and physiology of bone, cartilage, and tendon; analysis of gait; effects of orthopedic impairment and injury; design and surgical implantation of prosthetic joints and fracture fixation devices; engineering of tissue regeneration and replacement.

**Same as** (EGG 747)

**Prerequisites** Graduate standing in engineering or kinesiology or consent of instructor.

ME 748 - Prosthetic Systems Engineering  
Credits 3

Engineering design of prosthetic feet, ankles, knees, and prehension devices; materials and manufacturing; the biomechanics of movement using a prosthesis; residual limb morphology and surgical enhancements; socket design and tissue response; myoelectric devices; microprocessor control; psychophysical and motor control considerations; aspects of clinical science. Emphasis on R&D needs.

**Same as** (EGG 748)

**Prerequisites** Graduate standing in engineering or kinesiology or consent of instructor.

ME 750 - Analysis of Human Movement  
Credits 3

Analysis of the kinematics and kinetics of human movement in two and three dimensions with emphasis on methods used in motion capture, including joint and segment position; acceleration, velocity, force and torque; work and power; and inverse solution methods.

**Same as** (EGG 750)

**Prerequisites** Graduate standing in engineering or kinesiology or consent of instructor.

ME 752 - Advanced Air Pollution Control  
Credits 3

Fundamental chemical and physical principles of generation and control of air pollutants, and applications to pollution control equipment. Pollutant and particle formation during combustion. Gas adsorption and absorption fundamentals and tower/column design. Pollution control strategies.

**Prerequisites** Graduate Standing or Instructor Consent

ME 754 - Introduction to Nuclear Criticality Safety  
Credits 3

Review of criticality accidents, overview of the physics of criticality, factors that affect reactivity, experiments and the development of subcritical limits, standards and regulations, hand calculation techniques, engineering and evaluations for criticality safe processes and facilities.

**Prerequisites** ME 455, ME 655 or equivalent or consent of instructor.

ME 755 - Nuclear Criticality Safety Engineering  
Credits 3

Nuclear engineering for criticality safe processes and facilities: in-depth physics of criticality, hand calculation techniques, Monte Carlo applications, experimental development of subcritical limits; nuclear criticality accidents, anomalies and case studies; nuclear data/benchmarking, standards and regulations, etc. Practical engineering examples/case studies and the preparation of a nuclear criticality safety evaluation.

**Prerequisites** ME 754 or equivalent or consent of instructor.

ME 756 - Monte Carlo Methods in Nuclear Engineering  
Credits 3

Theory and application of the Monte Carlo method for neutron transport calculations from introductory concepts to advanced simulations of criticality in fissile materials. Computer applications in nuclear engineering; verification and validation (V&V), nuclear data files, examples of Monte Carlo calculations, case studies and applied problems.

**Prerequisites** ME 455, ME 655 or equivalent or consent of instructor.

ME 757 - Radiation Monitoring and Safeguards Systems  
Credits 3

Advanced topics in radiation measurement science, remote sensing, nondestructive assay techniques, and nuclear material safeguards. Use of radiation detection systems in process monitoring and safeguards, and in security applications.

**Prerequisites** ME 4585/655, or consent of instructor.

ME 758 - Accelerator Applications in Nuclear Engineering  
Credits 3

Fundamental concepts of particle accelerators. Radiation beams and targets. Advanced topics in accelerator applications in engineering, security, isotope production, transmutation, nondestructive assay, material analysis, biology and medicine.  
**Prerequisites** ME 455/655, or consent of instructor.

ME 759 - Mass Transfer in Environmental Systems  
Credits 3  
Fundamentals of mass transfer by diffusion and advection. Solutions to steady-state and transient problems in several dimensions.  
**Notes** Applications to natural and engineered systems.  
**Prerequisites** Graduate Standing or Instructor Consent

ME 760 - Waste Management And The Nuclear Fuel Cycle  
Credits 3  
Introduction to the nuclear fuel cycle and management of nuclear waste. Introduction to repository design and performance assessment. Overview of waste form performance, contaminant transport, and risk assessment as applied to nuclear waste management.  
**Prerequisites** HPS 701 or consent of instructor.

ME 762 - Nuclear Power Engineering  
Credits 3  
Analysis of the conversion of energy generated by fission, fusion, or radioactive decay into electrical power and propulsion. Theory of reactor heat generation and removal and new reactor concepts. Review of thermodynamic cycles used in pressurized and boiling water reactors, gas-cooled and liquid metal reactors.  
**Prerequisites** ME 311 , ME 314, ME 455 or ME 655 or equivalent

ME 763 - Nuclear Reactor Analysis  
Credits 3  
Development of the neutron diffusion equation with application to the design of steady state nuclear reactors. Derivation of critical core dimensions for single energy and multienergy neutron groups. Determination of group constants for thermal and fast neutrons. Unsteady reactor dynamics and criticality control. Introduction to Monte Carlo techniques.  
**Prerequisites** ME 455 or ME 655

ME 765 - Neutron Detection and Production  
Credits 3  
Content includes passive and active neutron detection using He3 and BF3 ionization/proportional tubes, liquid and plastic scintillators, fission chambers, and activation foils. The course includes laboratory exercises. Pulsed and continuous sources will be covered including fission reactors, accelerator production through fusion, spallation, photonuclear effects, and  $[\alpha, n]$  reactions.  
**Prerequisites** ME 455/655 or equivalent.

ME 774 - Introduction to Theory of Elasticity and Plasticity I  
Credits 3  
Introduction to theoretical and applied elasticity and plasticity theory-solutions to engineering problems in structural mechanics and geotechnical engineering. Response of isotropic, orthotropic and layered media to applied stresses and strains.  
**Prerequisites** Graduate Standing or Instructor Consent

ME 777 - Application of High-Performance Computing Methods in Science and Engineering  
Credits 3  
Application of high performance computing systems to science and engineering, models for numerically intensive problem solving, high performance numerical algorithms, FORTRAN 90 and high-performance FORTRAN.  
**Same as** (MAT 777)  
**Prerequisites** Knowledge of UNIX, FORTRAN, and previous course on numerical methods. Graduate standing.

ME 791 - Independent Study in Mechanical Engineering  
Credits 1 – 3  
Independent study of a selected mechanical engineering topic.  
**Notes** May be repeated to a maximum of three credits.  
**Prerequisites** Graduate standing in mechanical engineering and consent of instructor.

ME 795 - Advanced Topics in Mechanical Engineering  
Credits 1 – 6  
Outlet for experimental and other advanced topics

which may be of current interest.

**Notes** Topics and credits to be announced. May have a laboratory. May be repeated to a maximum of six credits.

ME 796 - Design Project in Mechanical Engineering  
Credits 1 – 3

Synthesis course involving students in the design process from analysis and proposal to solution.

**Notes** May be repeated to a maximum of three credits.

**Prerequisites** Graduate standing in mechanical engineering and consent of instructor.

ME 797 - Thesis in Mechanical Engineering  
Credits 3 – 6

**Notes** May be repeated but only six credits will be applied to the program.

**Grading** S/F grading only.

**Prerequisites** Graduate standing in mechanical engineering.

ME 799 - Dissertation  
Credits 1 – 6

Research analysis and writing towards completion of dissertation and subsequent defense.

**Notes** May be repeated to a maximum of 18 credits allowed toward the degree.

**Grading** S/F grading only.

**Prerequisites** Graduate standing in Ph.D. program and consent of advisor.

## College of Fine Arts

The graduate programs in the College of Fine Arts are considered among the very best in the country. Indeed, several programs are considered the "best!" The deserved reputations of these discrete programs are based largely on the excellent graduate faculty, which consists of highly trained artists and educators of national stature. Graduate programs include: the M.F.A. degree in visual arts; M.M. degree in music with programs in applied music, music education, and theory/composition and the Doctor of Music Arts (D.M.A.); M.F.A. in design/theatre technology, music theatre performance, writing for dramatic media, and playwriting; an M.A. in theatre research; and, a Master of Architecture degree. We have designed all graduate programs, at the professional level, to prepare students to compete aggressively in their chosen fields. Thanks to an excellent artist-in-residence program, our students are exposed to, and work with, professionals who regularly visit the college. Certain of the programs have developed relationships with the best professional outlets in their areas, allowing students to work and interact with professionals prior to graduation. All graduate programs are accredited by their individual accrediting agencies.

The College of Fine Arts is committed to excellence in the classroom in conjunction with practical experience, which hones the skills and talents of its students. An excellent faculty, excellent facilities, excellent connections to the professions, and excellent students all contribute to a fast growing college that can enhance careers and help dreams become realities.

Jeffrey Koep, Ph.D., Dean, College of Fine Arts  
Dean Gronemeier, D.M.A., J.D., College of Fine Arts

## School of Architecture

The School of Architecture offers an NAAB accredited Master of Architecture professional degree (M. Arch). The M. Arch. program has the goals of developing students' abilities to conceive and accurately represent environmentally sound and aesthetically fitting spaces at different scales and to provide a basis for understanding the consequences that these spaces have for their inhabitants, for society, and for the environment.

The School of Architecture capitalizes on the unique conditions provided by the city of Las Vegas and Southern Nevada. The School of Architecture current research emphasis areas are: 1. Sustainable desert climate architecture; 2. Solar and energy efficient building design; 3. Ecological land use planning; 4. Education and Research Facilities Design; 5. Environmental, historic, and socio-cultural contexts ranging from the city to the building site; and 6. Hospitality Designs.

### Accreditation

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree. The UNLV School of Architecture offers the following NAAB-accredited degree programs:

M. Arch. (pre-professional degree + 48 credits)  
M. Arch. (non-pre-professional degree + 96 credits)

The next NAAB accreditation visit for both programs: 2017.

*David Baird, Director*

*Randall Stout, Graduate Coordinator*

## Architecture Faculty

### Director

**Baird, David** - *Full Graduate Faculty*  
Professor; B.S., University of Illinois; B.Arch., University of Arizona; M.S., M.Arch., University of Arizona. *Rebel since 2009.*

### Graduate Coordinator

**Stout, Randall** - *Full Graduate Faculty*  
Professor; B. Arch. University of Tennessee ; M. Arch Rice University. *Rebel since 2011.*

### Graduate Faculty

**Fernandez-Gonzalez, Alfredo** - *Full Graduate Faculty*  
Associate Professor; B.Arch., Universidad La Salle; Specialist, National Autonomous University of Mexico; M.Arch, University of Oregon. *Rebel since 2003.*

**Kemner, Kevin** - *Full Graduate Faculty*  
Assistant Director; B.S., The Ohio State University; M.Arch., The Ohio State University. *Rebel since 2007.*

**Lawrence, Attila** - *Full Graduate Faculty*  
Professor; B.L.A., Philadelphia College of Art; M.A., Pennsylvania State University. *Rebel since 1988.*

**McCown, Kenneth** - *Full Graduate Faculty*  
Associate Professor; Director Downtown Design Center;

**Nowak, Glenn** - *Full Graduate Faculty*  
Assistant Professor; B.S. & B. Arch. Ball State University; M. Arch II Cornell University. *Rebel since 2007.*

**Oakley, Deborah** - *Full Graduate Faculty*  
Associate Professor; B.S. Civil Engineering, Worcester Polytechnic Institute, Worcester, MA, with distinction; M.Arch, Virginia Polytechnic Insititute and State University, Blacksburg, VA. *Rebel since 2009.*

**Ortega, Daniel** - *Full Graduate Faculty*  
Associate Professor; B.L.A., University of Nevada,



Las Vegas; M.L.A., Rhode Island School of Design. *Rebel since 2000.*

**Vera, Maria** - Full Graduate Faculty  
Assistant Professor; BA, New York Institute of Technology, MArch, Universitat Politecnica de Catalunya-Metropolis Program, *Rebel since 2014*

**Vermillion, Josh**-Full Graduate Faculty  
Assistant Professor; *Rebel since 2012.*

**Weber, Eric** - Full Graduate Faculty  
Assistant Professor; B.S. Arizona State University; M. Arch, Arizona State University. *Rebel since 2011.*

**White, Janet R.** - Full Graduate Faculty  
Assistant Professor; A.B. Bryn Mawr College; M. Arch Columbia University PhD. Cornell University. *Rebel since 1999.*

**Yeshayahu, Shai**-Full Graduate Faculty  
Assistant Professor; BS Architecture Technology, New York Institute of Technology; Diploma, Art History, Fundacion Ortega Y Gasset; M.Arch, Ohio State University. *Rebel since 2014.*

## Graduate Certificate in Hospitality Design

### Plan Description

Hospitality Design Leaders from Las Vegas based architecture firms (responsible for designing most of the resorts on the Las Vegas Strip and countless other national/international projects) are collaborating with UNLV School of Architecture (SoA) to offer a graduate concentration in Hospitality Design/Entertainment Architecture. This concentration allows students to engage and learn from industry leaders and investigate the issues that shape this dynamic international design industry. For qualified applicants including international students, practitioners in disciplines related to hospitality design, and students already holding an accredited architecture degree, the SoA would like to announce the HD Certificate.

The HD Certificate program is an intensive one year course of study. To earn the certificate, students must engage in design/research under the guidance of faculty with diverse expertise and professionals with several years of experience, successfully defend their work before a panel of design critics, and demonstrate their ability to generate original material relevant to the profession and/or academia by completing a publishable work.

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Hospitality Design (HD) Certificate applicants must meet the following minimum qualifications for consideration of admission to the HD Certificate program: an undergraduate degree, a strong design or research background, and professional or internship experience in the hospitality industry.

Applicants must submit a portfolio of original work (specify exact role on work generated in collaborative settings) and a one page letter of intent that describes their design and/or research agenda to be developed. Each year, the HD Concentration's coordinator must receive student applications to the HD Certificate Program by July 1 in order to conduct the admissions

process and make preparations for design-research proposals.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 21

Course Requirements

#### **Required Courses – Credits: 9**

AAE 775 - Tourist Facility Design and Development

AAE 789 - Architecture Research Studio

#### **Elective Course – Credits: 3**

Complete 3 credits of advisor-approved elective coursework.

#### **Hospitality Elective Course – Credits: 3**

Complete 3 credits from the following list of courses, or another advisor-approved course:

HOA 739 - Psychology of Hospitality Marketing

HOA 797 - Philosophy of Science in Hospitality Research

HOA 574 - Seminar in Hotel Research

SLS 718 - Programming for Sport and Leisure Service Organizations

#### **Project Design Course – Credits: 6**

AAE 790 - Professional Project Design

Certificate Requirements

1. Completion of a minimum of 21 credit hours with a minimum GPA of 3.00.
2. Ideally, students take one elective in the fall semester and one elective in the spring while they are engaged in independent design

research projects focusing on hospitality design/entertainment architecture issues.

3. The Project Design course will be conducted as a design research project guided by the Hospitality Design Concentration Coordinator. The culminating experience must include successful defense of design/research presentation to the student's critics and the submission of the work (or component thereof) to a refereed conference, journal, or equivalent.

### **Plan Certificate Completion Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.
2. The student must successfully complete and defend his/her final project.

## Master of Architecture

### Plan Description

The School of Architecture offers an NAAB accredited Master of Architecture professional degree (M. Arch). The M. Arch. program has the goals of developing students' abilities to conceive and accurately represent environmentally sound and aesthetically fitting spaces at different scales and to provide a basis for understanding the consequences that these spaces have for their inhabitants, for society, and for the environment.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Each Master of Architecture program applicant must hold a baccalaureate or graduate degree from a regionally accredited college or international equivalent. Applicants must have a cumulative undergraduate GPA of 3.00 or higher. Applicants are also required to submit a design portfolio for review, a statement of intent, two letters of reference, and GRE scores of 146 or higher in the verbal section and 148 or higher in the quantitative section. The combined GRE score of these two sections may be no less than 294. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

The Master of Architecture program offers prospective students two paths:

1. For applicants holding a Bachelor of Science in Architecture (BS Arch), or its equivalent, the program offers a two-year degree path in the 4+2 program.
2. For applicants with academic backgrounds outside of architecture or holding a Bachelor of Arts in Architecture, the program offers

an alternative path through the 3 year plus degree program. The duration of the 3+ path varies based on an individual student's academic background and preparation. Each student applying for admission will be individually assessed and provided a course of study.

Interested applicants can find detailed information about the Master of Architecture program directly from the School of Architecture's web site.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: 4+2 Hospitality & Entertainment Design Track**

Total Credits Required: 48

Course Requirements

#### **Required Courses – Credits: 30**

AAE 660 - Issues in Contemporary Urbanism  
AAE 756 - Design Practice Management  
AAE 770 - Research Methods in Environmental Design  
AAE 771L - Architectural Design V  
AAE 772L - Architectural Design VI  
AAE 789 - Architecture Research Studio  
ABS 741 - Integrated Building Systems

#### **Elective Courses – Credits: 12**

Complete 12 credits of advisor-approved course work.

#### **Professional Project – Credits: 6**

AAE 790 - Professional Project Design

Degree Requirements

1. Students are required to maintain a minimum GPA of 3.00 on a 4.00 point scale. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise his/her GPA to 3.00 or higher. Failure to meet the requirements of academic probation may result in separation.
2. Only those courses in which a student receives a grade of B- or better may be used for graduate credit. Students must comply with all UNLV and Graduate College policies.
3. Students are required to declare a subplan by the end of their first year.
4. In order to assess the student's progress in the program, the School of Architecture Graduate Committee will meet once a year with the student to determine whether or not he/she may advance to the next graduate year.
5. The student must successfully complete a Professional Project developed as part of the Professional Project Design course. The Professional Project should address a significant architectural problem and demonstrate a comprehensive design solution. The requirements and evaluation of this project will be determined by the instructor of the course.
6. The student is required to present his/her Professional Project to the School of Architecture Graduate Committee.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete a Professional Project.

#### **Subplan 2 Requirements: 4+2 Education Facilities Research & Design Track**

Total Credits Required: 48

Course Requirements

#### **Required Courses – Credits: 30**

AAE 660 - Issues in Contemporary Urbanism  
 AAE 756 - Design Practice Management  
 AAE 770 - Research Methods in Environmental Design  
 AAE 771L - Architectural Design V  
 AAE 772L - Architectural Design VI  
 AAE 789 - Architecture Research Studio  
 ABS 741 - Integrated Building Systems

#### **Elective Courses – Credits: 12**

Complete 12 credits from the following list of courses or other advisor-approved courses:

CIG 603 - Urban Education  
 CIE 683 - Elementary Classroom Management  
 CIG 761 - Theoretical Foundations of Education  
 CIG 764 - Models of Teaching  
 CIG 771 - Comparative Studies in Learning, Teaching, and Curriculum  
 CIG 782 - School Climate  
 CIS 686 - Curriculum Development Secondary Education  
 CIT 607 - Technology as Educational Mindtools  
 CIT 772 - Technology in Teacher Education  
 ESP 701 - Introduction to Special Education and Legal Issues  
 ESP 715 - Communication Programming for Persons with Severe Disabilities  
 ESP 774 - Seminar in Curriculum Development in Early Childhood Special Education  
 ESP 775 - Strategies for Early Childhood Special Education  
 ESP 777 - Assistive Technology Strategies for Young Children  
 ESP 786 - Legal and Political Issues in Special Education Programming  
 ESP 752 - Consultative Techniques in Special Education  
 ESP 771 - Perspectives on Early Childhood Special Education  
 ESP 764 - Characteristics & Inclusive Strategies for Students with LD, ED, & MID

#### **Professional Project – Credits: 6**

AAE 790 - Professional Project Design

Degree Requirements

1. Students are required to maintain a minimum GPA of 3.00 on a 4.00 point scale. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise his/her GPA to 3.00 or higher. Failure to meet the requirements of academic probation may result in separation.
2. Only those courses in which a student receives a grade of B- or better may be used for graduate credit. Students must comply with all UNLV and Graduate College policies.
3. Students are required to declare a subplan by the end of their first year.
4. In order to assess the student's progress in the program, the School of Architecture Graduate Committee will meet once a year with the student to determine whether or not he/she may advance to the next graduate year.
5. The student must successfully complete a Professional Project developed as part of the Professional Project Design course. The Professional Project should address a significant architectural problem and demonstrate a comprehensive design solution. The requirements and evaluation of this project will be determined by the instructor of the course.
6. The student is required to present his/her Professional Project to the School of Architecture Graduate Committee.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete a Professional Project.

#### **Subplan 3 Requirements: 4+2 Building Systems & Sustainability Track**

Total Credits Required: 48

#### Course Requirements

#### **Required Courses – Credits: 21**

AAE 660 - Issues in Contemporary Urbanism  
 AAE 756 - Design Practice Management  
 AAE 770 - Research Methods in Environmental Design  
 AAE 771L - Architectural Design V  
 AAE 772L - Architectural Design VI  
 ABS 741 - Integrated Building Systems

#### **Elective Courses – Credits: 21**

Complete 21 credits of advisor-approved elective coursework.

#### **Thesis – Credits: 6**

AAE 791 - Thesis Writing

#### Degree Requirements

1. Students are required to maintain a minimum GPA of 3.00 on a 4.00 point scale. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise his/her GPA to 3.00 or higher. Failure to meet the requirements of academic probation may result in separation.
2. Only those courses in which a student receives a grade of B- or better may be used for graduate credit. Students must comply with all UNLV and Graduate College policies.
3. Students are required to declare a subplan by the end of their first year.
4. In order to assess the student's progress in the program, the School of Architecture Graduate Committee will meet once a year with the student to determine whether or not he/she may advance to the next graduate year.
5. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion.

Please see Graduate College policy for committee appointment guidelines.

6. The master's thesis will have to focus on an area of concentration approved by the student's Thesis Advisory Committee and supported by elective course work related to the selected concentration subject. The student should register for thesis credits during the last year in the program.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit a bound copy of his/her thesis to the student's Thesis Advisory Committee chair and to the Architecture Studies Library. The school reserves the right to retain any or all student projects for the program's future use and exhibition.
4. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 4 Requirements: 3+ Hospitality & Entertainment Design Track**

Total Credits Required: 96

#### Course Requirements

#### **Preparatory Architecture Courses – Credits: 27**

AAE 555 - The Enlightenment to Mid-20th Century: Arch His and Theory  
AAE 651 - Multidiscipline Theory and Analysis in Architecture  
AAE 711L - Graduate Design I: Design and Communication  
AAE 712L - Graduate Design II: Fundamentals

AAE 713L - Graduate Design III  
AAE 714L - Graduate Design IV

#### **Preparatory Building Science Courses – Credits: 18**

ABS 521 - Construction Technologies I  
ABS 522 - Construction Technologies II  
ABS 531 - Environmental Control Systems I  
ABS 532 - Environmental Control Systems II  
ABS 541 - Structures for Architects I  
ABS 640 - Structures For Architects II

#### **Preparatory Concentration Elective Course – Credits: 3**

Complete 3 credits of an advisor-approved concentration elective course.

#### **Preparatory Clinical Internship – Credits: 0**

AAD 600 - Clinical Internship

#### **Required Courses – Credits: 30**

AAE 660 - Issues in Contemporary Urbanism  
AAE 756 - Design Practice Management  
AAE 770 - Research Methods in Environmental Design  
AAE 771L - Architectural Design V  
AAE 772L - Architectural Design VI  
AAE 789 - Architecture Research Studio  
ABS 741 - Integrated Building Systems

#### **Elective Courses – Credits: 12**

Complete 12 credits of advisor-approved course work.

#### **Professional Project – Credits: 6**

AAE 790 - Professional Project Design

#### Degree Requirements

1. Students are required to complete preparatory work before proceeding to the final four semesters of the program. The duration and total credits required for the program vary based on an individual student's academic background and preparation. Each student will be

individually assessed to determine these preparatory requirements.

2. Students are required to maintain a minimum GPA of 3.00 on a 4.00 point scale. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise his/her GPA to 3.00 or higher. Failure to meet the requirements of academic probation may result in separation.
3. Only those courses in which a student receives a grade of B- or better may be used for graduate credit. Students must comply with all UNLV and Graduate College policies.
4. Students are required to declare a subplan by the end of their first year.
5. In order to assess the student's progress in the program, the School of Architecture Graduate Committee will meet once a year with the student to determine whether or not he/she may advance to the next graduate year.
6. The student must successfully complete a Professional Project developed as part of the Professional Project Design course. The Professional Project should address a significant architectural problem and demonstrate a comprehensive design solution. The requirements and evaluation of this project will be determined by the instructor of the course.
7. The student is required to present his/her Professional Project to the School of Architecture Graduate Committee.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete a Professional Project.

#### **Subplan 5 Requirements: 3+ Education Facilities Research & Design Track**

Total Credits Required: 96

#### Course Requirements

#### **Preparatory Courses – Credits: 27**

AAE 555 - The Enlightenment to Mid-20th Century: Arch His and Theory  
AAE 651 - Multidiscipline Theory and Analysis in Architecture  
AAE 711L - Graduate Design I: Design and Communication  
AAE 712L - Graduate Design II: Fundamentals  
AAE 713L - Graduate Design III  
AAE 714L - Graduate Design IV

#### **Preparatory Building Science Courses – Credits: 18**

ABS 521 - Construction Technologies I  
ABS 522 - Construction Technologies II  
ABS 531 - Environmental Control Systems I  
ABS 532 - Environmental Control Systems II  
ABS 541 - Structures for Architects I  
ABS 640 - Structures For Architects II

#### **Preparatory Concentration Elective Course – Credits: 3**

Complete 3 credits of an advisor-approved concentration elective course.

#### **Preparatory Clinical Internship – Credits: 0**

AAD 600 - Clinical Internship

#### **Required Courses – Credits: 30**

AAE 660 - Issues in Contemporary Urbanism  
AAE 756 - Design Practice Management  
AAE 770 - Research Methods in Environmental Design  
AAE 771L - Architectural Design V  
AAE 772L - Architectural Design VI  
AAE 789 - Architecture Research Studio  
ABS 741 - Integrated Building Systems

#### **Elective Courses – Credits: 12**

Complete 12 credits from the following list of courses or other advisor-approved courses:

CIG 603 - Urban Education  
CIE 683 - Elementary Classroom Management  
CIG 761 - Theoretical Foundations of Education  
CIG 764 - Models of Teaching

CIG 771 - Comparative Studies in Learning, Teaching, and Curriculum  
 CIG 782 - School Climate  
 CIS 686 - Curriculum Development Secondary Education  
 CIT 607 - Technology as Educational Mindtools  
 CIT 772 - Technology in Teacher Education  
 ESP 701 - Introduction to Special Education and Legal Issues  
 ESP 715 - Communication Programming for Persons with Severe Disabilities  
 ESP 774 - Seminar in Curriculum Development in Early Childhood Special Education  
 ESP 775 - Strategies for Early Childhood Special Education  
 ESP 777 - Assistive Technology Strategies for Young Children  
 ESP 786 - Legal and Political Issues in Special Education Programming  
 ESP 752 - Consultative Techniques in Special Education  
 ESP 771 - Perspectives on Early Childhood Special Education  
 ESP 764 - Characteristics & Inclusive Strategies for Students with LD, ED, & MID

**Professional Project – Credits: 6**

AAE 790 - Professional Project Design

Degree Requirements

1. Students are required to complete preparatory work before proceeding to the final four semesters of the program. The duration and total credits required for the program vary based on an individual student's academic background and preparation. Each student will be individually assessed to determine these preparatory requirements.
2. Students are required to maintain a minimum GPA of 3.00 on a 4.00 point scale. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise his/her GPA to 3.00 or higher. Failure to meet the requirements of academic probation may result in separation.
3. Only those courses in which a student receives a grade of B- or better may be used

for graduate credit. Students must comply with all UNLV and Graduate College policies.

4. Students are required to declare a subplan by the end of their first year.
5. In order to assess the student's progress in the program, the School of Architecture Graduate Committee will meet once a year with the student to determine whether or not he/she may advance to the next graduate year.
6. The student must successfully complete a Professional Project developed as part of the Professional Project Design course. The Professional Project should address a significant architectural problem and demonstrate a comprehensive design solution. The requirements and evaluation of this project will be determined by the instructor of the course.
7. The student is required to present his/her Professional Project to the School of Architecture Graduate Committee.

Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete a Professional Project.

**Subplan 6 Requirements: 3+ Building Systems & Sustainability Track**

Total Credits Required: 96

Course Requirements

**Preparatory Courses – Credits: 27**

AAE 555 - The Enlightenment to Mid-20th Century: Arch His and Theory  
 AAE 651 - Multidiscipline Theory and Analysis in Architecture  
 AAE 711L - Graduate Design I: Design and Communication  
 AAE 712L - Graduate Design II: Fundamentals



AAE 713L - Graduate Design III  
AAE 714L - Graduate Design IV

**Preparatory Building Science Courses – Credits: 18**

ABS 521 - Construction Technologies I  
ABS 522 - Construction Technologies II  
ABS 531 - Environmental Control Systems I  
ABS 532 - Environmental Control Systems II  
ABS 541 - Structures for Architects I  
ABS 640 - Structures For Architects II

**Preparatory Concentration Elective Course – Credits: 3**

Complete 3 credits of an advisor-approved concentration elective course.

**Preparatory Clinical Internship – Credits: 0**

AAD 600 - Clinical Internship

**Required Courses – Credits: 21**

AAE 660 - Issues in Contemporary Urbanism  
AAE 756 - Design Practice Management  
AAE 770 - Research Methods in Environmental Design  
AAE 771L - Architectural Design V  
AAE 772L - Architectural Design VI  
ABS 741 - Integrated Building Systems

**Elective Courses – Credits: 24**

Complete 24 credits of advisor-approved elective coursework.

**Thesis – Credits: 6**

AAE 791 - Thesis Writing

**Degree Requirements**

1. Students are required to complete preparatory work before proceeding to the final four semesters of the program. The duration and total credits required for the program vary based on an individual student's academic background and preparation. Each student will be

individually assessed to determine these preparatory requirements.

2. Students are required to maintain a minimum GPA of 3.00 on a 4.00 point scale. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise his/her GPA to 3.00 or higher. Failure to meet the requirements of academic probation may result in separation.
3. Only those courses in which a student receives a grade of B- or better may be used for graduate credit. Students must comply with all UNLV and Graduate College policies.
4. Students are required to declare a subplan by the end of their first year.
5. In order to assess the student's progress in the program, the School of Architecture Graduate Committee will meet once a year with the student to determine whether or not he/she may advance to the next graduate year.
6. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
7. The master's thesis will have to focus on an area of concentration approved by the student's Thesis Advisory Committee and supported by elective course work related to the selected concentration subject. The student should register for thesis credits during the last year in the program.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.

3. The student must submit a bound copy of his/her thesis to the student's Thesis Advisory Committee chair and to the Architecture Studies Library. The school reserves the right to retain any or all student projects for the program's future use and exhibition.
4. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

### **School of Architecture Courses**

**AAD 600 - Clinical Internship**  
Credits 0

Full-time internship under the supervision of registered practitioners or equivalent.

**Notes** This course is crosslisted with AAD 400. Credit at the 600-level requires additional work.

**Prerequisites** AAE 714L or equivalent.

**AAD 661 - Computer Applications in Architecture I**  
Credits 3

This course may also be used for graduate elective credit. For a description of this 600-level course, please consult the current UNLV Undergraduate Catalog where it is listed as a 400-level class.

**AAE 540 - Professional Practice and Society**  
Credits 3

Professional and societal issues in architectural practice including codes, zoning, licensing, regulations, ethics and standards, building and occupancy types, exiting, accessibility and fire protection.

**Same as** AAE 440

**AAE 555 - The Enlightenment to Mid-20th Century: Arch His and Theory**  
Credits 3

Exploration of the major movements in the history and theory of built form, beginning in the eighteenth century with the Enlightenment and continuing through the mid-twentieth century.

**Formerly** AAE 655

**Notes** Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing.

**AAE 635 - Sustainable Design Principles**  
Credits 3

Exploration of sustainable design emphasizing application of analytical, conceptual, and representational skills within projects that engage cultural, ecological, technological, and urban contexts.

**Formerly** AAE 735

**Prerequisites** Graduate standing.

**AAE 651 - Multidiscipline Theory and Analysis in Architecture**

Credits 3

Examination of the discourse of ideas that center on theories of architecture and related disciplines. Emphasis will be given to contemporary theories, their lineages, and their function in the genesis of architectural projects.

**Notes** This course is crosslisted with AAE 451. Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing.

AAE 653 - Visionary and Utopian Architecture: Plato to Bladerunner

Credits 3

Examination of the nature of visionary and utopian architecture through analysis of historical and contemporary precedent, and exploration of possibilities for application of visionary and utopian thought to design.

**Notes** This course is crosslisted with AAE 453. Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing.

AAE 654 - Architecture and the New Urbanism

Credits 3

Examination of New Urbanism and its implications for architectural design practices.

**Notes** This course is crosslisted with AAE 454. Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing.

AAE 657 - Architecture in Las Americas

Credits 3

Latin American and Latino architectural issues as represented in mainstream practices.

**Notes** This course is crosslisted with AAE 457. Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing.

AAE 658 - History of Renaissance and Baroque Architecture

Credits 3

Architecture of Europe from 1400 to 1800.

**Notes** This course is crosslisted with AAE 458. Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing.

AAE 660 - Issues in Contemporary Urbanism

Credits 3

Examines the forces shaping contemporary architectural and urban design practices including the

effects of cultural, economic, and political transformations upon spatial formations.

**Notes** This course is crosslisted with AAE 460. Credit at the 600-level requires additional work.

AAE 685 - Non-Western Settlements

Credits 3

Study of non-Western design throughout the world. Examination of cultural, historical, and geographical determinants in the construction of a specific design. Consideration of the impact of multicultural activities. Investigation from supplemental disciplines like sociology, anthropology, and urban geography.

**Notes** This course is crosslisted with AAE 485. Credit at the 600-level requires additional work.

AAE 711L - Graduate Design I: Design and Communication

Credits 3

Basic principles of design and communication. Understanding of the fundamentals of architectural graphics, 2-D design principles, 3-D composition and the effect of design elements on design decisions.

**Prerequisites** Graduate standing.

AAE 712L - Graduate Design II: Fundamentals

Credits 6

Principles of design for graduate students. Understanding of the fundamentals of architectural design principles, site planning, architectural programming, response to specific and unique climate conditions for a given site.

**Prerequisites** AAE 711L or consent of graduate coordinator.

AAE 713L - Graduate Design III

Credits 6

Design of residential structures at different scales. Emphasis on psychological and behavioral aspects of space and analysis of user needs.

**Prerequisites** AAE 712L or consent of graduate coordinator.

AAE 714L - Graduate Design IV

Credits 6

Design of medium scale urban buildings. Emphasis on integration of building systems, urban design issues, and value engineering analysis.

**Prerequisites** AAE 713L or consent of graduate coordinator.

AAE 756 - Design Practice Management  
Credits 3

Investigation of professional management and organizational issues in the practice of architecture including project delivery, strategic business and financial planning.

**Prerequisites** AAE 772L

AAE 770 - Research Methods in Environmental Design

Credits 3

Survey of research methods in environmental design. Quantitative and qualitative methods used in researching design, social/behavioral and technical problems in architecture.

**Prerequisites** Graduate standing.

AAE 771L - Architectural Design V

Credits 6

Design and presentation of complex urban developments and multistory structures in an urban context.

**Prerequisites** AAE 714L or consent of graduate coordinator.

AAE 772L - Architectural Design VI

Credits 6

Continuation of Architectural Design V, AAE 771L.

**Prerequisites** AAE 771L

**Corequisite** ABS 741

AAE 775 - Tourist Facility Design and Development

Credits 3

Focuses on the interrelationships of social, economic and physical aspects of total tourist facilities design, with emphasis on the physical development of tourism, planning concepts of tourist centers and resort areas.

**Prerequisites** Consent of instructor.

AAE 780 - The Design-Build Process

Credits 3

Design-build process for project delivery. Analysis of alternative methods. Exploration of design-build concept from initial phases through to project start up and delivery.

**Prerequisites** Graduate standing.

AAE 789 - Architecture Research Studio

Credits 6

Comprehensive building design project producing final report summarizing the building typology and conceptual design research and definitive written program requirements.

**Prerequisites** AAE 772L

AAE 790 - Professional Project Design

Credits 6

Design of a complex building, a major design competition, or a comprehensive, integrated building design problem.

**Prerequisites** AAE 789

AAE 791 - Thesis Writing

Credits 6

Full draft of the written thesis must be completed.

Refinement of the problem statement and methodology, completion of literature review, investigation of the chosen problem, data collection and analysis expected.

**Notes** May be repeated until course requirements are satisfied, but only six credits counted toward M.Arch. Degree.

**Grading** S/F grading only.

**Prerequisites** Consent of graduate coordinator.

AAE 793 - Advanced Independent Study

Credits 1 – 3

Advanced independent study of a selected topic in architectural design. Paper required.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing and consent of instructor.

AAE 795 - Advanced Special Topics in Design

Credits 1 – 4

Outlet for experimental and other topics which may be of current interest in design.

**Notes** Topics and credits to be announced. May be repeated to a maximum of eight credits.

**Prerequisites** Graduate standing and consent of instructor.

AAI 723 - Interior Construction Documents and Specifications

Credits 3

Preparation methods of effective construction documents and specifications guided by an

understanding of regulations, standards, and material selection criteria. Comprehensive coverage of legal, industry regulatory, contractual, and construction issues critical to healthcare facilities planning and design.

**Corequisite** HID 774

HID 673 - Design Communication I.

Credits 6

The development of fundamental design communication skills and knowledge which are integral to the complex process of design decision making. An overview of design theories and applications of methodologies basic to the development of design concepts, as well as the two and three dimensional representation of design products.

HID 674 - Design Communication II.

Credits 6

A hybrid seminar/workshop course organized around a healthcare design methodological paradigm for conceptualizing and producing digital and analogue output that is driven by a project that, in turn, is driven by sequenced investigations. Functions of software are utilized as approaches to the digitization of interior spatial qualities.

**Prerequisites** HID 673

HID 700 - Professional Internship

Credits 0

Professional work experience in a design or government office under the supervision of a licensed or registered practitioner. Supervision is provided by both the Healthcare Interior Design Program Coordinator and the cooperating agency. Registration for course requires Program Coordinator pre-approval.

**Grading** S/F grading only.

HID 773 - Healthcare Design I.

Credits 6

First in a sequence of three project-based and data-driven Healthcare Design courses organized around a neuroscience-informed design methodological paradigm. Innovative design strategies are developed for private and small group environments to support the transformation of healthcare from reactive and hospital-centered to preventive, person-centered and

focused on well-being rather than disease.

**Corequisite** AAI 650

HID 774 - Healthcare Design II.

Credits 6

Second in the sequence of three Healthcare Design courses is the design of specialized continuing care environments. Creative and innovative design strategies are developed to support independent living, assisted living, or nursing home care in later years while actively engaging in the culture of a surrounding community.

**Prerequisites** HID 773

**Corequisite** AAI 723

HID 775 - Healthcare Design III.

Credits 6

Third in the sequence of three Healthcare Design courses is the design of healthcare facilities and healing environments. Creative and innovative design strategies are developed toward the influencing of the direction of responsibly built environments that will directly and positively impact the safety, operation, clinical outcomes, and financial success of healthcare facilities.

**Prerequisites** HID 774

HID 776 - Design Thesis Research

Credits 3

A seminar/lecture course designed to engage processes involved in planning a thesis research to programmatically inform and guide the production of a successful thesis design project. The course is organized around a framework for defining a thesis topic, research methodologies, writing a comprehensive proposal, and developing a research plan.

HID 777 - Design Thesis

Credits 6

Self-directed design studio course to further investigate and evaluate theoretical ideas beyond Design Thesis Research pursuant to each student's delineated conceptual framework for research-based design. Continued applications of both traditional scholarly, and design-based research methods by which design processes can engage broader issues in healthcare design

**Prerequisites** HID 776

ABS 521 - Construction Technologies I

Credits 3

Basic materials, methods and detailing of landscape, building and interior construction. Includes effects of zoning and code requirements.

**Same as** ABS 321

ABS 522 - Construction Technologies II

Credits 3

Investigation of building materials, assemblies, and construction delivery systems and their impact upon architectural design.

**Same as** ABS 322

**Prerequisites** AAE 521 or instructor consent.

ABS 531 - Environmental Control Systems I

Credits 3

Climate, energy use, and comfort as determinants of architectural form in small-scale buildings. Emphasis on architectural methods of daylighting, heating, cooling, and ventilation for envelope-load dominated buildings.

**Same as** ABS 331

**Corequisite** ABS 531L

ABS 532 - Environmental Control Systems II

Credits 3

Building design implications of HVAC systems, vertical transportation, water supply and waste systems, acoustics, and lighting systems in accordance with current building codes.

**Same as** ABS 332

**Prerequisites** AAE 531 / AAE 531L or instructor consent.

**Corequisite** ABS 532L

ABS 541 - Structures for Architects I

Credits 3

Theory and basic elements of simple structural systems for architects, designers, and construction manager. Lecture and field trip.

**Same as** ABS 341

ABS 621 - Construction Technologies

Credits 3

Detailed study of the properties and industry applications of basic materials, construction methods and technologies for the design of buildings. Zoning and building code requirements are emphasized in

relation to design, detailing, specifying, cost analysis, and green materials and systems.

ABS 632 - Solar Energy Applications in Architecture

Credits 3

Solar energy as a renewable energy resource for heating and cooling of buildings. Presents technical and design issues of passive and active solar energy systems, as well as solar electric power (photovoltaics). Emphasis on architectural design integration and occupant comfort. Explores design-related projects and case studies of existing solar buildings.

**Prerequisites** Graduate standing.

ABS 640 - Structures For Architects II

Credits 3

Continuing from Structures for Architects I, this course focuses on concepts of flexure, shear and deflection, shear and moment diagrams, compression and buckling, continuity and indeterminate structures. An emphasis is placed on understanding overall building behavior, including lateral forces and lateral framing systems, soils and foundations, and essential principles of concrete construction.

**Notes** This course is crosslisted with ABS 440.

Credit at the 600-level requires additional work.

ABS 641 - Structures For Architects III

Credits 3

This advanced elective class offers the opportunity to explore complex structural assemblies such as tensile membrane and shell structures, tensegrity and geodesic construction as well as high-rise structural systems. Lab activities that include experimental construction and testing of models plus advanced computer simulation of behavior reinforce the elemental principles.

**Notes** This course is crosslisted with ABS 441.

Credit at the 600-level requires additional work.

ABS 643 - Interior Lighting Design

Credits 3

Principles of interior lighting and daylighting. Electrical loading, evaluation of light sources for distribution, cost, and color.

**Notes** This course is crosslisted with ABS 443.

Credit at the 600-level requires additional work.

**Prerequisites** ABS 532 or equivalent.

ABS 644 - Lighting Design and Technology

Credits 3

Provides an understanding of architectural lighting design. Fundamental principles of light, vision and perception, visual comfort and performance, daylight and electric light sources, systems and luminaires, electrical and lighting codes, and lighting design for a variety of applications. Emphasis on energy-efficient design strategies, system integration and occupant comfort.

**Formerly** ABS 731

**Prerequisites** ABS 643

ABS 741 - Integrated Building Systems

Credits 3

Design of building structures together with mechanical and electrical services, life safety codes, and building codes.

**Prerequisites** AAE 771L

**Corequisite** AAE 772L

ABS 743 - Advanced Computer Applications for Structures

Credits 3

Application of specialized computer programs in structural design.

**Prerequisites** ABS 341 or equivalent.

ABS 793 - Advanced Independent Study

Credits 1 – 3

Advanced independent study of a selected building science topic. Paper required.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing and consent of instructor.

ABS 795 - Advanced Special Topics in Building Science

Credits 1 – 3

Outlet for experimental and other topics of interest in advanced building science. Paper required.

**Notes** Topics and credits to be announced. May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing and consent of graduate coordinator.

AAD 701 - International Study

Credits 3 - 6

Full-time study of architecture and/or allied studies in a foreign location as designated by the program.

**Notes** May be repeated to a maximum of 12 credits.

**Prerequisites** Graduate standing and consent of graduate coordinator.

AAD 793 - Independent Study

Credits 1 – 3

Independent study of a selected topic in architectural design.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing and consent of graduate coordinator.

AAD 795 - Advanced Special Topics in Design

Credits 1 – 3

Experimental and other topics which may be of current interest in design.

**Notes** Topics and credits to be announced. May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing and consent of graduate coordinator.

AAI 632 - Interior Architectural Systems

Credits 3

Health promoting and comfort considerations in indoor thermal environments, air quality, ventilation, air conditioning, lighting and acoustics. Emphasis on the design applications of indoor environmental factors and the use of physical and computer modeling.

AAI 650 - Designed Environment and Human Behavior

Credits 3

Effects of interior spaces, architecture, and urban settings on human well-being and functioning.

**Notes** This course is crosslisted with AAI 450. Credit at the 600-level requires additional work.

AAI 654 - History of Architectural Interiors

Credits 3

A survey of western and non-western architectural interiors as manifestations and design expressions of social and cultural influences from the 19th century to present. Of fundamental concern is the analysis of major design trends and their relationships to corresponding aesthetic philosophies and historical periods.

AAI 655 - Facilities Planning and Design

Credits 3

Critical aspects of planning/design of the workplace. Addresses real estate use, effective space management through programming and master planning, forecasting, projections, workflow processes and efficiencies.

**Notes** This course is crosslisted with AAI 455. Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing and instructor consent.

#### AAI 680 - Furniture Design

Credits 3

Integrated overview of the development and evolution of contemporary furniture design and production. Fundamental concerns include the exploration and analysis of product-specific ergonomic, technical, cultural, and aesthetic considerations.

**Notes** This course is crosslisted with AAI 480. Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing and instructor consent.

#### AAI 691 - Professional Practice

Credits 3

An in-depth examination of the history and organization of the profession of interior design. Methods of the practice of providing professional services are studied with an emphasis on the development of strategic business, marketing and planning skills.

#### AAL 655 - Landscape Interpretation

Credits 3

Investigates the vernacular landscape evolving from decisions made in manipulating physical and social environments. Examines various landscape types, including agricultural, residential, strip development, landfill, industrial, transportation corridors, landmarks, and centers. Emphasizes wayfinding, implied symbolism, and meaning in the landscape.

**Notes** This course is crosslisted with AAL 455. Credit at the 600-level requires additional work.

#### AAL 656 - Campus Planning and Design

Credits 3

Survey of the history, principles, and spatial form of academic campuses.

**Notes** This course is crosslisted with AAL 456. Credit at the 600-level requires additional work.

#### AAL 665 - GIS Planning Methods

Credits 3

Environmental analysis and planning methods utilizing ArcInfo and ArcView program to develop data overlays.

**Notes** This course is crosslisted with AAL 465. Credit at the 600-level requires additional work.

#### AAL 667 - History and Theory of Golf Course Development

Credits 3

Provides a fundamental knowledge of the history and theory of golf course development.

**Notes** This course is crosslisted with AAL 467. Credit at the 600-level requires additional work.

#### AAL 668 - Golf Course Design

Credits 3

Explores the intricacies of designing a golf course. Strategic design, as well as golf course construction techniques, including: course routing, putting green complex design, clubhouse planning, and environmental considerations covered.

**Notes** This course is crosslisted with AAL 468. Credit at the 600-level requires additional work.

#### AAP 630 - Land Use Management

Credits 3

Planning implementation and evaluation of land use in both urban and non-urban contexts. Emphasis on sustainable use with a focus on conservation of valuable natural resources as well as energy. Constraints related to individual property rights and distribution of wealth treated.

**Notes** This course is crosslisted with AAL 430. Credit at the 600-level requires additional work.

#### AAP 646 - Urban Land Use: Planning and Controls

Credits 3

This course may also be used for graduate elective credit. For a description of this 600-level course, please consult the current UNLV Undergraduate Catalog where it is listed as a 400-level class.



## Art

The UNLV/MFA in studio art is a research-based program that uses a tutorial and seminar system as the primary basis for teaching. This means graduate students come in direct contact with faculty whose personal work is focused in a variety of media. At the same time that graduate students are encouraged to investigate new mediums and explore interdisciplinary options, they are also exposed to an experience-rich environment and guided through an exploration of the creative process. The possibilities for interaction with established artists are increased by a visiting artists and artist in residence program. MFA candidates are encouraged to establish and articulate their own creative and productive values. Each student is provided with individual studio space. There are a number of graduate assistantships available to assist and support students in their pursuit of the Master of Fine Arts degree. In addition, the UNLV studio art program is placed in a unique geographical position, which creates unlimited aesthetic opportunities minutes from the surrounding desert and the Las Vegas Strip.

The MFA Program, which is a part of the UNLV Graduate College, and fully accredited by The National Association of Schools of Art and Design (NASAD), is jointly administered by the Art Department's Graduate Coordinator and the Graduate College.

60 credit hours are required to complete the Degree in Masters of Fine Arts in Art. MFA candidates must be full-time students and are required to enroll in a minimum of 9 credits per semester. After completing 3 semesters or thirty credit hours in the program, the candidates submit their work in the form of a midway exhibition to the Graduate Committee for evaluation. A successful midway exhibition is a prerequisite for continuing in the program. The capstone of the UNLV MFA in Art is a solo graduation exhibition accompanied by a thesis, a thesis examination.

*Louisa McDonald, Ph.D., Chair*  
*Pasha Rafat, Graduate Coordinator*

## Art Faculty

### Chair

**McDonald, Aya Louisa** - Full Graduate Faculty Associate Professor; B.A., M.A., Ph.D., Stanford University. *Rebel since 2000.*

### Graduate Coordinator

**Rafat, Pasha** - Full Graduate Faculty Professor, B.S. Arizona State University, M.A., M.F.A. California State University, Fullerton. *Rebel since 1986.*

### Graduate Faculty

**Angel, Catherine** - Full Graduate Faculty Professor; B.F.A., University of Oklahoma; M.F.A., Indiana University. *Rebel since 1991.*

**Bellver, Jose** - Full Graduate Faculty Professor.

**Burden, Jeffrey K.** - Full Graduate Faculty Professor; B.F.A., University of Evansville; M.F.A., University of Indiana. *Rebel since 2007.*

**McDonald, Aya Louisa** - Full Graduate Faculty Associate Professor; B.A., M.A., Ph.D., Stanford University. *Rebel since 2000.*

**Seo, Sang-Duck** - Full Graduate Faculty Assistant Professor, BFA Taegu University, Korea, MFA Iowa State University. *Rebel since 2006.*

**Tracy, Robert H.** - Full Graduate Faculty Associate Professor; B.A., California State University, Hayward; M.A., Ph.D., University of California, Los Angeles. *Rebel since 1984.*

**Watkins, Helga** - Full Graduate Faculty Associate Professor; B.F.A., Savannah College of Art and Design; M.F.A., University of Notre Dame. *Rebel since 1999.*

### Professors Emeriti

**Abbey, Rita Deanin**  
Emeritus Professor; B.F.A., M.A., University of New Mexico. *UNLV Emeritus 1967-1987.*

**Burns, Mark**

Emeritus Professor; B.F.A., School of Dayton Art Institute; M.F.A., University of Washington. *UNLV Emeritus 1992-2011.*

**Holder, Thomas**

Professor.

**Leaf, Bill S.**

Professor; B.F.A., San Francisco Art Institute; M.A., University of California, Davis. *UNLV Emeritus 1973.*

**McCollum, Michael L.**

Emeritus Dean of Fine and Performing Arts; A.B., Humboldt State University; M.A., M.F.A., University of California, Berkeley. *UNLV Emeritus 1969-1995.*

**Pink, James**

Professor; B.S., M.A., Northern Illinois University; M.F.A., University of Florida. *UNLV Emeritus 1987.*

**Warner, Mary**

Associate Professor.

**Master of Fine Arts - Art****Plan Description**

The UNLV MFA degree is a three-year, research oriented and studio based program. It provides each student with studio space and a tutorial system that assures close contact with faculty members and peers, the latter implemented through visiting artist program that exposes new students to an experience-rich environment to help guide them in their exploration to establish and articulate their creative and productive activities. Graduate assistantships are available to defray expenses, and in addition, the city of Las Vegas provides a unique visual, architectural, and cultural setting that many students find to be inspiring.

The UNLV Art Department focuses on various areas of discipline including Drawing and Painting, Sculpture, Printmaking, Photography and Mixed-Media. While these areas are the department's primary focus, graduate students are encouraged to investigate and research any media discipline.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

**Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

A student working toward the M.F.A. – Art may select a major in ceramics, painting, photography, printmaking, drawing, sculpture, or graphic design. Applicants for the program leading to this degree must hold a Bachelor of Fine Arts in Art (or an equivalent degree) from an accredited university.

To be considered for admission to the program, applicants must submit for approval 20 slides of their work, a statement of intent, a resumé, official transcripts, and three letters of recommendation. These materials should be sent directly to the Department of Art. The application for admission, request for graduate assistantship, and an additional

set of original transcripts should be sent directly to the Graduate College.

To enter the program, the student should have a baccalaureate in the field in which he or she expects to major and should have completed at least 60 hours in art and art history as a requirement for that degree. A student with less than 60 hours must enroll in undergraduate courses until this requirement is met.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Post-Bachelor's Track**

Total Credits Required: 60

Course Requirements

#### **Studio Course – Credits: 6**

ART 721 - Graduate Faculty Studio

#### **Seminar Course – Credits: 6**

ART 700 - Seminar in Studio Practices

#### **Art History or Theory Courses – Credits: 6**

ART 677 - Art Since 1945

ART 737 - Theory and Criticism

#### **Theory or Directed Readings Courses – Credits: 3**

Complete 3 credits from the following list of courses:

ART 737 - Theory and Criticism

ART 747 - Directed Readings

#### **Additional Courses – Credits: 36**

Complete 36 credits from the following list of courses or other advisor-approved courses.

ART 710 - Graduate Studio

ART 720 - Graduate Projects

#### **Graduate Exhibition – Credits: 3**

ART 777 - Graduate Exhibition

#### **Degree Requirements**

1. Sixty credit hours are required to complete the degree. Approximately six regular semesters are necessary to cover requirements and prepare for the final exhibition. The M.F.A. candidate must be a full-time student (nine credits per semester).
2. In consultation with his/her advisor, a student will organize an advisory committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
3. After completing three semesters, or thirty credit hours, in the M.F.A. program, the candidate's work must be submitted to a committee for evaluation as a midway exhibition. The committee determines if the student's progress meets the standards required for advancement to candidacy. ART 720 should only be taken after the student has completed their midway exhibition.
4. The M.F.A. exhibition of the student's work must have the approval of the student's committee. After advancement to candidacy, students must complete a comprehensive project consisting of an exhibition of a representative body of creative work and a statement (2,000-word minimum) regarding the intent and underlying conceptualization. The final evaluation is oral and is prepared and conducted by the student's advisory committee during the student's exhibition.

- Two copies of a sheet of 35mm slides of work in the exhibition, along with two copies of the 2,000 word minimum statement, must be presented to the department during the exhibition for permanent record.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 2 Requirements: Post-M.A. Track**

Total Credits Required: 45

#### Course Requirements

##### **Studio Course – Credits: 6**

ART 721 - Graduate Faculty Studio

##### **Seminar Course – Credits: 6**

ART 700 - Seminar in Studio Practices

##### **Art History or Theory Courses – Credits: 6**

ART 677 - Art Since 1945

ART 737 - Theory and Criticism

##### **Theory or Directed Readings Courses – Credits: 3**

Complete 3 credits from the following list of courses:

ART 737 - Theory and Criticism

ART 747 - Directed Readings

##### **Additional Courses – Credits: 21**

Complete 21 credits from the following list of courses or other advisor-approved courses.

ART 710 - Graduate Studio

ART 720 - Graduate Projects

##### **Graduate Exhibition – Credits: 3**

ART 777 - Graduate Exhibition

#### Degree Requirements

- Forty-five credit hours are required to complete the degree. Approximately six regular semesters are necessary to cover

requirements and prepare for the final exhibition. The M.F.A. candidate must be a full-time student (nine credits per semester).

- In consultation with his/her advisor, a student will organize an advisory committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
- After completing approximately three semesters in the M.F.A. program, the candidate's work must be submitted to a committee for evaluation as a midway exhibition. The committee determines if the student's progress meets the standards required for advancement to candidacy. ART 720 should only be taken after the student has completed their midway exhibition.
- The M.F.A. exhibition of the student's work must have the approval of the student's committee. After advancement to candidacy, students must complete a comprehensive project consisting of an exhibition of a representative body of creative work and a statement (2,000-word minimum) regarding the intent and underlying conceptualization. The final evaluation is oral and is prepared and conducted by the student's advisory committee during the student's exhibition.
- Two copies of a sheet of 35mm slides of work in the exhibition, along with two copies of the 2,000 word minimum statement, must be presented to the department during the exhibition for permanent record.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Plan Graduation Requirements**

- The student must submit all required forms to the Graduate College and then apply for

- graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her M.F.A. exhibition by the posted deadline. The exhibit must be advertised and is open to the public.

## Art Courses

### ART 604 - Art in Public Places

Credits 3

Theoretical and practical investigation of art in public places. Concentration on collaborative process between artists, designers, architects and communities. Includes site considerations, grant writing, proposal preparation and presentation, budgeting, legal aspects, publicity and report development and documentation.

**Notes** This course is crosslisted with ART 404. Credit at the 600 level requires additional work.

### ART 662 - The History of Medieval Art

Credits 3

History of art from the fall of the Roman Empire to the Trecento (fourteenth century).

**Notes** This course is crosslisted with ART 462. Credit at the 600 level requires additional work.

### ART 663 - History of Early Renaissance Art

Credits 3

History of art from the late Gothic through the fifteenth century in Italy.

**Notes** This course is crosslisted with ART 463. Credit at the 600-level requires additional work.

### ART 664 - High Renaissance and Mannerist Art

Credits 3

History of art of the sixteenth century in Italy and Spain.

**Notes** This course is crosslisted with ART 464. Credit at the 600 level requires additional work.

### ART 665 - History of Northern Renaissance Art

Credits 3

History of Renaissance art in the countries north of the Alps.

**Notes** This course is crosslisted with ART 465. Credit at the 600-level requires additional work.

### ART 666 - History of Renaissance and Baroque Architecture

Credits 3

Architecture of Europe from 1400 to 1800.

**Notes** This course is crosslisted with ART 466. Credit at the 600 level requires additional work.

ART 667 - History of Baroque Art I  
Credits 3  
History of art of the seventeenth century in Italy and Spain.

**Notes** This course is crosslisted with ART 467.  
Credit at the 600 level requires additional work.

ART 668 - History of Baroque Art II  
Credits 3  
History of art during the seventeenth century in Flanders, Holland, and France.

**Notes** This course is crosslisted with ART 468.  
Credit at the 600 level requires additional work.

ART 669 - Art of Eighteenth Century Europe I  
Credits 3  
Eighteenth-century art in France.

**Notes** This course is crosslisted with ART 469.  
Credit at the 600 level requires additional work.

ART 670 - Art of Eighteenth Century Europe II  
Credits 3  
Eighteenth-century art in Italy, England, Germany and Spain.

**Notes** This course is crosslisted with ART 470.  
Credit at the 600 level requires additional work.

ART 672 - Nineteenth Century Art  
Credits 3  
History of European art in the nineteenth century.

**Notes** This course is crosslisted with ART 472.  
Credit at the 600 level requires additional work.

ART 673 - Twentieth Century Art  
Credits 3  
History of European art in the twentieth century.

**Notes** This course is crosslisted with ART 473.  
Credit at the 600 level requires additional work.

ART 674 - History of American Art  
Credits 3  
History of art in the United States from the seventeenth century until World War II.

**Notes** This course is crosslisted with ART 474.  
Credit at the 600 level requires additional work.

ART 676 - Performance and Media Art  
Credits 3  
Provides an alternative history of contemporary art, focusing on performance, media, participatory, and

action-based art from the early twentieth century to the present.

ART 677 - Art Since 1945  
Study of painting, sculpture, and architecture since World War II and of the critical and cultural milieu in which these art forms developed.

**Notes** This course is crosslisted with ART 477.  
Credit at the 600 level requires additional work.

ART 680 - The Art of China  
Credits 3  
Surveys the history of the art and architecture of China.

**Notes** This course is crosslisted with ART 480.  
Credit at the 600 level requires additional work.

ART 681 - Art of Japan  
Surveys the art and architecture of Japan from prehistoric to the Meiji Restoration. Inter-relationships between Japanese and western art briefly covered.

**Notes** This course is crosslisted with ART 481.  
Credit at the 600 level requires additional work.

ART 695 - Special Topics in Art History  
Credits 3  
**Notes** This course is crosslisted with ART 495.  
Credit at the 600 level requires additional work.

ART 700 - Seminar in Studio Practices  
Credits 3  
Studio practices directed toward the analysis of studio work. Fosters an open and conducive atmosphere for examination of media and concepts through constructive criticism.  
**Notes** May be repeated to a maximum of 12 credits.

ART 710 - Graduate Studio  
Credits 1 – 9  
Individual problems in major studio area, with choice of medium.  
**Notes** May be repeated with change of subject, maximum of 15 credits.  
**Prerequisites** Graduate standing.

ART 720 - Graduate Projects  
Credits 1 – 9  
Individual problems in major studio area, with choice of medium.

**Notes** May be repeated with change of subject, maximum of 30 credits.

**Prerequisites** Graduate standing in art.

ART 721 - Graduate Faculty Studio

Credits 1

Individual problems in the studio area with regularly scheduled discussion sessions involving all department faculty.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing in art.

ART 722 - Graduate Contemporary Practice Seminar

Credits 3

Practice and theory of contemporary space, with emphasis on critical examination of object making utilizing speculative investigations and a synthesis of means. Goals of the course include critical theory, current art criticism, and advancement of the studio practice toward the current global discourse in art.

**Notes** May be repeated to a maximum of fifteen credits.

ART 727 - Historiography

Credits 3

Surveying the variety of methods utilized by scholars of the humanities to study the visual arts in the Western world.

**Prerequisites** Graduate standing.

ART 737 - Theory and Criticism

Credits 3

Analyzes the various aesthetic theories of art in the Western world.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Graduate standing.

ART 747 - Directed Readings

Credits 1 – 3

Directed readings in art history in a specific area agreed upon by the students and faculty prior to registration.

**Notes** May be repeated for a maximum of nine credits.

**Prerequisites** Graduate standing.

ART 777 - Graduate Exhibition

Credits 3

Culminates in a graduate exhibition presented by the candidate for the Master of Fine Arts degree.

**Prerequisites** Must be taken in final semester with show exhibition, graduate standing.

## Film

The UNLV Department of Film offers a Master of Fine Arts degree in Writing for Dramatic Media. This terminal film degree provides students with opportunities to develop motion picture screenplays, stage plays, television series, content for the Internet, mobile communication, and game-scripting. This is in keeping with the narrative driven curriculum of the Film Department as a whole. This M.F.A. professional training program presents superior academic and artistic standards for the candidates. They are challenged to elevate their talent and craft to levels of excellence to make for seamless transfers into careers in the entertainment industry. Students completing the three-year program will have a significant group of feature motion picture and television scripts that have been honed to the sharpest professional sensibility. In addition to faculty with professional experience, the students are exposed to a variety of guests who are working in the industry.

*Francisco Menendez, Chair*

*Sean Clark, Graduate Coordinator*

## Film Faculty

### Chair

**Menendez, Francisco**- *Full Graduate Faculty*  
Professor; B.A., University of Puget Sound; M.F.A.,  
California Institute of the Arts. *Rebel since 1990.*

### Graduate Coordinator

**Clark, Patrick Sean**- *Full Graduate Faculty*  
Associate Professor; B.S., University of Missouri;  
M.F.A., University of Iowa. *Rebel since 1999.*

### Graduate Faculty

**Gilyard, Clarence**  
Associate Professor; B.A., California State  
University; M.F.A., Southern Methodist University.

**Levner, Brett**  
Assistant Professor; B.F.A., New York University's  
Tisch School of the Arts.

**Schmoeller, David**  
Associate Professor.

**Waldman, David**  
Assistant Professor; M.F.A., American Film Institute.

**Wegner, Hart L.**- *Full Graduate Faculty*  
Professor; B.A., M.A., University of Utah; Ph.D.,  
Harvard University. *Rebel since 1968.*



## **Graduate Certificate in Writing for Dramatic Media**

### **Plan Description**

The UNLV Department of Film offers a Graduate Certificate in Writing for Dramatic Media. The mission of the Writing for Dramatic Media Certificate Program at UNLV is to give graduate students in other disciplines the opportunity to study creative writing for various dramatic media at a professional standard and to award those who complete the program a valuable distinction to benefit them in their careers.

### Learning Outcomes

Graduate Certificate in Writing for Dramatic Media

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

The certificate candidate must already have been accepted by the Graduate College at UNLV and be a graduate degree-seeking candidate in good standing in a field other than film. The candidate must have the authorization by the graduate coordinator or advisor from their own program or department. The certificate candidate may start at any time in their studies, but must complete the requirements prior to, or in the same semester, as completing their graduate degree.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 12

### Course Requirements

### **Screenwriting course – Credits: 6**

Complete 6 credits of the following course:

FIS 722 - Graduate Screenwriting

### **Required courses – Credits: 6**

Complete 6 credits from the following courses:

FIS 615 - Story Development

FIS 618 - Writing for Television I

FIS 619 - Writing for Television II

FIS 720 - Advanced Cinematic Structure

FIS 723 - Ensemble Screenwriting

FIS 724 - The Adaptation Screenplay

FIS 725 - Writing for Assignment

FIS 726 - Advanced Screenplay Analysis

FIS 727 - Advanced Screenplay Theory

FIS 728 - Graduate Production

### Certificate Requirements

1. Completion of a minimum of 12 credit hours with a minimum GPA of 3.00.
2. The culminating experience will be a two hour oral defense of a significant creative work that was developed within the program.

### **Plan Certificate Completion Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.
2. The student must successfully complete and defend his/her final project.

## Master of Fine Arts - Writing for Dramatic Media

### Plan Description

The UNLV Department of Film offers a Master of Fine Arts in Writing for Dramatic Media. This terminal degree focuses specifically on the art and craft of writing for performance. This is a three-year long creative writing discipline housed in a film department. The focus of the program is on developing feature screenplays but the candidate will also produce television screenplays, stage plays, and various types of work for digital media as it evolves. The program is based on a "conservatory" approach of practice and repetition and includes a significant amount of "pitching," or working aloud, as part of the process. Students completing the three-year program will have a significant group of feature motion picture, television, and other scripts that have been honed to a professional level. In addition to faculty with professional experience, the students are exposed to a variety of professional guests.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Students are admitted in the fall term of each academic year. In addition to the general requirements for admission to the Graduate College, the following materials must be submitted.

1. A writing sample to the Graduate Coordinator. This sample should be a screenplay. A stage play or prose fiction will suffice if approved by the coordinator. The sample is needed to demonstrate narrative ability.
2. The names, addresses, and telephone numbers of two references.

3. Finalists will be interviewed, by telephone or in person, by the Graduate Coordinator. Review of applications begins January 15.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 54

#### Course Requirements

##### Screenwriting Course – Credits: 18

Complete 18 credits of the following course:

FIS 722 - Graduate Screenwriting

##### Required Courses – Credits: 18

Complete 18 credits from the following courses:

FIS 615 - Story Development

FIS 618 - Writing for Television I

FIS 619 - Writing for Television II

FIS 720 - Advanced Cinematic Structure

FIS 723 - Ensemble Screenwriting

FIS 724 - The Adaptation Screenplay

FIS 725 - Writing for Assignment

FIS 726 - Advanced Screenplay Analysis

FIS 727 - Advanced Screenplay Theory

FIS 728 - Graduate Production

##### Elective Courses – Credits: 18

Complete 18 credits of 600- or 700-level advisor approved courses.

#### Degree Requirements

1. Completion of a minimum of 54 credit hours with a minimum GPA of 3.00.
2. In consultation with his/her advisor, a student will organize an advisory committee

of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

3. During the three years of study, each screenwriting student will be expected to complete a minimum of four full-length feature motion picture screenplays and two television scripts. In practice, the output is actually closer to five screenplays and four television scripts. One screenplay will be selected to be the candidate's thesis script. It will undergo final revision as the work most indicative of the candidate's art and craft.
4. A two-hour oral examination will take place at the end of the course of study. This examination focuses on the student's final project (1 hour) and on all remaining work completed within the program (1 hour).

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete and defend his/her final project.

### **Film Courses**

FIS 615 - Story Development  
Credits 3

Basis of cinematic structure, emphasizing action, construction, tension, and character. Story development through motion picture formats.

**Notes** This course is crosslisted with FIS 415. Credit at the 600-level requires additional work.

FIS 618 - Writing for Television I  
Credits 3

With emphasis on the narrative exploration of the television hour-drama, students develop and complete one hour-drama spec script.

**Notes** This course is crosslisted with FIS 418. Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

FIS 619 - Writing for Television II  
Credits 3

As a continuation of FIS 618, students explore the television situation comedy and develop and complete one sit-com script.

**Notes** This course is crosslisted with FIS 419. Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

FIS 720 - Advanced Cinematic Structure  
Credits 3

Analytical study of screenplay structure based on the filmed script. Select motion pictures established as subject films studied in piece and in detail as to how the structure of each scene works as itself and in the film as whole.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing.

FIS 721 - Collaboration and Preparation  
Credits 3

Practical exploration of the working process between the screenwriter, the director and the producer.

Focuses moving the screenplay from "writers" draft to "production" draft in preparation for shooting.

**Notes** May be repeated for a maximum of six credits.

**Prerequisites** Graduate standing.

FIS 722 - Graduate Screenwriting  
Credits 3

Study of art and craft of writing a feature-length

motion picture screenplay. Student completes a full-length (120 pages) screenplay or completes a thorough revision in workshop environment.

**Notes** May be repeated for a maximum of eighteen credits.

**Prerequisites** Consent of instructor.

FIS 723 - Ensemble Screenwriting

Credits 3

Study of the art and craft of screenwriting in an ensemble. Students, as a group, complete four short screenplays and revisions.

**Notes** May be repeated for a maximum of six credits.

**Prerequisites** Consent of instructor.

FIS 724 - The Adaptation Screenplay

Credits 3

Study of adapting a screenplay from another written medium by writing a full-length (120-page) screenplay in accepted industry format. The screenplay must have a contemporary setting but source material must be at least 100 years old and in public domain.

**Notes** May be repeated for a maximum of six credits.

**Prerequisites** Consent of instructor.

FIS 725 - Writing for Assignment

Credits 3

Study and practice of editing, rewriting and revising the creative work of other screenwriters. Students analyze precedent of revising known screenplays, rewrite a full-length script as a group and commit an individual rewrite of a full-length script.

**Notes** May be repeated for a maximum of six credits.

**Prerequisites** Consent of instructor.

FIS 726 - Advanced Screenplay Analysis

Credits 3

In-depth analytical study of a filmed script. Analysis ranges from the effects of a scripted visual technique to metaphor to personal and societal influences.

Students write and present two analytical papers.

**Prerequisites** Consent of instructor.

FIS 727 - Advanced Screenplay Theory

Credits 3

Analytical study of motion pictures with focus on the screenwriter's intent and agenda. Students conduct thorough research on screenwriters and provide analysis of the screenwriters' product. Students

present and defend two papers combining this research and analysis.

**Prerequisites** Consent of instructor.

FIS 728 - Graduate Production

Credits 3

Analytical approach to the professional production of a student's screenplay. Students chronicle all levels of involvement with the physical "shooting" of his, or her, script.

**Notes** May be repeated for a maximum of six credits.

**Prerequisites** Consent of instructor.

## School of Music

The UNLV School of Music provides a professional artistic environment that supports programs of excellence in the development of musicians. The School of Music offers graduate programs, accredited by the National Association of Schools of Music, which lead to the Master of Music degree with options in Applied Music (Performance), Composition /Theory, Music Education, or Conducting. The Doctor of Musical Arts degree is offered in Performance.

Students not admitted to graduate programs in Music may register for graduate courses only with permission from the instructor of the course and the appropriate program administrator.

*Sue Mueller, Interim Chair*

*Jennifer Grim, DMA, Graduate Coordinator*

## School of Music Faculty

### Chair

**Mueller, Susan** - *Full Graduate Faculty*  
Associate Professor; B.M., The University of Kansas; M.M., Lesley College. *Rebel since 2002.*

### Graduate Coordinator

**Grim, Jennifer** - *Full Graduate Faculty*  
Associate Professor; B.A., Stanford University; M.M., M.M.A., D.M.A., Yale University. *Rebel since 2007.*

### Graduate Faculty

**Anderson, Alfonse** - *Full Graduate Faculty*  
Professor; B.A., M.M., Texas Southern University; D.M.A., University of Arizona. *Rebel since 1997.*

**Baley, Virko** - *Full Graduate Faculty*  
Professor; B.M., M.M., Los Angeles Conservatory of Music and Arts. *Rebel since 1970.*

**Barone, Anthony** - *Full Graduate Faculty*  
Associate Professor; B.A., Cornell University; M.A., Eastman School of Music; Ph.D., Columbia University. *Rebel since 2006.*

**Bernatis, Bill** - *Full Graduate Faculty*  
Associate Professor; B.M., Washburn University of Topeka; M.M., Indiana University Bloomington. *Rebel since 1998.*

**Burkett, Eugenie** - *Full Graduate Faculty*  
Associate Professor; B.M.E., Baylor University; M.M., Manhattan School of Music; Ph.D., University of Wisconsin-Madison. *Rebel since 2005.*

**Caplan, Stephen** - *Full Graduate Faculty*  
Professor; B.M., Northwestern University; M.M., D.M.A., University of Michigan. *Rebel since 1989.*

**Fitzpatrick, Tod** - *Full Graduate Faculty*  
Associate Professor; B.M., Chapman University; M.M., University of Southern California; D.M.A., University of Southern California. *Rebel since 2003.*

**Grim, Jennifer** - *Full Graduate Faculty*  
Associate Professor; B.A., Stanford University;

M.M., M.M.A., D.M.A., Yale University. *Rebel since 2007.*

**Gronemeier, Dean** - *Full Graduate Faculty*  
Professor and Associate Dean; B.A., Northern Illinois University; M.M., D.M.A., University of Arizona; J.D., University of Nevada, Las Vegas. *Rebel since 1989.*

**Hanlon, Kenneth M.** - *Full Graduate Faculty*  
Professor; B.M., M.M., D.M.A., Peabody Conservatory of Music of Johns Hopkins University. *Rebel since 1970.*

**Hoft, Timothy** - *Full Graduate Faculty*  
Assistant Professor, B.M., University of Michigan; M.M., Peabody Conservatory of Music of Johns Hopkins University; D.M.A. Peabody Conservatory of Music of Johns Hopkins University. *Rebel since 2012.*

**Jones, Timothy** - *Full Graduate Faculty*  
Assistant Professor-in-Residence, B.M., University of Adelaide; D.M.A., University of Nevada, Las Vegas. *Rebel since 1997.*

**Krysa, Taras**  
Associate Professor; B.M., Manhattan School of Music; M.M., Indiana University; M.M., Northwestern University. *Rebel since 2007.*

**LaBounty, Anthony** - *Full Graduate Faculty*  
Associate Professor; B.M. University of Arizona; M.S., University of Illinois Urbana. *Rebel since 1988.*

**Le, Wei-Wei**  
Associate Professor; B.M. Oberlin Conservatory of Music; M.M. Cleveland Institute of Music. *Rebel since 2007.*

**Leslie, Thomas** - *Full Graduate Faculty*  
Professor; B.M.E., University of Iowa; M.S., Indiana State University. *Rebel since 1985.*

**Lister, Linda** - *Full Graduate Faculty*  
Assistant Professor; A.B., Vassar; M.M. Eastman School of Music; D.M.A., University of North Carolina-Greensboro. *Rebel since 2011.*

**Loeb, David** - *Full Graduate Faculty*  
Professor; B.S., West Chester University; M.M., The University of Rochester, Eastman School of Music. *Rebel since 2002.*

**McKay, Janis** - *Full Graduate Faculty*  
Associate Professor; B.M., University of Georgia; M.M., University of Louisville; D.M.A., Ohio State University. *Rebel since 1995.*

**Smith, Andrew** - *Full Graduate Faculty*  
Associate Professor; B.M., Hartt College of Music; M.M., Mannes College of Music; D.M.A., University of California, Santa Barbara. *Rebel since 1995.*

**Sturm, Marina** - *Full Graduate Faculty*  
Associate Professor; Wisconsin Conservatory of Music; Institute de Hautes Etudes Musicales; M.M., Victoria University; D.M.A., State University of New York at Stony Brook. *Rebel since 2004.*

**Suk, Mykola** - *Full Graduate Faculty*  
Associate Professor; B.M./M.M., D.M.A., Moscow State Conservatory of Music. *Rebel since 2001.*

**Tanouye, Nathan** - *Associate Graduate Faculty*  
Assistant Professor; B.A., University of Nevada, Las Vegas. *Rebel since 2010.*

**Taranto, Cheryl** - *Full Graduate Faculty*  
Head Music Librarian; B.M., M.M., M.L.S., Ph.D., Louisiana State University. *Rebel since 1996.*

**Vega, Diego** - *Full Graduate Faculty*  
Assistant Professor; Assistant Professor; B.M., Universidad Javeriana; M.M., University of Cincinnati College - Conservatory of Music; D.M.A. Cornell University. *Rebel since 2010.*

**Warrington, Tom** - *Full Graduate Faculty*  
Professor; B.M., University of Illinois Urbana Campus; M.M. Bowling Green State University. *Rebel since 1999.*

**Weiller, David** - *Full Graduate Faculty*  
Associate Professor; B.A., Occidental College; M.M., University of Illinois Urbana. *Rebel since 1984.*

### Professors Emeriti

**Emerson, Isabelle**

Emeritus Professor; A.B. Barnard College; S.M.M. Union Theological Seminary; M. PHIL. Columbia University; Ph.D. Columbia University. *UNLV Emeritus 1979-2006.*

**Kimball, Carol A.**

Emeritus Professor; B. S. New York University; M. A. Arizona State University; D.M.A. Arizona State University. *UNLV Emeritus 1972-2008.*

**Peterson, Douglas**

Emeritus Professor; B.A. Grinnell College; B.M.E., Florida State University; M.A. University of Iowa; D.M.A., University of Iowa. *UNLV Emeritus 1967-2000.*

## Doctor of Musical Arts

**Plan Description**

The Doctor of Musical Arts degree represents the highest level of academic and musical achievement at UNLV. The program is designed for those students who choose to pursue careers in both performance and college-level teaching.

Our program provides intensive academic preparation and teaching of the type that will enable students to be effective pedagogues and to function successfully in an academic environment while continuing their development as performing artists.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

Learning outcomes for specific subplan tracks can be found below:

- Applied Brass, Piano, Strings, Woodwinds
- Applied Music: Applied Conducting
- Applied Music: Applied Percussion
- Applied Music: Applied Voice

**Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Students applying for admission to the Doctor of Musical Arts degree program must make application through the Graduate College. There are different deadlines for international students, and for students who wish to apply for assistantships, which are also found on the Graduate College website. In addition to submitting an application and transcripts of all college-level work to the Graduate College, prospective students must have a Master's degree in music from a NASM accredited institution.

**Placement Exams**

Prior to registration, all School of Music graduate students must take placement examinations in music history, theory, and aural skills/sight-singing, regardless of their area of concentration. Passing

scores on these exams, or passing grades in the appropriate history or theory review courses (B or above) are required before students may enroll in graduate level history and theory courses. Credit for review courses will not be applied towards the degree.

Successful completion of MUS 690 - Bibliography , with a minimum grade of B, is a pre-requisite for all graduate-level music history classes.

### **Music History Placement Exam**

The examination is an assessment of accumulated knowledge. Students may wish to prepare, however, by reviewing the facts and concepts in J. Peter Burkholder, Donald J. Grout, and Claude V. Palisca, A History of Western Music, 7th edition (New York: W.W. Norton, 2006), the volumes of the Prentice Hall History of Music series, or similar texts.

Students who show deficiencies in music history will be required to register for MUS 603 - Graduate Music History Review . The examination is given prior to the first day of instruction for the Fall semester. The exact date, time, and location may be found on the School of Music website:

<http://music.unlv.edu/home.shtml>

Students must take the exam at the designated time; no make-up examinations will be given. Students who fail to take the exam at the scheduled time must complete MUS 603 before enrolling in any other music history course. This course is offered in the Fall semesters only.

For more specific details concerning the placement exam, please consult the Music History Handbook, available on the School of Music website:

<http://music.unlv.edu/home.shtml> or contact Dr.

Anthony Barone (702) 895-5953,  
([anthony.barone@unlv.edu](mailto:anthony.barone@unlv.edu)).

### **Graduate Music Theory and Aural Skills/Sight-singing Placement Examination**

A sample graduate theory placement exam may be found on the School of Music's website:

<http://music.unlv.edu/home.shtml>

The Graduate Aural Skills/Sight-singing Placement Examination consists of:

1. Two-voice dictation

2. Three-voice dictation
3. Harmonic dictation
4. Two-part rhythmic dictation
5. Sight-singing of a melody in any of the modern clefs (treble, alto, tenor, bass). A single melody may contain clef changes.

Students who show deficiencies in music theory and/or aural skills/sight-singing will be required to register for MUS 604 - Graduate Theory Review and/or MUS 602 - Graduate Ear Training Review.

The Graduate Music Theory and Aural Skills/Sight-singing Placement Examination is given prior to the first day of instruction for the Fall semester and the Spring semester. The exact date, time, and location may be found on the School of Music's website: <http://music.unlv.edu/home.shtml>

Students must take the exam at the designated time; no make-up examinations will be given. Students who fail to take the exams at the scheduled time must complete MUS 604 and MUS 602 before enrolling in any other music theory course.

For more specific details concerning the placement exam, please contact the School of Music Office or the Graduate Coordinator (702) 895-3332.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Brass Track**

Total Credits Required: 60

Course Requirements

#### **Required Courses – Credits: 4**



MUS 773 - Research Seminar  
MUS 719 - Teaching Music in Higher Education

### **History/Literature Courses – Credits: 9**

Complete 9 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
MUS 530 - French Melodie  
MUS 770A - Graduate History Seminar  
MUS 770B - Beethoven  
MUS 770C - Fin de Siecle  
MUS 770D - Music of Wagner  
MUS 770E - Music of Bach  
MUS 770F - Music of Stravinsky  
MUS 770G - History of Russian Music  
MUS 785 - The Symphony  
MUS 786A - The Operas of Mozart  
MUS 786B - The Operas of Verdi  
MUS 786C - Puccini and the Verismo  
MUS 786D - American Opera Seminar  
MUS 789 - The Art Song  
MUS 792 - History of Opera  
MUS 793 - Medieval and Renaissance Music  
MUS 794 - Music of the Baroque Period  
MUS 795 - Classical and Early Nineteenth-Century Music  
MUS 796 - Music of the Romantic Period  
MUS 797 - Music of the Twentieth Century

### **Music Theory Courses – Credits: 6**

Complete 6 credits from following list of courses:

MUS 501 - Counterpoint  
MUS 705 - Techniques of the Romantic Period  
MUS 706 - Twentieth-Century Techniques  
MUS 707 - Analysis in Relation to Performance  
MUS 708 - Aspects of Musical Style  
MUS 709X – Analysis of 20th and 21st Century Music  
MUS 774 - Seminar in Music Theory  
MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

### **Pedagogy Course – Credits: 3**

Complete three credits from the following list of courses:

MUS 720 - Instrumental Music Reading and Conducting Workshop  
MUS 727A - Survey of Ensemble Repertoire-String  
MUS 727B - Survey of Ensemble Repertoire-Woodwind  
MUS 727C - Survey of Ensemble Repertoire-Brass  
MUS 727D - Survey of Ensemble Repertoire-Percussion  
MUS 727E - Survey of Ensemble Repertoire-Piano  
MUS 727F - Survey of Ensemble Repertoire-Vocal  
MUS 727G - Survey of Ensemble Repertoire-Band  
MUS 728 - Percussion Literature and Pedagogy  
MUS 746 - Master Class in Vocal Pedagogy  
MUS 747 - Instrumental Music Pedagogy  
MUS 747A - Instrumental Music Pedagogy-Piano  
MUS 747B - Instrumental Music Pedagogy-Brass  
MUS 747C - Instrumental Music Pedagogy-Woodwind  
MUS 747D - Instrumental Music Pedagogy-String  
MUS 747E - Instrumental Music Pedagogy-Guitar  
MUS 747F - Instrumental Music Pedagogy-Band  
MUS 747G - Instrumental Music Pedagogy-Orchestra  
MUS 748 - Music Wellness: A Survival Guide for Teachers and Performers

### **Applied Lessons Courses – Credits: 16**

Complete 16 credits from the following course corresponding to the student's primary instrument:

MUSA 764A - Applied Music for Doctoral Students: Euphonium  
MUSA 764F - Applied Music for Doctoral Students: Horn  
MUSA 764L - Applied Music for Doctoral Students: Trombone  
MUSA 764M - Applied Music for Doctoral Students: Trumpet  
MUSA 764N - Applied Music for Doctoral Students: Tuba

### **Ensembles Course – Credits: 3**

Complete 3 credits of advisor-approved ensemble (2 large, 1 chamber) coursework.

### **Recital Courses – Credits: 9**

MUS 798B - Recital

**Lecture-Recital Course – Credits: 3**

MUS 781 - Lecture-Recital

**Elective Courses – Credits: 5**

Complete 5 credits of advisor-approved elective coursework.

**Document Course – Credits: 2**

MUS 780 - Document

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 2 Requirements: Piano Track**

Total Credits Required: 60

Course Requirements

**Required Courses – Credits: 4**

MUS 773 - Research Seminar

MUS 719 - Teaching Music in Higher Education

**Solo Repertoire Course – Credits: 3**

MUS 726 - Survey of Solo Repertoire

**History/Literature Courses – Credits: 6**

Complete 6 credits from following list of courses:

MUS 529 - Interpretation: German Lied

MUS 530 - French Melodie

MUS 770A - Graduate History Seminar

MUS 770B - Beethoven

MUS 770C - Fin de Siecle

MUS 770D - Music of Wagner

MUS 770E - Music of Bach

MUS 770F - Music of Stravinsky

MUS 770G - History of Russian Music

MUS 785 - The Symphony

MUS 786A - The Operas of Mozart

MUS 786B - The Operas of Verdi

MUS 786C - Puccini and the Verismo

MUS 786D - American Opera Seminar

MUS 789 - The Art Song

MUS 792 - History of Opera

MUS 793 - Medieval and Renaissance Music

MUS 794 - Music of the Baroque Period

MUS 795 - Classical and Early Nineteenth-Century Music

MUS 796 - Music of the Romantic Period

MUS 797 - Music of the Twentieth Century

**Music Theory Courses – Credits: 6**

Complete 6 credits from following list of courses:

MUS 501 - Counterpoint

MUS 705 - Techniques of the Romantic Period

MUS 706 - Twentieth-Century Techniques

MUS 707 - Analysis in Relation to Performance

MUS 708 - Aspects of Musical Style

MUS 709X – Analysis of 20th and 21st Century Music

MUS 774 - Seminar in Music Theory

MUS 770 - Seminar: Special Topics

MUS 770 - Seminar: Special Topics

**Pedagogy Course – Credits: 3**

Complete three credits from the following list of courses:

MUS 720 - Instrumental Music Reading and Conducting Workshop

MUS 727A - Survey of Ensemble Repertoire-String

MUS 727B - Survey of Ensemble Repertoire-Woodwind

MUS 727C - Survey of Ensemble Repertoire-Brass

MUS 727D - Survey of Ensemble Repertoire-Percussion

MUS 727E - Survey of Ensemble Repertoire-Piano

MUS 727F - Survey of Ensemble Repertoire-Vocal

MUS 727G - Survey of Ensemble Repertoire-Band

MUS 728 - Percussion Literature and Pedagogy

MUS 746 - Master Class in Vocal Pedagogy

MUS 747 - Instrumental Music Pedagogy

MUS 747A - Instrumental Music Pedagogy-Piano

MUS 747B - Instrumental Music Pedagogy-Brass

MUS 747C - Instrumental Music Pedagogy-Woodwind

MUS 747D - Instrumental Music Pedagogy-String

MUS 747E - Instrumental Music Pedagogy-Guitar

MUS 747F - Instrumental Music Pedagogy-Band  
MUS 747G - Instrumental Music Pedagogy-  
Orchestra  
MUS 748 - Music Wellness: A Survival Guide for  
Teachers and Performers

### **Applied Lessons Courses – Credits: 16**

Complete 16 credits from the following courses:

MUSA 764I - Applied Music for Doctoral Students:  
Piano

### **Ensembles Course – Credits: 3**

Complete 3 credits of advisor-approved ensemble (2  
large, 1 chamber) coursework.

### **Recital Courses – Credits: 9**

MUS 798B - Recital

### **Lecture-Recital Course – Credits: 3**

MUS 781 - Lecture-Recital

### **Elective Courses – Credits: 5**

Complete 5 credits of advisor-approved elective  
coursework.

### **Document Course – Credits: 2**

MUS 780 - Document

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 3 Requirements: String Track**

Total Credits Required: 60

Course Requirements

### **Required Courses – Credits: 4**

MUS 773 - Research Seminar

MUS 719 - Teaching Music in Higher Education

### **History/Literature Courses – Credits: 9**

Complete 6 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
MUS 530 - French Melodie  
MUS 770A - Graduate History Seminar  
MUS 770B - Beethoven  
MUS 770C - Fin de Siecle  
MUS 770D - Music of Wagner  
MUS 770E - Music of Bach  
MUS 770F - Music of Stravinsky  
MUS 770G - History of Russian Music  
MUS 785 - The Symphony  
MUS 786A - The Operas of Mozart  
MUS 786B - The Operas of Verdi  
MUS 786C - Puccini and the Verismo  
MUS 786D - American Opera Seminar  
MUS 789 - The Art Song  
MUS 792 - History of Opera  
MUS 793 - Medieval and Renaissance Music  
MUS 794 - Music of the Baroque Period  
MUS 795 - Classical and Early Nineteenth-Century  
Music  
MUS 796 - Music of the Romantic Period  
MUS 797 - Music of the Twentieth Century

### **Music Theory Courses – Credits: 6**

Complete 6 credits from following list of courses:

MUS 501 - Counterpoint  
MUS 705 - Techniques of the Romantic Period  
MUS 706 - Twentieth-Century Techniques  
MUS 707 - Analysis in Relation to Performance  
MUS 708 - Aspects of Musical Style  
MUS 709X – Analysis of 20th and 21st Century  
Music  
MUS 774 - Seminar in Music Theory  
MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

### **Pedagogy Course – Credits: 3**

Complete three credits from the following list of  
courses:

MUS 720 - Instrumental Music Reading and  
Conducting Workshop  
MUS 727A - Survey of Ensemble Repertoire-String  
MUS 727B - Survey of Ensemble Repertoire-

Woodwind

MUS 727C - Survey of Ensemble Repertoire-Brass

MUS 727D - Survey of Ensemble Repertoire-  
Percussion

MUS 727E - Survey of Ensemble Repertoire-Piano

MUS 727F - Survey of Ensemble Repertoire-Vocal

MUS 727G - Survey of Ensemble Repertoire-Band

MUS 728 - Percussion Literature and Pedagogy

MUS 746 - Master Class in Vocal Pedagogy

MUS 747 - Instrumental Music Pedagogy

MUS 747A - Instrumental Music Pedagogy-Piano

MUS 747B - Instrumental Music Pedagogy-Brass

MUS 747C - Instrumental Music Pedagogy-

Woodwind

MUS 747D - Instrumental Music Pedagogy-String

MUS 747E - Instrumental Music Pedagogy-Guitar

MUS 747F - Instrumental Music Pedagogy-Band

MUS 747G - Instrumental Music Pedagogy-

Orchestra

MUS 748 - Music Wellness: A Survival Guide for  
Teachers and Performers

### **Applied Lessons Courses – Credits: 16**

Complete 16 credits from the following course  
corresponding to the student's primary instrument:

MUSA 764C - Applied Music for Doctoral Students:  
Cello

MUSA 764K - Applied Music for Doctoral Students:  
String Bass

MUSA 764O - Applied Music for Doctoral Students:  
Viola

MUSA 764P - Applied Music for Doctoral Students:  
Violin

MUSA 764R - Applied Music for Doctoral Students:  
Guitar

### **Ensembles Course – Credits: 3**

Complete 3 credits of advisor-approved ensemble (2  
large, 1 chamber) coursework.

### **Recital Courses – Credits: 9**

MUS 798B - Recital

### **Lecture-Recital Course – Credits: 3**

MUS 781 - Lecture-Recital

### **Elective Courses – Credits: 5**

Complete 5 credits of advisor-approved elective  
coursework.

### **Document Course – Credits: 2**

MUS 780 - Document

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 4 Requirements: Woodwind Track**

Total Credits Required: 60

Course Requirements

### **Required Courses – Credits: 4**

MUS 773 - Research Seminar

MUS 719 - Teaching Music in Higher Education

### **History/Literature Courses – Credits: 9**

Complete 6 credits from following list of courses:

MUS 529 - Interpretation: German Lied

MUS 530 - French Melodie

MUS 770A - Graduate History Seminar

MUS 770B - Beethoven

MUS 770C - Fin de Siecle

MUS 770D - Music of Wagner

MUS 770E - Music of Bach

MUS 770F - Music of Stravinsky

MUS 770G - History of Russian Music

MUS 785 - The Symphony

MUS 786A - The Operas of Mozart

MUS 786B - The Operas of Verdi

MUS 786C - Puccini and the Verismo

MUS 786D - American Opera Seminar

MUS 789 - The Art Song

MUS 792 - History of Opera

MUS 793 - Medieval and Renaissance Music

MUS 794 - Music of the Baroque Period

MUS 795 - Classical and Early Nineteenth-Century  
Music

MUS 796 - Music of the Romantic Period  
MUS 797 - Music of the Twentieth Century

**Music Theory Courses – Credits: 6**

Complete 6 credits from following list of courses:

MUS 501 - Counterpoint  
MUS 705 - Techniques of the Romantic Period  
MUS 706 - Twentieth-Century Techniques  
MUS 707 - Analysis in Relation to Performance  
MUS 708 - Aspects of Musical Style  
MUS 709X – Analysis of 20th and 21st Century Music  
MUS 774 - Seminar in Music Theory  
MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

**Pedagogy Course – Credits: 3**

Complete three credits from the following list of courses:

MUS 720 - Instrumental Music Reading and Conducting Workshop  
MUS 727A - Survey of Ensemble Repertoire-String  
MUS 727B - Survey of Ensemble Repertoire-Woodwind  
MUS 727C - Survey of Ensemble Repertoire-Brass  
MUS 727D - Survey of Ensemble Repertoire-Percussion  
MUS 727E - Survey of Ensemble Repertoire-Piano  
MUS 727F - Survey of Ensemble Repertoire-Vocal  
MUS 727G - Survey of Ensemble Repertoire-Band  
MUS 728 - Percussion Literature and Pedagogy  
MUS 746 - Master Class in Vocal Pedagogy  
MUS 747 - Instrumental Music Pedagogy  
MUS 747A - Instrumental Music Pedagogy-Piano  
MUS 747B - Instrumental Music Pedagogy-Brass  
MUS 747C - Instrumental Music Pedagogy-Woodwind  
MUS 747D - Instrumental Music Pedagogy-String  
MUS 747E - Instrumental Music Pedagogy-Guitar  
MUS 747F - Instrumental Music Pedagogy-Band  
MUS 747G - Instrumental Music Pedagogy-Orchestra  
MUS 748 - Music Wellness: A Survival Guide for Teachers and Performers

**Applied Lessons Courses – Credits: 16**

Complete 16 credits from the following course corresponding to the student's primary instrument:

MUSA 764B - Applied Music for the Doctoral Student: Bassoon  
MUSA 764D - Applied Music for the Doctoral Student: Clarinet  
MUSA 764E - Applied Music for the Doctoral Student: Flute  
MUSA 764G - Applied Music for the Doctoral Student: Oboe

**Ensembles Course – Credits: 3**

Complete 3 credits of advisor-approved ensemble (2 large, 1 chamber) coursework.

**Recital Courses – Credits: 9**

MUS 798B - Recital

**Lecture-Recital Course – Credits: 3**

MUS 781 - Lecture-Recital

**Elective Courses – Credits: 5**

Complete 5 credits of advisor-approved elective coursework.

**Document Course – Credits: 2**

MUS 780 - Document

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 5 Requirements: Conducting (Wind Band) Track**

Total Credits Required: 60  
Course Requirements

**Required Courses –Credits: 4**

MUS 773 - Research Seminar  
MUS 719 - Teaching Music in Higher Education

**History/Literature Courses – Credits: 9**

Complete 9 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
MUS 530 - French Melodie  
MUS 770A - Graduate History Seminar  
MUS 770B - Beethoven  
MUS 770C - Fin de Siecle  
MUS 770D - Music of Wagner  
MUS 770E - Music of Bach  
MUS 770F - Music of Stravinsky  
MUS 770G - History of Russian Music  
MUS 785 - The Symphony  
MUS 786A - The Operas of Mozart  
MUS 786B - The Operas of Verdi  
MUS 786C - Puccini and the Verismo  
MUS 786D - American Opera Seminar  
MUS 789 - The Art Song  
MUS 792 - History of Opera  
MUS 793 - Medieval and Renaissance Music  
MUS 794 - Music of the Baroque Period  
MUS 795 - Classical and Early Nineteenth-Century Music  
MUS 796 - Music of the Romantic Period  
MUS 797 - Music of the Twentieth Century

**Music Theory Courses – Credits: 6**

Complete 6 credits from following list of courses:

MUS 501 - Counterpoint  
MUS 705 - Techniques of the Romantic Period  
MUS 706 - Twentieth-Century Techniques  
MUS 707 - Analysis in Relation to Performance  
MUS 708 - Aspects of Musical Style  
MUS 709X – Analysis of 20th and 21st Century Music  
MUS 774 - Seminar in Music Theory  
MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

**Pedagogy Courses – Credits: 6**

MUS 720 - Instrumental Music Reading and Conducting Workshop  
MUS 747F - Instrumental Music Pedagogy-Band

**Applied Lessons Courses – Credits: 16**

Complete 16 credits from the following course:

MUSA 764AA - Applied Music for the Doctoral Student: Wind Band

**Ensembles Course – Credits: 2**

Complete 2 credits of advisor-approved ensemble coursework.

**Recital Courses – Credits: 9**

MUS 798B - Recital

**Lecture-Recital Course – Credits: 3**

MUS 781 - Lecture-Recital

**Elective Courses – Credits: 3**

Complete 3 credits of advisor-approved elective coursework.

**Document Course –Credits: 2**

MUS 780 - Document

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 6 Requirements: Conducting (Orchestra) Track (On Hold)**

Total Credits Required: 60

Course Requirements

**Required Courses –Credits: 4**

MUS 773 - Research Seminar  
MUS 719 - Teaching Music in Higher Education

**History/Literature Courses – Credits: 9**

Complete 9 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
MUS 530 - French Melodie  
MUS 770A - Graduate History Seminar  
MUS 770B - Beethoven

MUS 770C - Fin de Siecle  
MUS 770D - Music of Wagner  
MUS 770E - Music of Bach  
MUS 770F - Music of Stravinsky  
MUS 770G - History of Russian Music  
MUS 785 - The Symphony  
MUS 786A - The Operas of Mozart  
MUS 786B - The Operas of Verdi  
MUS 786C - Puccini and the Verismo  
MUS 786D - American Opera Seminar  
MUS 789 - The Art Song  
MUS 792 - History of Opera  
MUS 793 - Medieval and Renaissance Music  
MUS 794 - Music of the Baroque Period  
MUS 795 - Classical and Early Nineteenth-Century Music  
MUS 796 - Music of the Romantic Period  
MUS 797 - Music of the Twentieth Century

#### **Music Theory Courses – Credits: 6**

Complete 6 credits from following list of courses:

MUS 501 - Counterpoint  
MUS 705 - Techniques of the Romantic Period  
MUS 706 - Twentieth-Century Techniques  
MUS 707 - Analysis in Relation to Performance  
MUS 708 - Aspects of Musical Style  
MUS 709X – Analysis of 20th and 21st Century Music  
MUS 774 - Seminar in Music Theory  
MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

#### **Pedagogy Courses – Credits: 6**

MUS 720 - Instrumental Music Reading and Conducting Workshop  
MUS 722 - Instrumental Conducting Seminar

#### **Applied Lessons Courses – Credits: 16**

Complete 16 credits from the following:

MUSA 764Y - Applied Music for the Doctoral Students: Orchestra Conducting

#### **Ensembles Course – Credits: 2**

Complete 2 credits of advisor-approved ensemble coursework.

#### **Recital Courses – Credits: 9**

MUS 798B - Recital

#### **Lecture-Recital Course – Credits: 3**

MUS 781 - Lecture-Recital

#### **Elective Courses – Credits: 3**

Complete 3 credits of advisor-approved elective coursework.

#### **Document Course –Credits: 2**

MUS 780 - Document

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 7 Requirements: Percussion Track**

Total Credits Required: 60

Course Requirements

#### **Required Courses –Credits: 4**

MUS 773 - Research Seminar

MUS 719 - Teaching Music in Higher Education

#### **History/Literature Courses – Credits: 9**

Complete 9 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
MUS 530 - French Melodie  
MUS 770A - Graduate History Seminar  
MUS 770B - Beethoven  
MUS 770C - Fin de Siecle  
MUS 770D - Music of Wagner  
MUS 770E - Music of Bach  
MUS 770F - Music of Stravinsky  
MUS 770G - History of Russian Music  
MUS 785 - The Symphony  
MUS 786A - The Operas of Mozart  
MUS 786B - The Operas of Verdi  
MUS 786C - Puccini and the Verismo

MUS 786D - American Opera Seminar  
MUS 789 - The Art Song  
MUS 792 - History of Opera  
MUS 793 - Medieval and Renaissance Music  
MUS 794 - Music of the Baroque Period  
MUS 795 - Classical and Early Nineteenth-Century Music  
MUS 796 - Music of the Romantic Period  
MUS 797 - Music of the Twentieth Century

### **Music Theory Courses – Credits: 6**

Complete 6 credits from following list of courses:

MUS 501 - Counterpoint  
MUS 705 - Techniques of the Romantic Period  
MUS 706 - Twentieth-Century Techniques  
MUS 707 - Analysis in Relation to Performance  
MUS 708 - Aspects of Musical Style  
MUS 709X – Analysis of 20th and 21st Century Music  
MUS 774 - Seminar in Music Theory  
MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

### **Pedagogy Courses – Credits: 9**

MUS 726D - Survey of Solo Repertoire-Percussion  
MUS 727D - Survey of Ensemble Repertoire-Percussion  
MUS 728 - Percussion Literature and Pedagogy

### **Applied Lessons Courses – Credits: 16**

Complete 16 credits from the following course:

MUSA 764 - Applied Music for Doctoral Students

### **Ensembles Course – Credits: 2**

Complete 2 credits of advisor-approved ensemble coursework.

### **Recital Courses – Credits: 9**

MUS 798B - Recital

### **Lecture-Recital Course – Credits: 3**

MUS 781 - Lecture-Recital

### **Document Course – Credits: 2**

MUS 780 - Document

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 8 Requirements: Voice Track**

Total Credits Required: 60

Course Requirements

### **Required Courses – Credits: 4**

MUS 773 - Research Seminar  
MUS 719 - Teaching Music in Higher Education

### **History/Literature Courses – Credits: 9**

Complete 9 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
MUS 530 - French Melodie  
MUS 770A - Graduate History Seminar  
MUS 770B - Beethoven  
MUS 770C - Fin de Siecle  
MUS 770D - Music of Wagner  
MUS 770E - Music of Bach  
MUS 770F - Music of Stravinsky  
MUS 770G - History of Russian Music  
MUS 785 - The Symphony  
MUS 786A - The Operas of Mozart  
MUS 786B - The Operas of Verdi  
MUS 786C - Puccini and the Verismo  
MUS 786D - American Opera Seminar  
MUS 789 - The Art Song  
MUS 792 - History of Opera  
MUS 793 - Medieval and Renaissance Music  
MUS 794 - Music of the Baroque Period  
MUS 795 - Classical and Early Nineteenth-Century Music  
MUS 796 - Music of the Romantic Period  
MUS 797 - Music of the Twentieth Century

### **Music Theory Courses – Credits: 6**

Complete 6 credits from following list of courses:



MUS 501 - Counterpoint  
MUS 705 - Techniques of the Romantic Period  
MUS 706 - Twentieth-Century Techniques  
MUS 707 - Analysis in Relation to Performance  
MUS 708 - Aspects of Musical Style  
MUS 709X – Analysis of 20th and 21st Century Music  
MUS 774 - Seminar in Music Theory  
MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

### **Pedagogy Courses – Credits: 6**

Complete six credits from the following list of courses:

MUS 717 - Master Class in Singer's Diction  
MUS 718A - Graduate Seminar in Voice-German  
MUS 718B - Graduate Seminar in Voice-French  
MUS 718C - Graduate Seminar in Voice-Italian  
MUS 718D - Graduate Seminar in Voice-American Song  
MUS 727A - Survey of Ensemble Repertoire-String  
MUS 727B - Survey of Ensemble Repertoire-Woodwind  
MUS 727C - Survey of Ensemble Repertoire-Brass  
MUS 727D - Survey of Ensemble Repertoire-Percussion  
MUS 727E - Survey of Ensemble Repertoire-Piano  
MUS 727F - Survey of Ensemble Repertoire-Vocal  
MUS 727G - Survey of Ensemble Repertoire-Band  
MUS 746 - Master Class in Vocal Pedagogy  
MUS 748 - Music Wellness: A Survival Guide for Teachers and Performers

### **Applied Lessons Courses – Credits: 16**

Complete 16 credits from the following course:

MUSA 764Q - Applied Music for the Doctoral Students: Voice

### **Ensembles Course – Credits: 2**

Complete 2 credits of advisor-approved ensemble coursework.

### **Recital Courses – Credits: 9**

MUS 798B - Recital

### **Lecture-Recital Course – Credits: 3**

MUS 781 - Lecture-Recital

### **Elective Courses – Credits: 3**

Complete one of the following courses:

MUS 718A - Graduate Seminar in Voice-German  
MUS 718B - Graduate Seminar in Voice-French  
MUS 718C - Graduate Seminar in Voice-Italian

### **Document Course – Credits: 2**

MUS 780 - Document

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Degree Requirements**

1. The student must complete a minimum of 60 credits.
2. Throughout work for the degree, the student must maintain a minimum GPA of 3.00 with no course work receiving a grade of B- or below. If a student receives a grade of B- or below, the course must be retaken. If the student's cumulative GPA falls below 3.00, the student may be separated from the program.
3. The Department of Music reviews the academic performance of graduate students at the end of academic year and reviews the academic performance of graduate students on assistantships at the end of each semester. If the Department of Music determines that a student is not making satisfactory progress toward the degree, it will request that the Graduate Dean separate the student from the department or place the student on probation. The department will provide the student with the specific requirements, including deadlines, which must be completed for the student to be removed from probation.

4. In consultation with his/her advisor, a student will organize a thesis committee of at least four departmental members. In addition, a fifth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Advisors are assigned by the Graduate Coordinator and are usually the student's major teacher. New graduate students should schedule an appointment with their advisor before registering for classes to determine course of study and will be advised upon matriculation as to which, if any, areas need special attention. Advisors take an active role in assisting to correct any student deficiencies by suggesting appropriate course work. Meetings should continue on a regular basis to assure appropriate progress towards the degree.
6. Participation in large ensembles is required throughout the student's residency. Some areas may have more specific large and small ensemble requirements. Students should consult their advisor for more details.
7. Reading knowledge of at least one foreign language is required for the DMA: French, German, Spanish, or Italian. With permission of the Department of Music Graduate Committee, another language may be substituted. Students whose native language is not English may not use English or their native language to fulfill this requirement. This requirement must be fulfilled before the student schedules their qualifying exams. Students may fulfill the language requirement by doing one of the following:
  - a. Pass the Foreign Language Proficiency Exam in one of the approved languages.
    - i. The Foreign Language Proficiency Exam typically involves the translation of a 350 to 500-word text in a 90-minute period – the student may use a dictionary during the exam.
  - b. Complete two successive semesters of regular undergraduate foreign language courses while in residence for the DMA at UNLV in French, German, or Italian with a grade of B (3.0) or better in each course. Students may choose as a starting point the course that best suits their current level of competency.
    - i. Students interested in this option should first contact the Graduate Coordinator to schedule the exam. The exam content will be selected from a Departmental set of translation excerpts.
    - ii. Once complete, the exam is graded by a member of the Foreign Language Department, and the results are documented in completion of the DMA Foreign Language Evaluation form by the person overseeing the exam and should be sent to the Graduate Coordinator for the student's file.
    - iii. If the student does not succeed in passing the Foreign Language Proficiency Exam, they must fulfill the foreign language requirement by completing option b below.
    - iv. Complete two successive semesters of regular undergraduate foreign language courses while in residence for the DMA at UNLV in French, German, or Italian with a grade of B (3.0) or better in each course. Students may choose as a starting point the course that best suits their current level of competency.
      - i. Contact the Department of Music for a list of UNLV courses that may be taken to fulfill this requirement.
      - ii. Students must formally petition the Department of Music Graduate

Committee in advance if they wish to substitute a language for French, German, Spanish, or Italian.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her doctoral document by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## **Master of Music**

### **Plan Description**

The Master of Music degrees at UNLV conforms to the following qualifying prerequisites and guidelines for study set forth by the National Association of Schools of Music:

1. Demonstrate baccalaureate-level capabilities in basic music competencies.

Demonstrate sufficient knowledge and skill in English to pursue advanced studies.

### **Mission**

The mission of the Master of Music degree at UNLV is to prepare musicians and music educators for careers in performance and education.

The minimum number of credits required for the Master of Music degree varies with each major option.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

Learning outcomes for specific subplan tracks can be found below:

- Master of Music - Music Education; Concentration in Graduate Licensure
- Master of Music - Music Education; Concentration in Orff Schulwerk
- Master of Music - Music Education; Concentration in Traditional
- Master of Music - Performance; Concentration in Jazz
- Master of Music - Theory/Composition; Concentration in Classical
- Master of Music - Theory/Composition; Concentration in Jazz
- Master of Music; Concentration in Conducting
- Master of Music; Concentration in Multiple Woodwinds

- Master of Music; Concentration in Performance

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Students applying for admission to the Master of Music degree program must apply online through the Graduate College website. There are different deadlines for international students, and for students who wish to apply for assistantships, which are also found on the Graduate College website.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements . In addition to submitting an application and transcripts of all college-level work to the Graduate College, prospective students must present the following credentials:

1. An overall undergraduate GPA of at least 2.75 (or 3.00 in the last two years of undergraduate study).
2. An undergraduate GPA of at least 3.00 in music.

Prior to registration, all Department of Music graduate students must take placement examinations in music history, theory, and aural skills/sight-singing, regardless of their area of concentration. Passing scores on these exams, or passing grades in the appropriate history or theory review courses (B or above) are required before students may enroll in graduate level history and theory courses. Credit for review courses will not be applied towards the degree.

Prospective students must also present credentials to the Department of Music. Under the Program Information section of the online application, please be sure to list your specific concentration. The following credentials must be presented to the Department of Music:

#### *Performance Tracks*

1. Two confidential letters of recommendation from former instructors attesting to the

student's ability to complete graduate work at an acceptable level.

2. A 500-word essay defining career goals and explaining how graduate studies in music will advance the applicant toward these goals.
3. A successful on-campus performance audition.
4. All auditions must be presented by April 15 for fall semester admission and by October 15 for spring semester admission. Audition length, requirements, and contact information vary by area. Please consult the area coordinator for further information.

#### *Theory/Composition Tracks*

1. Two confidential letters of recommendation from former instructors attesting to the student's ability to complete graduate work at an acceptable level.
2. A 500-word essay defining career goals and explaining how graduate studies in music will advance the applicant toward these goals.
3. A portfolio of compositions including at least one work from three of the following categories: a) orchestra, band or chorus; b) solo instrument and piano or for solo piano; c) string quartet, brass quintet, woodwind quintet, or other small ensemble; d) set of songs for solo voice and piano; e) original composition scored for jazz ensemble. Additional works may be included.
4. All auditions must be presented by April 15 for fall semester admission and by October 15 for spring semester admission. Audition length, requirements, and contact information vary by area. Please consult the area coordinator for further information.

#### *Music Education Tracks*

1. An undergraduate degree in Music Education or the equivalent is required for admission to the program.
2. Passing PPST I scores for Nevada found at [www.ets.org](http://www.ets.org).
3. Two confidential letters of recommendation from former instructors attesting to the

student's ability to complete graduate work at an acceptable level.

4. A 500-word essay on the applicant's philosophy of music education.
5. An undergraduate degree in Music Education or the equivalent is required for admission to the program.
6. Provide portfolio evidence of two years of successful music teaching experience in the public school. This evidence may include, but is not limited to:
  1. A current resume
  2. A copy of your teaching credential
  3. Representative lesson plans for two classes
  4. Audio and/or video of your students' learning or performing.
  5. Programs and other materials demonstrating programs you have given in the past two years
7. All auditions must be presented by April 15 for fall semester admission and by October 15 for spring semester admission. Audition length, requirements, and contact information vary by area. Please consult the area coordinator for further information.

#### *Conducting Tracks*

1. Two confidential letters of recommendation from former instructors attesting to the student's ability to complete graduate work at an acceptable level.
2. A 500-word essay defining career goals and explaining how graduate studies in music will advance the applicant toward these goals.
3. A videotape or DVD of a rehearsal and performance under the applicant's direction.
4. An on-campus conducting audition.
5. All auditions must be presented by April 15 for fall semester admission and by October 15 for spring semester admission. Audition length, requirements, and contact information vary by area. Please consult the area coordinator for further information.

#### *Graduate Licensure Tracks*

The Music Graduate Licensure Program is a graduate program offered by the Department of Music leading

to an elementary or secondary teaching license and a Master of Music (M.M.).

Students are not admitted during the summer; however, potential candidates may enroll in select courses, as non-admitted graduate students, while awaiting admission to the program. Students should apply for admission to the Graduate College. Once accepted to the Graduate Licensure Program, students should complete the course requirement worksheets they receive and contact their advisors to schedule initial appointments.

1. Students must have an earned Bachelor's degree with overall GPA of 2.75 or above in the Comprehensive Subject Area (Vocal/General or Instrumental).
2. Content coursework related to general music core for music majors that mirrors the music education majors must be on transcript (music theory, music history, conducting, piano, private instruction and ensembles.)
3. Passing scores in reading, writing, and mathematics on the Praxis I Pre-Professional Skills Test examination.
4. Passing scores on the Music Theory and Music History entrance examinations.
5. Passing scores on the Teacher Licensure Examinations for Nevada School Law, Nevada Constitution and U.S. Constitution or related coursework.
6. Documentation of immunizations with UNLV Admissions and Records.

Field-based experiences (practicum and student teaching) require fingerprinting in compliance with the Clark County School District (CCSD) policy.

#### **Music History Placement Examination**

The examination is an assessment of accumulated knowledge. Students may wish to prepare, however, by reviewing the facts and concepts in J. Peter Burkholder, Donald J. Grout, and Claude V. Palisca, *A History of Western Music*, 7th edition (New York: W.W. Norton, 2006), the volumes of the Prentice Hall History of Music series, or similar texts. Students who show deficiencies in music history will be required to register for MUS 603 - Graduate Music

## History Review

The examination is given prior to the first day of instruction for the Fall semester. The exact date, time, and location may be found on the Department of Music website: <http://music.unlv.edu/home.shtml>

Students must take the exam at the designated time; no make-up examinations will be given. Students who fail to take the exam at the scheduled time must complete MUS 603 before enrolling in any other music history course. This course is offered in the Fall semesters only.

For more specific details concerning the placement exam, please consult the Music History Handbook, available on the Music Department website: <http://music.unlv.edu/home.shtml> or contact Dr. Anthony Barone (702) 895-5953, ([anthony.barone@unlv.edu](mailto:anthony.barone@unlv.edu)).

Graduate Music Theory and Aural Skills/Sight-singing Placement Examination A sample graduate theory placement exam may be found on the Department of Music's website: <http://music.unlv.edu/home.shtml>  
The Graduate Aural Skills/Sight-singing Placement Examination consists of:

1. Two-voice dictation
2. Three-voice dictation
3. Harmonic dictation
4. Two-part rhythmic dictation

Sight-singing of a melody in any of the modern clefs (treble, alto, tenor, bass). A single melody may contain clef changes.

Students who show deficiencies in music theory and/or aural skills/sight-singing will be required to register for MUS 604 - Graduate Theory Review and/or MUS 602 - Graduate Ear Training Review. The Graduate Music Theory and Aural Skills/Sight-singing Placement Examination is given prior to the first day of instruction for the Fall semester and the Spring semester. The exact date, time, and location may be found on the Department of Music's website: <http://music.unlv.edu/home.shtml>

Students must take the exam at the designated time; no make-up examinations will be given. Students

who fail to take the exams at the scheduled time must complete MUS 604 and MUS 602 before enrolling in any other music theory course.

For more specific details concerning the placement exam, please contact the Department of Music Office or the Graduate Coordinator (702) 895-3332.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

## Plan Requirements

*See Subplan Requirements below.*

### Subplan 1 Requirements: Performance - Applied Major Track

Total Credits Required: 30

Course Requirements

#### Required Course – Credits: 3

MUS 690 - Bibliography

#### Music History Courses – Credits: 6

Complete 6 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
MUS 530 - French Melodie  
MUS 770A - Graduate History Seminar  
MUS 770B - Beethoven  
MUS 770C - Fin de Siecle  
MUS 770D - Music of Wagner  
MUS 770E - Music of Bach  
MUS 770F - Music of Stravinsky  
MUS 770G - History of Russian Music  
MUS 785 - The Symphony  
MUS 786A - The Operas of Mozart  
MUS 786B - The Operas of Verdi  
MUS 786C - Puccini and the Verismo  
MUS 786D - American Opera Seminar  
MUS 789 - The Art Song  
MUS 792 - History of Opera  
MUS 793 - Medieval and Renaissance Music

MUS 794 - Music of the Baroque Period  
MUS 795 - Classical and Early Nineteenth-Century Music  
MUS 796 - Music of the Romantic Period  
MUS 797 - Music of the Twentieth Century

### **Music Theory Course – Credits: 3**

Complete 3 credits from following list of courses:

MUS 501 - Counterpoint  
MUS 705 - Techniques of the Romantic Period  
MUS 706 - Twentieth-Century Techniques  
MUS 707 - Analysis in Relation to Performance  
MUS 708 - Aspects of Musical Style  
MUS 709X – Analysis of 20th and 21st Century Music  
MUS 774 - Seminar in Music Theory  
MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

### **Pedagogy and Literature Course – Credits: 3**

Complete one of the following advisor-approved courses:

MUS 728 - Percussion Literature and Pedagogy  
MUS 746 - Master Class in Vocal Pedagogy  
MUS 747 - Instrumental Music Pedagogy  
MUS 748 - Music Wellness: A Survival Guide for Teachers and Performers

### **Applied Music Courses – Credits: 8**

MUSA 661 - Applied Music for Master's Students

### **Ensemble Course – Credits: 2**

Complete 2 credits of advisor-approved ensemble coursework.

### **Recital Course – Credits: 2**

MUS 698 - Recital-Master's Level

### **Elective Course – Credits: 3**

Complete 3 credits of advisor-approved elective coursework.

Degree Requirements

1. Successful completion of a minimum of 30 credits.
2. No more than eight hours of 500-level course work may be applied to the candidate's degree program.
3. All graduate students in music must maintain a minimum cumulative grade point average (GPA) of 3.00 in all degree-required courses. Only courses for which the student earns a final grade of "A", "A-", "B+", "B", or "S" may be applied to the graduate degree. A graduate student whose cumulative GPA falls below 3.0 (B) in a given term will be placed on probation for the following term. If a 3.0 cumulative GPA is not attained by the end of the probationary term, the student will either be granted a final opportunity to raise her/his GPA or may be dismissed from the program.
4. Successful completion of MUS 690 - Bibliography, with a minimum grade of B, is a pre-requisite for all graduate-level music history classes.
5. Students must participate in one major ensemble and one chamber ensemble.
6. The Department of Music reviews the academic performance of graduate students at the end of each academic year and reviews the academic performance of graduate students on assistantships at the end of each semester.
7. If the department determines that a student is not making satisfactory progress towards the degree, it will request that the Graduate Dean separate the student from the department or place the student on probation. A student whose cumulative GPA falls below 3.0 for three successive semesters will be automatically dismissed from the program.
8. All candidates for the Master of Music degree in Applied Music are required to take written and oral comprehensive examinations.
  - a. The Master of Music comprehensive examinations consist of a written examination, and an oral examination.

- b. The comprehensive exams are taken during the term in which the student intends to graduate.
- c. For more specific information, please consult your advisor or the Department of Music Graduate Handbook.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 2 Requirements: Performance - Accompanying Piano Track**

Total Credits Required: 30

#### Course Requirements

#### **Required Course – Credits: 3**

MUS 690 - Bibliography

#### **Music History Courses – Credits: 6**

Complete 6 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
 MUS 530 - French Melodie  
 MUS 770A - Graduate History Seminar  
 MUS 770B - Beethoven  
 MUS 770C - Fin de Siecle  
 MUS 770D - Music of Wagner  
 MUS 770E - Music of Bach  
 MUS 770F - Music of Stravinsky  
 MUS 770G - History of Russian Music  
 MUS 785 - The Symphony  
 MUS 786A - The Operas of Mozart  
 MUS 786B - The Operas of Verdi  
 MUS 786C - Puccini and the Verismo  
 MUS 786D - American Opera Seminar  
 MUS 789 - The Art Song  
 MUS 792 - History of Opera  
 MUS 793 - Medieval and Renaissance Music  
 MUS 794 - Music of the Baroque Period  
 MUS 795 - Classical and Early Nineteenth-Century Music  
 MUS 796 - Music of the Romantic Period  
 MUS 797 - Music of the Twentieth Century

#### **Music Theory Course – Credits: 3**

Complete 3 credits from following list of courses:

MUS 501 - Counterpoint  
 MUS 705 - Techniques of the Romantic Period  
 MUS 706 - Twentieth-Century Techniques  
 MUS 707 - Analysis in Relation to Performance  
 MUS 708 - Aspects of Musical Style  
 MUS 709X – Analysis of 20th and 21st Century Music  
 MUS 774 - Seminar in Music Theory  
 MUS 770 - Techniques of the Classical Era  
 MUS 770 - Techniques of the Baroque Era

#### **Pedagogy and Literature Course – Credits: 3**

Complete one of the following of advisor-approved courses:

MUS 728 - Percussion Literature and Pedagogy  
 MUS 746 - Master Class in Vocal Pedagogy  
 MUS 747 - Instrumental Music Pedagogy  
 MUS 748 - Music Wellness: A Survival Guide for Teachers and Performers

#### **Applied Music Courses – Credits: 8**

MUSA 661 - Applied Music for Master's Students

#### **Ensemble Course – Credits: 2**

Complete 2 credits of advisor-approved ensemble coursework.

#### **Accompanying Courses –Credits: 2**

MUSE 572 - Accompanying

#### **Elective Course – Credits: 3**

Complete 3 credits of advisor-approved elective coursework.

#### Degree Requirements

1. Successful completion of a minimum of 30 credits.
2. No more than eight hours of 500-level course work may be applied to the candidate's degree program.
3. All graduate students in music must maintain a minimum cumulative grade point average (GPA) of 3.00 in all degree-required



courses. Only courses for which the student earns a final grade of "A", "A-", "B+", "B", or "S" may be applied to the graduate degree. A graduate student whose cumulative GPA falls below 3.0 (B) in a given term will be placed on probation for the following term. If a 3.0 cumulative GPA is not attained by the end of the probationary term, the student will either be granted a final opportunity to raise her/his GPA or may be dismissed from the program.

4. Successful completion of MUS 690 - Bibliography, with a minimum grade of B, is a pre-requisite for all graduate-level music history classes.
5. Students must participate in one major ensemble and one chamber ensemble.
6. MUSA 661 includes two recitals, one with vocalists, and one with instrumentalists.
7. The Department of Music reviews the academic performance of graduate students at the end of each academic year and reviews the academic performance of graduate students on assistantships at the end of each semester.
8. If the department determines that a student is not making satisfactory progress towards the degree, it will request that the Graduate Dean separate the student from the department or place the student on probation. A student whose cumulative GPA falls below 3.0 for three successive semesters will be automatically dismissed from the program.
9. All candidates are required to take written and oral comprehensive examinations.
  - a. The Master of Music comprehensive examinations consist of a written examination, and an oral examination.
  - b. The comprehensive exams are taken during the term in which the student intends to graduate.
  - c. For more specific information, please consult your advisor or the Department of Music Graduate Handbook.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 3 Requirements: Performance - Multiple Woodwind Track**

Total Credits Required: 38

Course Requirements

#### **Required Course – Credits: 3**

MUS 690 - Bibliography

#### **Music History Courses – Credits: 3**

Complete 3 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
 MUS 530 - French Melodie  
 MUS 770A - Graduate History Seminar  
 MUS 770B - Beethoven  
 MUS 770C - Fin de Siecle  
 MUS 770D - Music of Wagner  
 MUS 770E - Music of Bach  
 MUS 770F - Music of Stravinsky  
 MUS 770G - History of Russian Music  
 MUS 785 - The Symphony  
 MUS 786A - The Operas of Mozart  
 MUS 786B - The Operas of Verdi  
 MUS 786C - Puccini and the Verismo  
 MUS 786D - American Opera Seminar  
 MUS 789 - The Art Song  
 MUS 792 - History of Opera  
 MUS 793 - Medieval and Renaissance Music  
 MUS 794 - Music of the Baroque Period  
 MUS 795 - Classical and Early Nineteenth-Century Music  
 MUS 796 - Music of the Romantic Period  
 MUS 797 - Music of the Twentieth Century

#### **Music Theory Course – Credits: 3**

Complete 3 credits from following list of courses:

MUS 501 - Counterpoint  
 MUS 705 - Techniques of the Romantic Period  
 MUS 706 - Twentieth-Century Techniques  
 MUS 707 - Analysis in Relation to Performance  
 MUS 708 - Aspects of Musical Style  
 MUS 709X – Analysis of 20th and 21st Century Music

MUS 774 - Seminar in Music Theory  
MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

### **Pedagogy and Literature Course – Credits: 6**

Complete one of the following of advisor-approved courses:

MUS 728 - Percussion Literature and Pedagogy  
MUS 746 - Master Class in Vocal Pedagogy  
MUS 747 - Instrumental Music Pedagogy  
MUS 748 - Music Wellness: A Survival Guide for Teachers and Performers

### **Applied Music Courses – Credits: 8**

MUSA 661 - Applied Music for Master's Students

### **Secondary Applied Music Courses – Credits: 8**

MUSA 661 - Applied Music for Master's Students

### **Ensemble Course – Credits: 2**

Complete 2 credits of advisor-approved ensemble coursework.

### **Recital Course – Credits: 2**

MUS 698 - Recital-Master's Level

### **Elective Course – Credits: 3**

Complete 3 credits of advisor-approved elective coursework.

### **Degree Requirements**

1. Successful completion of a minimum of 38 credits.
2. No more than eight hours of 500-level course work may be applied to the candidate's degree program.
3. All graduate students in music must maintain a minimum cumulative grade point average (GPA) of 3.00 in all degree-required courses. Only courses for which the student earns a final grade of "A", "A-", "B+", "B", or "S" may be applied to the graduate degree. A graduate student whose cumulative GPA falls below 3.0 (B) in a

given term will be placed on probation for the following term. If a 3.0 cumulative GPA is not attained by the end of the probationary term, the student will either be granted a final opportunity to raise her/his GPA or may be dismissed from the program.

4. Successful completion of MUS 690 - Bibliography, with a minimum grade of B, is a pre-requisite for all graduate-level music history classes.
5. Students must participate in one major ensemble and one chamber ensemble.
6. Secondary Instruments are to be selected based on the entrance audition in consultation with the advisor. Requirements for each secondary instrument may be satisfied by examination at the discretion of the department. Equivalent credits (4) shall be taken on another woodwind instrument or as an elective.
7. The Department of Music reviews the academic performance of graduate students at the end of each academic year and reviews the academic performance of graduate students on assistantships at the end of each semester.
8. If the department determines that a student is not making satisfactory progress towards the degree, it will request that the Graduate Dean separate the student from the department or place the student on probation. A student whose cumulative GPA falls below 3.0 for three successive semesters will be automatically dismissed from the program.
9. All candidates are required to take written and oral comprehensive examinations.
  - a. The Master of Music comprehensive examinations consist of a written examination, and an oral examination.
  - b. The comprehensive exams are taken during the term in which the student intends to graduate.
  - c. For more specific information, please consult your advisor or the Department of Music Graduate Handbook.

### **Graduation Requirements**

*See Plan Graduation Requirements below.*

**Subplan 4 Requirements: Performance - Jazz Performance Track**

Total Credits Required: 30

Course Requirements

**Required Course – Credits: 3**

MUS 690 - Bibliography

**Jazz History Course – Credits: 3**

MUS 783 - Jazz History Seminar

**Jazz Theory Course – Credits: 3**

MUS 609 - Jazz Theory and Composition

**Jazz Pedagogy Course – Credits: 3**

MUS 613 - Jazz Pedagogy

**Jazz Keyboard Course – Credits: 3**

MUS 611 - Jazz Keyboard and Arranging

**Applied Lessons Courses – Credits: 8**

MUSA 661 - Applied Music for Master's Students

**Ensembles Courses – Credits: 2**

Complete 2 credits of advisor-approved ensemble coursework.

**Recital Course – Credits: 2**

MUS 698 - Recital-Master's Level

**Music History Elective Course – Credits: 3**

Complete 3 credits from following list of courses:

MUS 529 - Interpretation: German Lied

MUS 530 - French Melodie

MUS 770A - Graduate History Seminar

MUS 770B - Beethoven

MUS 770C - Fin de Siecle

MUS 770D - Music of Wagner

MUS 770E - Music of Bach

MUS 770F - Music of Stravinsky

MUS 770G - History of Russian Music

MUS 785 - The Symphony

MUS 786A - The Operas of Mozart

MUS 786B - The Operas of Verdi

MUS 786C - Puccini and the Verismo

MUS 786D - American Opera Seminar

MUS 789 - The Art Song

MUS 792 - History of Opera

MUS 793 - Medieval and Renaissance Music

MUS 794 - Music of the Baroque Period

MUS 795 - Classical and Early Nineteenth-Century Music

MUS 796 - Music of the Romantic Period

MUS 797 - Music of the Twentieth Century

Degree Requirements

1. Successful completion of a minimum of 30 credits.
2. No more than eight hours of 500-level course work may be applied to the candidate's degree program.
3. All graduate students in music must maintain a minimum cumulative grade point average (GPA) of 3.00 in all degree-required courses. Only courses for which the student earns a final grade of "A", "A-", "B+", "B", or "S" may be applied to the graduate degree. A graduate student whose cumulative GPA falls below 3.0 (B) in a given term will be placed on probation for the following term. If a 3.0 cumulative GPA is not attained by the end of the probationary term, the student will either be granted a final opportunity to raise her/his GPA or may be dismissed from the program.
4. Successful completion of MUS 690 - Bibliography, with a minimum grade of B, is a pre-requisite for all graduate-level music history classes.
5. Students must participate in one major ensemble and one chamber ensemble.
6. The Department of Music reviews the academic performance of graduate students at the end of each academic year and reviews the academic performance of graduate students on assistantships at the end of each semester.

7. If the department determines that a student is not making satisfactory progress towards the degree, it will request that the Graduate Dean separate the student from the department or place the student on probation. A student whose cumulative GPA falls below 3.0 for three successive semesters will be automatically dismissed from the program.
8. All candidates are required to take written and oral comprehensive examinations.
  - a. The Master of Music comprehensive examinations consist of a written examination, and an oral examination.
  - b. The comprehensive exams are taken during the term in which the student intends to graduate.
  - c. For more specific information, please consult your advisor or the Department of Music Graduate Handbook.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 5 Requirements: Theory/Composition Track**

Total Credits Required: 32

#### Course Requirements

#### **Required Course – Credits: 3**

MUS 690 - Bibliography

#### **Music History Courses – Credits: 6**

Complete 6 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
 MUS 530 - French Melodie  
 MUS 770A - Graduate History Seminar  
 MUS 770B - Beethoven  
 MUS 770C - Fin de Siecle  
 MUS 770D - Music of Wagner  
 MUS 770E - Music of Bach  
 MUS 770F - Music of Stravinsky  
 MUS 770G - History of Russian Music

MUS 785 - The Symphony  
 MUS 786A - The Operas of Mozart  
 MUS 786B - The Operas of Verdi  
 MUS 786C - Puccini and the Verismo  
 MUS 786D - American Opera Seminar  
 MUS 789 - The Art Song  
 MUS 792 - History of Opera  
 MUS 793 - Medieval and Renaissance Music  
 MUS 794 - Music of the Baroque Period  
 MUS 795 - Classical and Early Nineteenth-Century Music  
 MUS 796 - Music of the Romantic Period  
 MUS 797 - Music of the Twentieth Century

#### **Music Theory Courses – Credits: 6**

Complete 6 credits from following list of courses:

MUS 501 - Counterpoint  
 MUS 705 - Techniques of the Romantic Period  
 MUS 706 - Twentieth-Century Techniques  
 MUS 707 - Analysis in Relation to Performance  
 MUS 708 - Aspects of Musical Style  
 MUS 709X – Analysis of 20th and 21st Century Music  
 MUS 774 - Seminar in Music Theory  
 MUS 770 - Techniques of the Classical Era  
 MUS 770 - Techniques of the Baroque Era

#### **Applied Music Courses – Credits: 4**

MUSA 661 - Applied Music for Master's Students

#### **Composition Courses – Credits: 8**

Complete 8 credits of advisor-approved ensemble coursework.

#### **Recital Course – Credits: 2**

MUS 698 - Recital-Master's Level

#### **Elective Course – Credits: 3**

Complete 3 credits of advisor-approved elective coursework.

#### Degree Requirements

1. Successful completion of a minimum of 32 credits.

2. No more than eight hours of 500-level course work may be applied to the candidate's degree program.
3. All graduate students in music must maintain a minimum cumulative grade point average (GPA) of 3.00 in all degree-required courses. Only courses for which the student earns a final grade of "A", "A-", "B+", "B", or "S" may be applied to the graduate degree. A graduate student whose cumulative GPA falls below 3.0 (B) in a given term will be placed on probation for the following term. If a 3.0 cumulative GPA is not attained by the end of the probationary term, the student will either be granted a final opportunity to raise her/his GPA or may be dismissed from the program.
4. Successful completion of MUS 690 - Bibliography, with a minimum grade of B, is a pre-requisite for all graduate-level music history classes.
5. The Department of Music reviews the academic performance of graduate students at the end of each academic year and reviews the academic performance of graduate students on assistantships at the end of each semester.
6. If the department determines that a student is not making satisfactory progress towards the degree, it will request that the Graduate Dean separate the student from the department or place the student on probation. A student whose cumulative GPA falls below 3.0 for three successive semesters will be automatically dismissed from the program.
7. All candidates for the Master of Music degree in Theory/Composition are required to take written and oral comprehensive examinations.
  - a. The Master of Music comprehensive examinations consist of a written examination, and an oral examination.
  - b. The comprehensive exams are taken during the term in which the student intends to graduate.
  - c. For more specific information, please consult your advisor or the

Department of Music Graduate Handbook.

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 6 Requirements: Jazz Theory/Composition Track**

Total Credits Required: 32

Course Requirements

**Required Course – Credits: 3**

MUS 690 - Bibliography

**Jazz History Course – Credits: 3**

MUS 603 - Graduate Music History Review

**Jazz Theory Course – Credits: 3**

MUS 609 - Jazz Theory and Composition

**Jazz Pedagogy Course – Credits: 3**

MUS 613 - Jazz Pedagogy

**Jazz Keyboard Course – Credits: 3**

MUS 611 - Jazz Keyboard and Arranging

**Applied Lessons Courses – Credits: 4**

MUSA 667 - Applied Music for Master's Students, Non-Performance Majors

**Applied Music Course – Credits: 8**

Complete 8 credits of the following course.

MUSA 661V - Applied Music for Master's Students: Private Theory: Jazz

**Recital Course – Credits: 2**

MUS 698 - Recital-Master's Level

**Elective Course – Credits: 3**

Complete 3 credits of music history electives from the following list of courses:

MUS 529 - Interpretation: German Lied  
 MUS 530 - French Melodie  
 MUS 770A - Graduate History Seminar  
 MUS 770B - Beethoven  
 MUS 770C - Fin de Siecle  
 MUS 770D - Music of Wagner  
 MUS 770E - Music of Bach  
 MUS 770F - Music of Stravinsky  
 MUS 770G - History of Russian Music  
 MUS 785 - The Symphony  
 MUS 786A - The Operas of Mozart  
 MUS 786B - The Operas of Verdi  
 MUS 786C - Puccini and the Verismo  
 MUS 786D - American Opera Seminar  
 MUS 789 - The Art Song  
 MUS 792 - History of Opera  
 MUS 793 - Medieval and Renaissance Music  
 MUS 794 - Music of the Baroque Period  
 MUS 795 - Classical and Early Nineteenth-Century Music  
 MUS 796 - Music of the Romantic Period  
 MUS 797 - Music of the Twentieth Century

#### Degree Requirements

1. Successful completion of a minimum of 32 credit hours.
2. No more than eight hours of 500-level course work may be applied to the candidate's degree program.
3. All graduate students in music must maintain a minimum cumulative grade point average (GPA) of 3.00 in all degree-required courses. Only courses for which the student earns a final grade of "A", "A-", "B+", "B", or "S" may be applied to the graduate degree. A graduate student whose cumulative GPA falls below 3.0 (B) in a given term will be placed on probation for the following term. If a 3.0 cumulative GPA is not attained by the end of the probationary term, the student will either be granted a final opportunity to raise her/his GPA or may be dismissed from the program.
4. Successful completion of MUS 690 - Bibliography, with a minimum grade of B, is a pre-requisite for all graduate-level music history classes.
5. The Department of Music reviews the academic performance of graduate students at the end of each academic year and reviews the academic performance of graduate students on assistantships at the end of each semester.
6. If the department determines that a student is not making satisfactory progress towards the degree, it will request that the Graduate Dean separate the student from the department or place the student on probation. A student whose cumulative GPA falls below 3.0 for three successive semesters will be automatically dismissed from the program.
7. All candidates for the Master of Music degree in Theory/Composition are required to take written and oral comprehensive examinations.
  - a. The Master of Music comprehensive examinations consist of a written examination, and an oral examination.
  - b. The comprehensive exams are taken during the term in which the student intends to graduate.
  - c. For more specific information, please consult your advisor or the Department of Music Graduate Handbook.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 7 Requirements: Music Education Track**

Total Credits Required: 33

Course Requirements

#### **Required Course – Credits: 3**

MUS 690 - Bibliography

#### **Music History Course – Credits: 6**

Complete 6 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
 MUS 530 - French Melodie

MUS 770A - Graduate History Seminar  
 MUS 770B - Beethoven  
 MUS 770C - Fin de Siecle  
 MUS 770D - Music of Wagner  
 MUS 770E - Music of Bach  
 MUS 770F - Music of Stravinsky  
 MUS 770G - History of Russian Music  
 MUS 785 - The Symphony  
 MUS 786A - The Operas of Mozart  
 MUS 786B - The Operas of Verdi  
 MUS 786C - Puccini and the Verismo  
 MUS 786D - American Opera Seminar  
 MUS 789 - The Art Song  
 MUS 792 - History of Opera  
 MUS 793 - Medieval and Renaissance Music  
 MUS 794 - Music of the Baroque Period  
 MUS 795 - Classical and Early Nineteenth-Century Music  
 MUS 796 - Music of the Romantic Period  
 MUS 797 - Music of the Twentieth Century

**Music Theory Course – Credits: 3**

Complete 3 credits from following list of courses:

MUS 501 - Counterpoint  
 MUS 705 - Techniques of the Romantic Period  
 MUS 706 - Twentieth-Century Techniques  
 MUS 707 - Analysis in Relation to Performance  
 MUS 708 - Aspects of Musical Style  
 MUS 709X – Analysis of 20th and 21st Century Music  
 MUS 774 - Seminar in Music Theory  
 MUS 770 - Techniques of the Classical Era  
 MUS 770 - Techniques of the Baroque Era

**Music Education Courses – Credits: 9**

MUS 640 - Foundations and Principles of Music Education  
 MUS 641 - Studies in Music Curricula  
 MUS 671 - Research in Music Education

**Music Education Elective Course – Credits: 3**

Complete 3 credits from the following list of courses:

MUS 642 - Orff Schulwerk Teacher Training Certification Level I  
 MUS 643 - Orff Schulwerk Teacher Training Certification Level II

MUS 644 - Orff Schulwerk Teacher Training Certification Level III  
 MUS 650 - Educational Measurement in Music  
 MUS 653 - Teaching Non-Performance Music in Secondary School  
 MUS 653 - Teaching Non-Performance Music in Secondary School  
 MUS 655 - Teaching Music and Exceptional Learners

**Elective Course – Credits: 9**

Complete 9 credits of advisor-approved applied music or conducting electives.

**Degree Requirements**

1. Successful completion of a minimum of 33 credits.
2. No more than eight hours of 500-level course work may be applied to the candidate's degree program.
3. All graduate students in music must maintain a minimum cumulative grade point average (GPA) of 3.00 in all degree-required courses. Only courses for which the student earns a final grade of "A", "A-", "B+", "B", or "S" may be applied to the graduate degree. A graduate student whose cumulative GPA falls below 3.0 (B) in a given term will be placed on probation for the following term. If a 3.0 cumulative GPA is not attained by the end of the probationary term, the student will either be granted a final opportunity to raise her/his GPA or may be dismissed from the program.
4. Successful completion of MUS 690 - Bibliography, with a minimum grade of B, is a pre-requisite for all graduate-level music history classes.
5. The maximum number of workshop credits is three.
6. The Department of Music reviews the academic performance of graduate students at the end of each academic year and reviews the academic performance of graduate students on assistantships at the end of each semester.
7. If the department determines that a student is not making satisfactory progress towards

the degree, it will request that the Graduate Dean separate the student from the department or place the student on probation. A student whose cumulative GPA falls below 3.0 for three successive semesters will be automatically dismissed from the program.

8. Candidates for the Master of Music degree in Music Education are required to take a written comprehensive examination and may also be required to take an oral examination.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 8 Requirements: Music Education - Orff Schulwerk Track**

Total Credits Required: 33

#### Course Requirements

#### **Required Course – Credits: 3**

MUS 690 - Bibliography

#### **Music History Course – Credits: 6**

Complete 6 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
MUS 530 - French Melodie  
MUS 770A - Graduate History Seminar  
MUS 770B - Beethoven  
MUS 770C - Fin de Siecle  
MUS 770D - Music of Wagner  
MUS 770E - Music of Bach  
MUS 770F - Music of Stravinsky  
MUS 770G - History of Russian Music  
MUS 785 - The Symphony  
MUS 786A - The Operas of Mozart  
MUS 786B - The Operas of Verdi  
MUS 786C - Puccini and the Verismo  
MUS 786D - American Opera Seminar  
MUS 789 - The Art Song  
MUS 792 - History of Opera  
MUS 793 - Medieval and Renaissance Music  
MUS 794 - Music of the Baroque Period  
MUS 795 - Classical and Early Nineteenth-Century Music

MUS 796 - Music of the Romantic Period  
MUS 797 - Music of the Twentieth Century

#### **Music Theory Course – Credits: 3**

Complete 3 credits from following list of courses:

MUS 501 - Counterpoint  
MUS 705 - Techniques of the Romantic Period  
MUS 706 - Twentieth-Century Techniques  
MUS 707 - Analysis in Relation to Performance  
MUS 708 - Aspects of Musical Style  
MUS 709X – Analysis of 20th and 21st Century Music  
MUS 774 - Seminar in Music Theory  
MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

#### **Music Education Courses – Credits: 6**

MUS 640 - Foundations and Principles of Music Education  
MUS 671 - Research in Music Education

#### **Orff Levels I-III Courses – Credits: 9**

MUS 642 - Orff Schulwerk Teacher Training Certification Level I  
MUS 643 - Orff Schulwerk Teacher Training Certification Level II  
MUS 644 - Orff Schulwerk Teacher Training Certification Level III

#### **Elective Course – Credits: 6**

Complete 6 credits of advisor-approved Applied Music or Conducting electives.

#### Degree Requirements

1. Successful completion of a minimum of 33 credits.
2. No more than eight hours of 500-level course work may be applied to the candidate's degree program.
3. All graduate students in music must maintain a minimum cumulative grade point average (GPA) of 3.00 in all degree-required courses. Only courses for which the student earns a final grade of "A", "A-", "B+", "B", or "S" may be applied to the graduate



degree. A graduate student whose cumulative GPA falls below 3.0 (B) in a given term will be placed on probation for the following term. If a 3.0 cumulative GPA is not attained by the end of the probationary term, the student will either be granted a final opportunity to raise her/his GPA or may be dismissed from the program.

4. Successful completion of MUS 690 - Bibliography, with a minimum grade of B, is a pre-requisite for all graduate-level music history classes.
5. The Department of Music reviews the academic performance of graduate students at the end of each academic year and reviews the academic performance of graduate students on assistantships at the end of each semester.
6. If the department determines that a student is not making satisfactory progress towards the degree, it will request that the Graduate Dean separate the student from the department or place the student on probation. A student whose cumulative GPA falls below 3.0 for three successive semesters will be automatically dismissed from the program.

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 9 Requirements: Conducting - Choral Track (On Hold)**

Total Credits Required: 33

Course Requirements

#### **Required Course – Credits: 9**

MUS 690 - Bibliography  
MUS 721 - Large Ensemble Conducting and Literature  
MUS 723 - Advanced Choral Conducting

#### **Music History Course – Credits: 6**

Complete 6 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
MUS 530 - French Melodie  
MUS 770A - Graduate History Seminar  
MUS 770B - Beethoven  
MUS 770C - Fin de Siecle  
MUS 770D - Music of Wagner  
MUS 770E - Music of Bach  
MUS 770F - Music of Stravinsky  
MUS 770G - History of Russian Music  
MUS 785 - The Symphony  
MUS 786A - The Operas of Mozart  
MUS 786B - The Operas of Verdi  
MUS 786C - Puccini and the Verismo  
MUS 786D - American Opera Seminar  
MUS 789 - The Art Song  
MUS 792 - History of Opera  
MUS 793 - Medieval and Renaissance Music  
MUS 794 - Music of the Baroque Period  
MUS 795 - Classical and Early Nineteenth-Century Music  
MUS 796 - Music of the Romantic Period  
MUS 797 - Music of the Twentieth Century

#### **Music Theory Course – Credits: 3**

Complete 3 credits from following list of courses:

MUS 501 - Counterpoint  
MUS 705 - Techniques of the Romantic Period  
MUS 706 - Twentieth-Century Techniques  
MUS 707 - Analysis in Relation to Performance  
MUS 708 - Aspects of Musical Style  
MUS 709X – Analysis of 20th and 21st Century Music  
MUS 774 - Seminar in Music Theory  
MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

#### **Conducting Courses – Credits: 8**

MUSA 766 - Private Graduate Conducting

#### **Recital Course – Credits: 2**

MUS 698 - Recital-Master's Level

#### **Ensembles Course – Credits: 2**

Complete 2 credits of advisor-approved ensemble coursework.

### **Elective Course – Credits: 3**

Complete 3 credits of advisor-approved elective coursework.

#### Degree Requirements

1. Successful completion of a minimum of 33 credits.
2. No more than eight hours of 500-level course work may be applied to the candidate's degree program.
3. All graduate students in music must maintain a minimum cumulative grade point average (GPA) of 3.00 in all degree-required courses. Only courses for which the student earns a final grade of "A", "A-", "B+", "B", or "S" may be applied to the graduate degree. A graduate student whose cumulative GPA falls below 3.0 (B) in a given term will be placed on probation for the following term. If a 3.0 cumulative GPA is not attained by the end of the probationary term, the student will either be granted a final opportunity to raise her/his GPA or may be dismissed from the program.
4. Successful completion of MUS 690 - Bibliography, with a minimum grade of B, is a pre-requisite for all graduate-level music history classes.
5. The maximum number of workshop credits is three.
6. The Department of Music reviews the academic performance of graduate students at the end of each academic year and reviews the academic performance of graduate students on assistantships at the end of each semester.
7. If the department determines that a student is not making satisfactory progress towards the degree, it will request that the Graduate Dean separate the student from the department or place the student on probation. A student whose cumulative GPA falls below 3.0 for three successive semesters will be automatically dismissed from the program.
8. All candidates for the Master of Music degree in Conducting are required to take

written and oral comprehensive examinations.

- a. The Master of Music comprehensive examinations consist of a written examination, and an oral examination.
- b. The comprehensive exams are taken during the term in which the student intends to graduate.
- c. For more specific information, please consult your advisor or the Department of Music Graduate Handbook.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 10 requirements: Conducting - Orchestral Track**

Total Credits Required: 33

#### Course Requirements

### **Required Course – Credits: 9**

MUS 690 - Bibliography  
MUS 721 - Large Ensemble Conducting and Literature

### **Music History Course – Credits: 6**

Complete 6 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
MUS 530 - French Melodie  
MUS 770A - Graduate History Seminar  
MUS 770B - Beethoven  
MUS 770C - Fin de Siecle  
MUS 770D - Music of Wagner  
MUS 770E - Music of Bach  
MUS 770F - Music of Stravinsky  
MUS 770G - History of Russian Music  
MUS 785 - The Symphony  
MUS 786A - The Operas of Mozart  
MUS 786B - The Operas of Verdi  
MUS 786C - Puccini and the Verismo  
MUS 786D - American Opera Seminar  
MUS 789 - The Art Song  
MUS 792 - History of Opera

MUS 793 - Medieval and Renaissance Music  
MUS 794 - Music of the Baroque Period  
MUS 795 - Classical and Early Nineteenth-Century Music  
MUS 796 - Music of the Romantic Period  
MUS 797 - Music of the Twentieth Century

### **Music Theory Course – Credits: 3**

Complete 3 credits from following list of courses:

MUS 501 - Counterpoint  
MUS 705 - Techniques of the Romantic Period  
MUS 706 - Twentieth-Century Techniques  
MUS 707 - Analysis in Relation to Performance  
MUS 708 - Aspects of Musical Style  
MUS 709X – Analysis of 20th and 21st Century Music  
MUS 774 - Seminar in Music Theory  
MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

### **Conducting Courses – Credits: 8**

MUSA 766 - Private Graduate Conducting

### **Recital Course – Credits: 2**

MUS 698 - Recital-Master's Level

### **Ensembles Course – Credits: 2**

MUSE 521 - Symphony Orchestra  
MUSE 522 - Chamber Orchestra

### **Elective Course – Credits: 3**

Complete 3 credits of advisor-approved elective coursework.

### **Degree Requirements**

1. Successful completion of a minimum of 33 credits.
2. No more than eight hours of 500-level course work may be applied to the candidate's degree program.
3. All graduate students in music must maintain a minimum cumulative grade point average (GPA) of 3.00 in all degree-required courses. Only courses for which the student earns a final grade of "A", "A-", "B+", "B",

or "S" may be applied to the graduate degree. A graduate student whose cumulative GPA falls below 3.0 (B) in a given term will be placed on probation for the following term. If a 3.0 cumulative GPA is not attained by the end of the probationary term, the student will either be granted a final opportunity to raise her/his GPA or may be dismissed from the program.

4. Successful completion of MUS 690 - Bibliography, with a minimum grade of B, is a pre-requisite for all graduate-level music history classes.
5. The Department of Music reviews the academic performance of graduate students at the end of each academic year and reviews the academic performance of graduate students on assistantships at the end of each semester.
6. If the department determines that a student is not making satisfactory progress towards the degree, it will request that the Graduate Dean separate the student from the department or place the student on probation. A student whose cumulative GPA falls below 3.0 for three successive semesters will be automatically dismissed from the program.
7. All candidates for the Master of Music degree in Conducting are required to take written and oral comprehensive examinations.
  - a. The Master of Music comprehensive examinations consist of a written examination, and an oral examination.
  - b. The comprehensive exams are taken during the term in which the student intends to graduate.
  - c. For more specific information, please consult your advisor or the Department of Music Graduate Handbook.

### **Graduation Requirements**

*See Plan Graduation Requirements below.*

### **Subplan 11 Requirements: Conducting - Wind Band Track**

Total Credits Required: 33

Course Requirements

**Required Course – Credits: 9**

MUS 690 - Bibliography  
MUS 721 - Large Ensemble Conducting and Literature  
MUS 722 - Instrumental Conducting Seminar

**Music History Course – Credits: 6**

Complete 6 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
MUS 530 - French Melodie  
MUS 770A - Graduate History Seminar  
MUS 770B - Beethoven  
MUS 770C - Fin de Siecle  
MUS 770D - Music of Wagner  
MUS 770E - Music of Bach  
MUS 770F - Music of Stravinsky  
MUS 770G - History of Russian Music  
MUS 785 - The Symphony  
MUS 786A - The Operas of Mozart  
MUS 786B - The Operas of Verdi  
MUS 786C - Puccini and the Verismo  
MUS 786D - American Opera Seminar  
MUS 789 - The Art Song  
MUS 792 - History of Opera  
MUS 793 - Medieval and Renaissance Music  
MUS 794 - Music of the Baroque Period  
MUS 795 - Classical and Early Nineteenth-Century Music  
MUS 796 - Music of the Romantic Period  
MUS 797 - Music of the Twentieth Century

**Music Theory Course – Credits: 3**

Complete 3 credits from following list of courses:

MUS 501 - Counterpoint  
MUS 705 - Techniques of the Romantic Period  
MUS 706 - Twentieth-Century Techniques  
MUS 707 - Analysis in Relation to Performance  
MUS 708 - Aspects of Musical Style  
MUS 709X – Analysis of 20th and 21st Century Music  
MUS 774 - Seminar in Music Theory

MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

**Conducting Courses – Credits: 8**

MUSA 766 - Private Graduate Conducting

**Recital Course – Credits: 2**

MUS 698 - Recital-Master's Level

**Ensembles Courses – Credits: 2**

MUSE 513 - Wind Orchestra

**Elective Course – Credits: 3**

Complete 3 credits of advisor-approved elective coursework.

Degree Requirements

1. Successful completion of a minimum of 33 credits.
2. No more than eight hours of 500-level course work may be applied to the candidate's degree program.
3. All graduate students in music must maintain a minimum cumulative grade point average (GPA) of 3.00 in all degree-required courses. Only courses for which the student earns a final grade of "A", "A-", "B+", "B", or "S" may be applied to the graduate degree. A graduate student whose cumulative GPA falls below 3.0 (B) in a given term will be placed on probation for the following term. If a 3.0 cumulative GPA is not attained by the end of the probationary term, the student will either be granted a final opportunity to raise her/his GPA or may be dismissed from the program.
4. Successful completion of MUS 690 - Bibliography, with a minimum grade of B, is a pre-requisite for all graduate-level music history classes.
5. The Department of Music reviews the academic performance of graduate students at the end of each academic year and reviews the academic performance of graduate students on assistantships at the end of each semester.

6. If the department determines that a student is not making satisfactory progress towards the degree, it will request that the Graduate Dean separate the student from the department or place the student on probation. A student whose cumulative GPA falls below 3.0 for three successive semesters will be automatically dismissed from the program.
7. All candidates for the Master of Music degree in Conducting are required to take written and oral comprehensive examinations.
  - a. The Master of Music comprehensive examinations consist of a written examination, and an oral examination.
  - b. The comprehensive exams are taken during the term in which the student intends to graduate.
  - c. For more specific information, please consult your advisor or the Department of Music Graduate Handbook.

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 12 Requirements: Graduate Licensure: K-12 Music Track**

Total Credits Required: 34

Course Requirements

**Required Courses – Credits: 9**

MUS 640 - Foundations and Principles of Music Education  
 MUS 641 - Studies in Music Curricula  
 MUS 671 - Research in Music Education

**Program Emphasis Courses – Credits: 12**

CIS 603 - Secondary Process and Instruction  
 EPY 708 - Human Learning and Development  
 MUS 650 - Educational Measurement in Music  
 MUS 655 - Teaching Music and Exceptional Learners

**Additional Program Emphasis Course – Credits: 3**

Complete one of the following courses:

MUS 721 - Large Ensemble Conducting and Literature  
 MUS 722 - Instrumental Conducting Seminar  
 MUS 723 - Advanced Choral Conducting  
 MUSA 760 - Secondary Applied Music for Doctoral Students

**Music History Course – Credits: 3**

Complete 3 credits from following list of courses:

MUS 529 - Interpretation: German Lied  
 MUS 530 - French Melodie  
 MUS 770A - Graduate History Seminar  
 MUS 770B - Beethoven  
 MUS 770C - Fin de Siecle  
 MUS 770D - Music of Wagner  
 MUS 770E - Music of Bach  
 MUS 770F - Music of Stravinsky  
 MUS 770G - History of Russian Music  
 MUS 785 - The Symphony  
 MUS 786A - The Operas of Mozart  
 MUS 786B - The Operas of Verdi  
 MUS 786C - Puccini and the Verismo  
 MUS 786D - American Opera Seminar  
 MUS 789 - The Art Song  
 MUS 792 - History of Opera  
 MUS 793 - Medieval and Renaissance Music  
 MUS 794 - Music of the Baroque Period  
 MUS 795 - Classical and Early Nineteenth-Century Music  
 MUS 796 - Music of the Romantic Period  
 MUS 797 - Music of the Twentieth Century

**Music Theory Course – Credits: 3**

Complete 3 credits from following list of courses:

MUS 501 - Counterpoint  
 MUS 705 - Techniques of the Romantic Period  
 MUS 706 - Twentieth-Century Techniques  
 MUS 707 - Analysis in Relation to Performance  
 MUS 708 - Aspects of Musical Style  
 MUS 709X – Analysis of 20th and 21st Century Music  
 MUS 774 - Seminar in Music Theory

MUS 770 - Techniques of the Classical Era  
MUS 770 - Techniques of the Baroque Era

### **Internship Course – Credits: 3**

MUS 502 - School Music Practicum

### **Culminating Experience – Credits: 1**

MUS 697 - Music Culminating Experience

### **Degree Requirements**

1. Successful completion of a minimum of 34 credits with a minimum GPA of 3.00.
2. Students are required to complete the courses as delineated in each phase of the program, both prior to and after, student teaching. In the Graduate Licensure Program, students complete the prerequisites and requirements for licensure (with student teaching) prior to completing the Master's degree.
3. Continuous enrollment must be maintained unless a letter requesting exemption for the semester in question is submitted. Once admitted, students must take a 500, 600 or 700 level course each semester.
4. CIS 601 must be successfully completed before taking MUS 502.
5. Successful completion of a culminating experience.

### **Graduation Requirements**

*See Plan Graduation Requirements below.*

### **Plan Graduation Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

## **Graduate Certificate in Teacher Licensure**

### **Plan Description**

The Graduate Certificate Program in Teacher Licensure is offered by the Department of Music for students who have already completed a Master of Music degree. Like the Master of Music Graduate Licensure Program (GLP) the certificate program will be advised by the Music Education Coordinator; majority of coursework is offered in the Department of Music/College of Fine Arts. This program allows for the Department of Music to meet the needs of Master of Music degree students seeking state teacher licensure requirements and provides for a stronger program than would be available through the state Alternate Licensure Program (ALP).

The Graduate Certificate Program in Teacher Licensure offers coursework that is required for licensure by the State of Nevada not available or required for Master of Music degrees in Performance, Music Education, Composition, or Conducting. Certificate will also include coursework enabling students to complete licensure requirements without obtaining a second Master of Music degree.

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

1. Students must have an earned Bachelor's degree with overall GPA of 2.75 or above in a Comprehensive Subject Area (Vocal/General or Instrumental).
2. Content coursework related to general music core for music majors that mirrors the music education majors must be on transcript (music theory, music history, conducting, piano, private instruction and ensembles.)
3. Passing scores in reading, writing, and mathematics on the Praxis I Pre-Professional Skills Test examination.
4. Passing scores on the Music Theory and Music History entrance examinations.
5. Passing scores on the Teacher Licensure Examinations for Nevada School Law,

Nevada Constitution and U.S. Constitution or related coursework.

6. Documentation of immunizations with UNLV Admissions and Records.
7. Field-based experiences (practicum and student teaching) require fingerprinting in compliance with the Clark County School District (CCSD) policy.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 43  
Course Requirements

### **Required Courses – Credits: 39**

CIS 601 - Secondary Teacher Development Seminar  
MUS 640 - Foundations and Principles of Music Education  
EPY 708 - Human Learning and Development  
MUS 650 - Educational Measurement in Music  
MUS 655 - Teaching Music and Exceptional Learners  
MUS 575 - Instrumental Methods  
MUS 576 - Choral Methods  
MUS 578 - Teaching of General Music  
MUS 502 - School Music Practicum  
MUS 581E - Elementary Supervised Student Teaching: Music  
MUS 581S - Secondary Supervised Student Teaching: Music

Note: MUS 502 requires a \$100 lab fee, and MUS 581E and MUS 581S both require \$400 lab fees.

### **Conducting Course – Credits: 3**

Complete one of the following courses:

MUS 721 - Large Ensemble Conducting and Literature

MUS 722 - Instrumental Conducting Seminar  
MUS 723 - Advanced Choral Conducting  
MUSA 760 - Secondary Applied Music for Doctoral Students

### **Culminating Experience – Credits: 1**

MUS 697 - Music Culminating Experience

Certificate Requirements

Completion of a minimum of 43 credit hours with a minimum GPA of 3.00.

### **Plan Certificate Completion Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

## School of Music Courses

### MUS 501 - Counterpoint

Credits 3

Analysis of polyphonic practices including sixteenth-, eighteenth-, and twentieth-century styles.

**Formerly** MUS 610

**Notes** This course is crosslisted with MUS 401.

Credit at the 500-level requires additional work.

**Prerequisites** Satisfactory score on the entrance exams, or successful completion of MUS 602 and MUS 604.

### MUS 502 - School Music Practicum

Credits 3

Students complete 45 hours in two placements (elementary and secondary) in music classrooms with teacher supervision to implement instructional plans and lessons and manage classrooms.

**Notes** Course taken the semester prior to student teaching.

**Prerequisites** CIS 601 and PPST.

**Corequisite** MUS 575, MUS 576, or MUS 578

### MUS 529 - Interpretation: German Lied

Credits 1

Study of German art song from 1700 to the present. Emphasis on style and interpretation, including study of the musical and historical contexts and their effect on poetry and art-song literature.

**Formerly** MUS 629

**Notes** This course is crosslisted with MUS 429.

Credit at the 500-level requires additional work.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent, and satisfactory score on the entrance exams, or successful completion of MUS 602 and MUS 603.

### MUS 530 - French Melodie

Credits 1

Study of French *mélodie* from 1800 to the present. Emphasis on style and interpretation, including the study of the musical and historical contexts and their effect on poetry and art-song literature.

**Formerly** MUS 630

**Notes** This course is crosslisted with MUS 430.

Credit at the 500-level requires additional work.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent, and satisfactory score on the entrance

exams, or successful completion of MUS 602 and MUS 603.

### MUS 553 - Music Skills for Classroom Teachers

Credits 3

Development of music skills useful in teaching and integrating music in a standards-based curriculum in the elementary grades. Classroom curriculum design and performance projects on recorder, Orff instruments and classroom percussion instruments. Methods, materials and techniques of Jaques-Dalcroze, Orff-Schulwerk, and Kodaly studied for functional application.

**Grading** Graduate standing.

### MUS 575 - Instrumental Methods

Credits 3

Overview of instrumental techniques in teaching music in junior and senior high schools. Topics include evaluation and selection of materials, repertoire, curriculum, classroom organization, teacher tools, communications, and use of multimedia and technology.

**Prerequisites** CIS 601 and PPST.

**Corequisite** MUS 502

### MUS 576 - Choral Methods

Credits 3

Overview of vocal techniques in teaching music in junior and senior high schools. Topics include evaluation and selection of materials, repertoire, curriculum, classroom organization, teacher tools, communications, and use of multimedia and technology.

**Prerequisites** CIS 601 and PPST.

**Corequisite** MUS 502

### MUS 577 - Teaching of Elementary Instrumental Music

Credits 1

Instruction in pedagogy and performance for general music to include guitar, recorder, barred instruments and unpitched percussion.

**Corequisite** MUS 578

### MUS 578 - Teaching of General Music

Credits 3

Methods of teaching research-based practices and standards based music curriculum in the elementary school. Includes communication skills, instructional



delivery, assessment, lesson design and behavior management.

**Prerequisites** CIS 601

**Corequisite** MUS 502

MUS 580 - The Healthy Musician

Credits 2

This course gives specific information about practical anatomy and movement. Students will gain ease in performing and learn how improved coordination enables them to avoid fatigue, technical limitation and injury.

**Prerequisites** Graduate standing in Music.

MUS 581E - Elementary Supervised Student

Teaching: Music

Credits 6-12

Full time teaching as a teacher candidate in an elementary school related directly to the teaching of music. Teacher candidates demonstrate their knowledge, skills and disposition for teaching through directed mentorship from certified licensed teachers and university liaisons/supervisors and participate in all aspects of an elementary school.

**Prerequisites** Enrolled in a degree-seeking program; minimum 2.75 cumulative GPA, fingerprinting; passing PPST scores.

MUS 581S - Secondary Supervised Student

Teaching: Music

Credits 6-12

Full time teaching as a teacher candidate in a secondary school related directly to the teaching of music. Secondary teacher candidates demonstrate their knowledge, skills and disposition for teaching through directed mentorship from certified licensed teachers and university liaisons/supervisors and participate in all aspects of a secondary school.

**Prerequisites** Enrolled in a degree-seeking program; minimum 2.75 cumulative GPA, fingerprinting; passing PPST scores.

MUS 590 - Music Internship

Credits 1

**Prerequisites** Consent of instructor.

MUS 602 - Graduate Ear Training Review

Credits 2

Designed to develop the student's ear training and

sight-singing skills to the level necessary to pass the Graduate Aural Skills/Sight-singing Placement Examination.

**Notes** Not credited toward graduate program of study.

**Grading** S/F grading only.

MUS 603 - Graduate Music History Review

Credits 3

An accelerated survey of composers and works from the Middle Ages to the present, providing graduate students with concepts and historical perspective needed for further graduate music history studies.

**Notes** Not credited toward graduate program of study.

MUS 604 - Graduate Theory Review

Credits 3

A review of common-practice harmony, counterpoint, and form.

**Notes** Not credited toward graduate program of study.

MUS 609 - Jazz Theory and Composition

Credits 3

Analytical and written studies covering advanced jazz harmony as it relates to specific style developments in jazz history from the bebop period to present day.

**Formerly** MUS 703

**Prerequisites** Graduate standing, undergraduate course work in jazz theory or consent of instructor.

MUS 611 - Jazz Keyboard and Arranging

Credits 3

Study of advanced keyboard techniques as they apply to jazz composition.

**Formerly** MUS 711

**Prerequisites** Graduate standing; undergraduate course work in jazz keyboard or consent of instructor.

MUS 613 - Jazz Pedagogy

Credits 3

Examination of the basic materials, systems, and philosophies related to jazz education.

**Formerly** MUS 729

**Prerequisites** Graduate standing or consent of instructor.

MUS 617 - Marching Band Techniques  
Credits 3  
Techniques of charting field movements and arranging musical selections for the marching band.  
**Formerly** MUS 717

MUS 640 - Foundations and Principles of Music Education  
Credits 3  
Examination of the historical, psychological, and philosophical foundations of music education and teaching principles derived from these foundations.  
**Formerly** MUS 752

MUS 641 - Studies in Music Curricula  
Credits 3  
Scope and sequence of musical experiences in the school music program including new techniques, trends, and developments in music education influencing change in curricula.  
**Formerly** MUS 751

MUS 642 - Orff Schulwerk Teacher Training Certification Level I  
Credits 3  
Development of a sequential teaching curriculum utilizing chants, rhymes, poetry, singing, rhythmic and melodic training, improvisation, the study of pentatonic scales, the ostinato, simple bordun accompaniments, and elemental forms and soprano recorder.  
**Prerequisites** Undergraduate major in music education or consent of instructor.

MUS 643 - Orff Schulwerk Teacher Training Certification Level II  
Credits 3  
Extension of Level One techniques with further exploration in the following areas: mixed and uneven meters, harmonizations to include the moving bordun and chord change accompaniments, movement and instrumental improvisation, extended form, and the continuation of the soprano recorder with the introduction of the alto recorder. Students will teach a short lesson demonstrating Orff process.  
**Grading** 3  
**Prerequisites** Successful completion of Orff Schulwerk Teacher Training Level I in an AOSA approved course.

MUS 644 - Orff Schulwerk Teacher Training Certification Level III  
Credits 3  
Extension of Level Two techniques with further exploration in instrumental and vocal improvisation; advanced orchestration; major, minor, and modal materials; advanced recorder and movement. Students will teach two short lessons.  
**Prerequisites** Successful completion of Orff Schulwerk Teacher Training Level II in an AOSA approved course.

MUS 645 - History of Orff Schulwerk  
Credits 3  
A study of the Orff Schulwerk approach through examination of key people and political events, dance and movement practices, pedagogy and orchestration. Level I Orff Schulwerk Teacher Certification or experience teaching in the approach is recommended.  
**Prerequisites** Consent of instructor.

MUS 646 - Advanced Orff Orchestration  
Credits 3  
A study and practical application of orchestration techniques in the Orff Schulwerk approach to include arranging folk songs, speech and body percussion, non-tuned percussion, recorder and barred percussion instruments. Level II Orff Schulwerk Teacher Certification and 5 years teaching experience in the Orff Schulwerk approach recommended.  
**Prerequisites** Instructor Consent

MUS 647 - Orff Schulwerk for the Classroom Teacher  
Credits 3  
Utilizes singing, creative movement, speech, body percussion, musical drama, and instruments. Provides opportunities to explore, plan, and develop units of musical activities which coordinate with public school music programs. Helps teachers improve individual music skills while enhancing classroom programs.  
**Formerly** MUS 745

MUS 650 - Educational Measurement in Music  
Credits 3  
A study of techniques, administration, and evaluation of tests and measurements appropriate for the K-12 music classroom to include: classroom tests and assessments, multiple-choice tests, performance-

based and authentic assessments, observational techniques, achievement and aptitude tests, portfolios, and standardized tests.

MUS 651 - Music Methods for Early Childhood  
Credits 3

Techniques for teaching and integrating music for preschool and primary children. Participation in musical experiences and performance assignments required.

**Prerequisites** Graduate or special student status.

MUS 652 - Advanced Studies in Elementary School Music

Credits 3

Review, critical analysis and examination of current pedagogy and materials in the elementary music classroom. Focus includes Kodaly, Orff, Dalcroze, and Gordon approaches, emphasis on the use of technology and the development of sequential experiences which contribute to contribute to children's musical growth.

**Formerly** MUS 754

MUS 653 - Teaching Non-Performance Music in Secondary School

Credits 3

Content, organization, and materials of non-performance music classes and teaching units for secondary school students to include: music appreciation, general music, music theory, and music history.

**Formerly** MUS 749

**Prerequisites** Graduate Standing

MUS 655 - Teaching Music and Exceptional Learners

Credits 3

Examination of the legislative, psychological, sociological, and philosophical foundations of music education for special learners and teaching principles derived from these foundations. Active discussion and lesson building, skills and approaches to teach in the music classroom with special learners will be actively included in class meetings.

**Formerly** MUS 755

**Prerequisites** Graduate standing.

MUS 671 - Research in Music Education

Credits 3

Investigation of methods of research, procedures for reporting research, and examination of research literature in music education.

**Formerly** MUS 771

MUS 672 - Research Project in Music Education  
Credits 3

Design and completion of research study using descriptive or experimental research skills in a clinical or educational setting, or using historical research techniques.

**Formerly** MUS 772

**Prerequisites** MUS 671

MUS 680 - Thesis

Credits 2-6

May be repeated but only six credits will be applied to the student's program.

**Grading** S/F grading only.

MUS 690 - Bibliography

Credits 3

Study of the bibliography of music and methods of research.

**Formerly** MUS 790

MUS 691B - Intermediate Reedmaking for Double Reed Instruments (Bassoon)

Credits 1

Applied basic to intermediate reed-making for double reed music majors.

**Notes** May be repeated to a maximum of 8 credits.

**Grading** S/F grading.

**Corequisite** Students must be enrolled in applied music lessons: MUSA 660, MUSA 661, MUSA 760 or MUSA 764

MUS 692B - Professional Reedmaking for Double Reed Instruments (Bassoon)

Credits 1

Students will improve their basic knowledge of reed construction and learn to create a variety of typical reed styles from multiple designers. Students will also begin the process of creating a personal reed style, based on their equipment, embouchure, physicality, and sound preference.

**Grading** S/F grading.

**Corequisite** Students must be enrolled in applied

music lessons: MUSA 660, MUSA 661, MUSA 760 or MUSA 764

MUS 697 - Music Culminating Experience  
Credits 1

Culminating experience for M.Ed. music students. Includes a selection of faculty approved options such as a comprehensive examination, professional manuscript or presentation, eportfolio project, or other equitable curricular experiences.

MUS 698 - Recital-Master's Level  
Credits 2

Presentation of a full recital.

**Formerly** MUS 798A

**Notes** May be repeated for a maximum of twelve credits.

**Prerequisites** Consent of Advisory Committee.

**Corequisite** Concurrent enrollment in MUS 661.

MUS 699 - Independent Study  
Credits 1-6

Investigation of specific aspect of music under supervision of a faculty member. Students must present proposals, including advisors and numbers of credits, no later than one week before registration, a) History/Literature. b) Theory/Composition. c) Music Education. d) Pedagogy and Literature.

**Prerequisites** Consent of instructor.

MUS 705 - Techniques of the Romantic Period  
Credits 3

Analytical and written studies covering compositional practices of the nineteenth and early twentieth centuries.

**Prerequisites** Satisfactory score on the entrance exams, or successful completion of MUS 602 and MUS 604.

MUS 706 - Twentieth-Century Techniques  
Credits 3

Analytical and written studies covering compositional practices from Impressionism to the present day.

**Prerequisites** Satisfactory score on the entrance exams, or successful completion of MUS 602 and MUS 604.

MUS 707 - Analysis in Relation to Performance  
Credits 3

A study of Schenkerian analysis and its application to the problems of performance.

**Prerequisites** Satisfactory score on the entrance exams, or successful completion of MUS 602 and MUS 604.

MUS 708 - Aspects of Musical Style  
Credits 3

Identification and study of the theoretical aspects of musical style through the examination of representative works from music literature.

**Prerequisites** Satisfactory score on the entrance exams, or successful completion of MUS 602 and MUS 604.

MUS 717 - Master Class in Singer's Diction  
Credits 3

Phonetics and diction for singers in English, Italian, French, German, and Spanish.

**Formerly** MUS 724

MUS 718 - Seminars in Voice  
Credits 3 – 9

To study representative vocal repertoire from major song composers of a) German lieder, b) French melodie c) Italian song and d) American song through performance, discussion, reading, and listening. Study of repertoire in each national area. Encompasses origins and development of the genre, and interpretive concerns relating to text, diction and composers' styles.

**Notes** May be repeated to a maximum of 12 credits.

**Prerequisites** Doctoral standing.

MUS 719 - Teaching Music in Higher Education  
Credits 1

Examination of the preparation, skills, and ethics essential for securing and retaining a faculty position in music at the college or university level.

**Prerequisites** Doctoral standing.

MUS 720 - Instrumental Music Reading and Conducting Workshop

Credits 1-3

Primarily for the purpose of reading large ensemble music with additional emphasis on conducting techniques and pedagogy. Orchestra.

MUS 721 - Large Ensemble Conducting and Literature

Credits 3

## LARGE ENSEMBLE CONDUCTING AND LITERATURE

MUS 722 - Instrumental Conducting Seminar  
Credits 3

Analysis of individual conducting problems with emphasis on orchestral and contemporary music. a) Orchestra b) Band.

MUS 723 - Advanced Choral Conducting  
Credits 3

Preparation of selected choral scores with emphasis on style and interpretation.

MUS 725 - Advanced Choral Literature  
Credits 3

Form and style in choral music of the Renaissance and Baroque periods to the present.

MUS 726 - Survey of Solo Repertoire  
Credits 3

Examination of solo literature available for performance in the following media. a) String. b) Woodwind. c) Brass. d) Percussion. e) Piano. f) Vocal. g) Guitar.

MUS 727 - Survey of Ensemble Repertoire  
Credits 3

Examination of ensemble literature available for performance in the following media. a) String. b) Woodwind. c) Brass. d) Percussion. e) Piano. f) Choral. g) Band. h) Orchestra.

MUS 728 - Percussion Literature and Pedagogy  
Credits 3

Study of the origins and developments and the pedagogical techniques of standard percussion instruments, including general concert percussion instruments, keyboard percussion instruments, and drum set.

**Prerequisites** Graduate standing or consent of instructor.

MUS 740 - History of Orff Schulwerk  
Credits 3

A study of the history of the Orff Schulwerk approach through examination of key people and political events, dance and movement practices, pedagogy and orchestration. Level I Orff Schulwerk Teacher Certification or experience teaching in the

approach is recommended.

**Prerequisites** Instructor Consent

MUS 742 - Orff Certification Level I  
Credits 3

Development of a sequential teaching curriculum utilizing chants, rhymes, poetry, singing, movement, instrumentation, and soprano recorder.

**Prerequisites** Undergraduate major in music education or consent of instructor.

MUS 743 - Orff Certification Level II  
Credits 3

Extension of a sequential teaching curriculum utilizing major and minor modes, additional harmonic techniques, complex rhythms, expanded elemental forms, and alto recorder.

**Prerequisites** Completion of Orff Level I.

MUS 744 - Orff Certification Level III  
Credits 3

Extension of a sequential teaching curriculum utilizing pentatonic and diatonic scales, lydian and mixolydian modes, descant, parallelism, irregular meters, changing meters, and off-beat accents.

**Prerequisites** Completion of Orff Level II.

MUS 746 - Master Class in Vocal Pedagogy  
Credits 3

Techniques for training and retraining voices. Study of the singer's vocal production mechanism.

MUS 747 - Instrumental Music Pedagogy  
Credits 3

Rationale and procedures for developing a logical and appropriate course of study for individual instruction of instrumental music. a) Piano. b) Brass. c) Woodwind. d) String. e) Guitar. f) Band. g) Orchestra.

MUS 748 - Music Wellness: A Survival Guide for Teachers and Performers  
Credits 3

Focuses on past and current research related to health preservation and injury prevention among musicians. Vocal, auditory, mental and neuromusculoskeletal health will be investigated through the exploration of Body Mapping, as well as methods developed by Feldenkreis, Alexander, Taubman and others.

**Prerequisites** Graduate standing in Music.

MUS 756 - Percussion Ensemble in the High School Curriculum

Credits 3

Focuses on elements needed to develop and maintain high school percussion ensembles. Primary attention devoted to conducting and performing techniques, and study of appropriate literature. Secondary attention devoted to general methods and maintenance of percussion section along with basic considerations for assigning parts.

**Prerequisites** Consent of instructor.

MUS 761 - Graduate Applied Music for Performance Majors

Credits 2 – 4

Individual instruction on instruments or voice.

Audition and jury examination required. a) Baritone. b) Bassoon. c) Cello. d) Clarinet. e) Flute. f) Horn. g) Oboe. i) Piano. j) Saxophone. k) String Bass. l) Trombone. m) Trumpet. n) Tuba. o) Viola. p) Violin. q) Voice. r) Guitar. s) Percussion. t) Organ. u) Harp.

MUS 762 - Graduate Applied Music for Performance Majors

Credits 2 – 4

Individual instruction on instruments or voice.

Audition and jury examination required. a) Baritone. b) Bassoon. c) Cello. d) Clarinet. e) Flute. f) Horn. g) Oboe. i) Piano. j) Saxophone. k) String Bass. l) Trombone. m) Trumpet. n) Tuba. o) Viola. p) Violin. q) Voice. r) Guitar. s) Percussion. t) Organ. u) Harp.

MUS 767 - Graduate Applied Music for Non-Performance Majors

Credits 2 – 4

Individual instruction on instruments or voice.

Audition and jury examination required. For students in music education or theory and composition curricula. a) Baritone. b) Bassoon. c) Cello. d) Clarinet. e) Flute. f) Horn. g) Oboe. l) Piano. j) Saxophone. k) String Bass. l) Trombone. m) Trumpet. n) Tuba. o) Viola. p) Violin. q) Voice. r) Guitar. s) Percussion. t) Organ. u) Harp.

MUS 768 - Graduate Applied Music for Non-Performance Majors

Credits 2 – 4

Individual instruction on instruments or voice.

Audition and jury examination required. For students in music education or theory and composition

curricula. a) Baritone. b) Bassoon. c) Cello. d) Clarinet. e) Flute. f) Horn. g) Oboe. l) Piano. j) Saxophone. k) String Bass. l) Trombone. m) Trumpet. n) Tuba. o) Viola. p) Violin. q) Voice. r) Guitar. s) Percussion. t) Organ. u) Harp.

MUS 770 - Seminar: Special Topics

Credits 1 – 9

Explores a specific aspect of music.

**Notes** May be repeated to a maximum of six credits for master's candidates and nine credits for doctoral candidates.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent; and either a satisfactory score on applicable entrance exam(s), or successful completion of MUS 603.

MUS 773 - Research Seminar

Credits 3

Study of research methodologies appropriate to the various disciplines of music history: biography and history, ethnomusicology, performance practice.

Study of each methodology complemented by practical applications such as oral reports, research papers, or lecture-recitals.

**Prerequisites** MUS 690 or equivalent; Master's degree in music.

MUS 774 - Seminar in Music Theory

Credits 3

Special topics in music theory including investigations of the underlying theoretical techniques of various composers' styles.

Investigations will include use of rhythm, harmony, counterpoint, form, instrumentation, as well as other elements of musical style.

**Prerequisites** MUS 707, MUS 708 or equivalent; Master's degree in music

MUS 777 - Seminars in Percussion

Credits 1 – 3

Candidate chooses three percussion topics to research at five-week intervals. Examines the topic as to its history, pedagogy, and literature. Formal presentation after each five-week period featuring the research with emphasis on specific area within the general topic.

**Prerequisites** Master's degree in music and consent of instructor.

MUS 780 - Document

Credits 2-6

The document is limited in scope compared to a dissertation, demonstrates professional standards of scholarship, and contributes to existing knowledge within the field of study.

**Prerequisites** Successful completion of D.M.A qualifying exams, successful completion of all required D.M.A academic course work and consent of advisory committee.

MUS 781 - Lecture-Recital

Credits 3

Presentation of a lecture-recital demonstrating a synthesis of performance and scholarship. Topic is directly related to the topic of the student's D.M.A document.

**Prerequisites** Successful completion of all required D.M.A academic course work and consent of advisory committee.

**Corequisite** Concurrent enrollment in MUS 764.

MUS 783 - Jazz History Seminar

Credits 3

In-depth study of jazz history with special focus on student research and presentations.

**Prerequisites** Graduate standing; undergraduate course work in jazz history or consent of instructor.

MUS 784 - Chamber Music

Credits 3

Study of chamber music from 1650 to the present. Analysis of representative works from different style periods and examination of relationship between instrumental technique and musical style.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent; and either a satisfactory score on applicable entrance exam(s), or successful completion of MUS 603.

MUS 785 - The Symphony

Credits 3

Study of the origins and development of the symphony from 1750 to the present. Analysis of representative works from different style periods and emphasis on relationships of development of orchestra and formal development of genre.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent; and either a satisfactory score on

applicable entrance exam(s), or successful completion of MUS 603.

MUS 786A - The Operas of Mozart

Credits 3

Detailed study of the operas of W. A. Mozart, analysis of style, vocal writing, of his librettists, and the influences on the formation of his style.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent; and either a satisfactory score on applicable entrance exam(s), or successful completion of MUS 603.

MUS 786B - The Operas of Verdi

Credits 3

Detailed study of the operas of Giuseppe Verdi, analysis of style, vocal writing, his librettists, and influences that led to formation of his style.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent; and either a satisfactory score on applicable entrance exam(s), or successful completion of MUS 603.

MUS 786C - Puccini and the Verismo

Credits 3

Surveys and discusses the operatic works of Giacomo Puccini and his importance to the historical development of opera. Discussion of the period in Italian Opera known as Verismo with emphasis on composers that help to create this musical form.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent; and either a satisfactory score on applicable entrance exam(s), or successful completion of MUS 603.

MUS 786D - American Opera Seminar

Credits 3

In-depth survey of American operas in the twentieth century, with emphasis on composer, representative works, style and content.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent; and either a satisfactory score on applicable entrance exam(s), or successful completion of MUS 603.

MUS 789 - The Art Song

Credits 3

Study of solo song from its beginning to the present day.

**Prerequisites** Satisfactory completion of MUS

690 or equivalent; and either a satisfactory score on applicable entrance exam(s), or successful completion of MUS 603.

**MUS 792 - History of Opera**  
Credits 3

Study of the historical development of opera from Monteverdi to the present with emphasis on representative works and composers.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent; and either a satisfactory score on applicable entrance exam(s), or successful completion of MUS 603.

**MUS 793 - Medieval and Renaissance Music**  
Credits 3

Study of the evolution of European music from antiquity through the end of the sixteenth century.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent; and either a satisfactory score on applicable entrance exam(s), or successful completion of MUS 603.

**MUS 794 - Music of the Baroque Period**  
Credits 3

Examination of the styles and forms of the seventeenth and early eighteenth centuries.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent; and either a satisfactory score on applicable entrance exam(s), or successful completion of MUS 603.

**MUS 795 - Classical and Early Nineteenth-Century Music**  
Credits 3

Examination of the styles and forms of the period 1750 to 1825.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent; and either a satisfactory score on applicable entrance exam(s), or successful completion of MUS 603.

**MUS 796 - Music of the Romantic Period**  
Credits 3

Examination of the styles and forms from 1815 through the early twentieth century.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent; and either a satisfactory score on applicable entrance exam(s), or successful completion of MUS 603.

**MUS 797 - Music of the Twentieth Century**  
Credits 3

Examination of the styles and forms from Impressionism to the present day.

**Prerequisites** Satisfactory completion of MUS 690 or equivalent; and either a satisfactory score on applicable entrance exam(s), or successful completion of MUS 603.

**MUS 798 - Recital**  
Credits 3

Presentation of a full recital at the doctoral level.

**Notes** May be repeated for a maximum of fifteen credits.

**Prerequisites** Consent of the advisory committee.

**MUS 799 - Independent Study**  
Credits 1 – 3

Investigation of specific aspect of music under supervision of a faculty member. Students must present proposals, including advisors and numbers of credits, no later than one week before registration, a) History/Literature. b) Theory/Composition. c) Music Education. d) Pedagogy and Literature.

**Notes** May be repeated to a maximum of six credits for master's candidates and nine credits for doctoral.

**Prerequisites** Consent of instructor.

**MUSA 766 - Private Graduate Conducting**  
Credits 2 – 4

Along with the individual private lesson, candidates must attend a weekly, one-hour conducting seminar. a) Orchestral. b) Band. c) Choral.

**Prerequisites** Successful audition and permission of instructor.

**MUSE 524 - New Horizons Band**  
Credits 1

A rehearsal and study of wind and percussion literature from all historical periods for members of the university and community. May include scheduled appears on and off campus.

**Notes** May be repeated to a maximum of 4 credits.

**MUSA 660 - Secondary Applied Music for Master's Students**  
Credits 2

Individual instruction on instruments or voice other than the student's area of specialization. a) Euphonium. b) Bassoon. c) Cello. d) Clarinet. e)



Flute. f) Horn. g) Oboe i) Piano. j) Saxophone. k) String Bass. l) Trombone. m) Trumpet. n) Tuba. o) Viola. p) Violin. q) Voice. r) Guitar. s) Percussion. t) Organ. u) Harp. v) Private Theory: Jazz. w) Private Theory and Composition: Classical. x) Wind Conducting. y) Orchestra Conducting. z) Choral Conducting.

**Prerequisites** Permission of instructor.

MUSA 661 - Applied Music for Master's Students  
Credits 2

Individual instruction on instruments or voice. Audition and jury examination required. a) Euphonium. b) Bassoon. c) Cello. d) Clarinet. e) Flute f) Horn. g) Oboe. i) Piano. j) Saxophone. k) String Bass. l) Trombone. m) Trumpet. n) Tuba. o) Viola. q) Voice. r) Guitar. s) Percussion. t) Organ. u) Harp. v) Private Theory: Jazz. w) Private Theory and Composition: Classical. x) wind conducting. y) orchestra conducting. z) choral conducting.

**Prerequisites** Successful audition and permission of instructor.

MUSA 760 - Secondary Applied Music for Doctoral Students  
Credits 2 - 4

Individual instruction for doctoral students outside of degree requirements. a) Euphonium, b) Bassoon, c) Cello, d) Clarinet, e) Flute, f) Horn, g) Oboe, i) Piano, j) Saxophone, k) String Bass, l) Trombone, m) Trumpet, n) Tuba, o) Viola, p) Violin, q) Voice, r) Guitar, s) Percussion, t) Organ, u) Harp, aa) Wind Conducting, y) Orchestra Conducting, z) Choral Conducting.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Permission of the Department chair.

MUSA 764 - Applied Music for Doctoral Students  
Credits 2 - 4

Individual instruction for doctoral students. a) Euphonium, b) Bassoon, c) Cello, d) Clarinet, e) Flute, f) Horn, g) Oboe, i) Piano, j) Saxophone, k) String Bass, l) Trombone, m) Trumpet, n) Tuba, o) Viola, p) Violin, q) Voice, r) Guitar, s) Percussion, t) Organ, u) Harp, aa) Wind Conducting, y) Orchestra Conducting, z) Choral Conducting.

**Notes** May be repeated to a maximum of sixteen credits.

**Prerequisites** Successful audition and permission of instructor.

MUSE 503 - Chamber  
Credits 1

Advanced chamber ensemble with emphasis on a cappella literature of all periods. Required participation in scheduled performances.

**Formerly** MUSE 603

**Notes** This course is crosslisted with MUSE 403. Credit at the 500-level requires additional work.

MUSE 504 - Opera Workshop  
Credits 1

Laboratory course devoted to the performance of operatic excerpts and short operas.

**Formerly** MUSE 604

**Notes** This course is crosslisted with MUSE 404. Credit at the 500-level requires additional work.

MUSE 505 - Women's Chorus  
Credits 1

Study and performance of sacred and secular choral music for female voices. Required participation in scheduled performances.

**Formerly** MUSE 605

**Notes** This course is crosslisted with MUSE 405. Credit at the 500-level requires additional work.

MUSE 506 - Varsity Men's Glee Club  
Credits 1

Study and performance of sacred and secular choral music for male voices. Required participation in scheduled performances.

**Formerly** MUSE 606

**Notes** This course is crosslisted with MUSE 406. Credit at the 500-level requires additional work.

MUSE 507 - Master Chorale  
Credits 1

Mixed choir for music majors, non-majors, and community members which focuses upon a cappella repertoire as well as major works with orchestra. Required participation in scheduled performances.

**Notes** This course is crosslisted with MUSE 407. Credit at the 500-level requires additional work.

**Prerequisites** Membership by audition.

MUSE 508 - Concert Singers  
Credits 1

Concert choir that performs sacred and secular choral music of many styles, including a cappella literature. Required participation in scheduled performances.

**Formerly** MUSE 608

**Notes** This course is crosslisted with MUSE 408.

Credit at the 500-level requires additional work.

MUSE 513 - Wind Orchestra

Credits 1

Emphasis on wind and percussion literature from all historical periods. Required participation in scheduled appearances for various events on and off campus.

**Formerly** MUSE 613

**Notes** This course is crosslisted with MUSE 413.

Credit at the 500-level requires additional work.

**Prerequisites** Successful audition.

MUSE 515 - Marching Band

Credits 1

Experience in large instrumental ensembles. Required participation in scheduled appearances for various events on and off campus. Designed primarily to perform at football games.

**Formerly** MUSE 615

**Notes** This course is crosslisted with MUSE 415.

Credit at the 500-level requires additional work.

**Prerequisites** Consent of instructor.

MUSE 516 - Pep Band

Credits 1

Experience in large instrumental ensembles. Required participation in scheduled appearances for various events on and off campus. Ensemble designed primarily to perform at basketball games.

**Notes** This course is crosslisted with MUSE 416.

Credit at the 500-level requires additional work.

**Prerequisites** Consent of instructor.

MUSE 518 - Community Concert Band

Credits 1

Open to all university students with previous band experience. Required participation in scheduled appearances for various events on and off campus.

**Formerly** MUSE 618

**Notes** This course is crosslisted with MUSE 418.

Credit at the 500-level requires additional work.

**Prerequisites** Consent of instructor.

MUSE 520 - Symphonic Winds

Credits 1

Open to music and select non-music majors who successfully audition at the end of the fall semester. Performs standard wind band literature with an emphasis upon practical pedagogical foundations. Required participation in scheduled appearances for various events on and off campus.

**Formerly** MUSE 620

**Notes** This course is crosslisted with MUSE 420.

Credit at the 500-level requires additional work.

**Prerequisites** Consent of instructor.

MUSE 521 - Symphony Orchestra

Credits 1

Premier university ensemble which rehearses and performs orchestral repertoire from the early Baroque to the present day. Participants selected by audition and the instructor's consent. All selected participants expected to be available for all rehearsals (including occasional evening and dress rehearsals) and performances.

**Notes** This course is crosslisted with MUSE 421.

Credit at the 500-level requires additional work.

**Prerequisites** Successful audition required.

MUSE 522 - Chamber Orchestra

Credits 1 credit each

Small orchestral ensemble with an emphasis on developing chamber music skills and rehearsal techniques. Repertoire ranges from the early Baroque to the present day.

**Formerly** MUSE 622

**Notes** This course is crosslisted with MUSE 422.

Credit at the 500-level requires additional work.

MUSE 525 - Civic Orchestra

Credits 1

An introduction to the modern symphony orchestra with an emphasis upon the learning and enjoyment of music, musical comprehension and appreciation. The ensemble performs regularly throughout the semester and is open to anyone with the desire to play an instrument within the orchestra idiom. Standard orchestral repertoire will be covered.

**Notes** May be repeated to a maximum of four credits.

MUSE 531 - Jazz Ensemble

Credits 1

Experience in large ensemble performances in the

jazz idiom. Required participation in scheduled appearances both on and off campus, including festivals and out-of-town tours. Open to university students by audition only.

**Formerly** MUSE 631

**Notes** This course is crosslisted with MUSE 431. Credit at the 500-level requires additional work.

**Prerequisites** By audition only.

MUSE 533 - Jazz Combo

Credits 1

Jazz Combo experience including the study of appropriate repertoire. Preparation for performances will be done in weekly scheduled combo rehearsals. In addition, each combo will perform two additional concerts, so that a minimum of three performances is required of each combo during the semester.

**Formerly** MUSE 633

**Notes** This course is crosslisted with MUSE 433. Credit at the 500-level requires additional work. May be repeated to a maximum of eight credits.

**Prerequisites** Successful audition.

MUSE 534 - Jazz Guitar Ensemble

Credits 1

Jazz Guitar Ensemble. Exposes guitar students to a broad spectrum of musical styles, exercises their reading skills, and spectrum of musical styles, exercises their reading skills, and introduces them to the art of improvisational soloing. Experience the camaraderie of playing in an ensemble and the opportunity to exchange information and ideas.

**Formerly** MUSE 634

**Notes** This course is crosslisted with MUSE 434. Credit at the 5000-level requires additional work.

**Prerequisites** Successful audition

MUSE 535 - Jazz Vocal Ensemble

Credits 1

Jazz Vocal Ensemble. Exposes the students to performance with emphasis on essential stylistic interpretations associated with the jazz vocal repertoire. A rhythm section will be provided.

**Formerly** MUSE 635

**Notes** This course is crosslisted with MUSE 435. Credit at the 500-level requires additional work.

MUSE 536 - Contemporary Jazz Ensemble

Credits 1

Rehearsals with performance opportunities in

contemporary jazz styles. Students will explore relevant jazz literature and are encouraged to compose original jazz music. Performances may take place on and off campus.

**Formerly** MUSE 636

**Notes** This course is crosslisted with MUSE 436. Credit at the 500-level requires additional work.

MUSE 537 - Jazz Latin Ensemble

Credits 1

Exposes the students to performance with emphasis on essential stylistic interpretations associated with Latin jazz repertoire.

**Prerequisites** Successful audition.

MUSE 541 - Woodwind Ensemble

Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances may take place on and off campus.

**Formerly** MUSE 641

**Notes** This course is crosslisted with MUSE 441. Credit at the 500-level requires additional work.

MUSE 543 - Flute Ensemble

Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances may take place on and off campus.

**Formerly** MUSE 643

**Notes** This course is crosslisted with MUSE 443. Credit at the 500-level requires additional work.

**Prerequisites** Audition and instructor consent required.

MUSE 544 - Clarinet Choir

Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances may take place on and off campus.

**Formerly** MUSE 644

**Notes** This course is crosslisted with MUSE 444. Credit at the 500-level requires additional work.

**Prerequisites** Audition and instructor consent required.

MUSE 545 - Saxophone Ensemble

Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances

may take place on and off campus.

**Formerly** MUSE 645

**Notes** This course is crosslisted with MUSE 445. Credit at the 500-level requires additional work.

**Prerequisites** Audition and instructor consent required.

MUSE 546 - Brass Ensemble

Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances may take place on and off campus.

**Formerly** MUSE 646

**Notes** This course is crosslisted with MUSE 446. Credit at the 500-level requires additional work.

**Prerequisites** Audition and instructor consent required.

MUSE 551 - String Chamber Ensemble

Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances may take place on and off campus.

**Formerly** MUSE 651

**Notes** This course is crosslisted with MUSE 451. Credit at the 500-level requires additional work.

MUSE 553 - Guitar Ensemble

Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances may take place on and off campus.

**Formerly** MUSE 653

**Notes** This course is crosslisted with MUSE 453. Credit at the 500-level requires additional work.

**Prerequisites** Audition and instructor consent required.

MUSE 561 - Percussion Ensemble

Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances may take place on and off campus.

**Formerly** MUSE 661

**Notes** This course is crosslisted with MUSE 461. Credit at the 500-level requires additional work.

**Prerequisites** Audition and instructor consent required.

MUSE 562 - Marimba Band

Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances may take place on and off campus.

**Formerly** MUSE 662

**Notes** This course is crosslisted with MUSE 462. Credit at the 500-level requires additional work.

**Prerequisites** Audition and instructor consent required.

MUSE 563 - African Ensemble

Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances may take place on and off campus.

**Formerly** MUSE 663

**Notes** This course is crosslisted with MUSE 463. Credit at the 500-level requires additional work.

**Prerequisites** Audition and instructor consent required.

MUSE 565 - Steel Drum Band

Credits 1

The UNLV Steel Band performs music of many genres predominantly the music indigenous to Jamaica and Trinidad. Students will develop the ability and skills to play a variety of steel pans, percussion instruments and drum set.

**Formerly** MUSE 665

**Notes** This course is crosslisted with MUSE 465. Credit at the 500-level requires additional work.

MUSE 566 - Hand Drum Ensemble

Credits 1

Art of playing a variety of hand drums from around the world. Students exposed to authentic patterns, techniques and the general drum circle experience. Beginning and advanced ensembles accommodate the needs of all participants.

**Notes** May be repeated to a maximum of 10 credits.

MUSE 571 - Piano Ensemble

Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances may take place on and off campus.

**Formerly** MUSE 671

**Notes** This course is crosslisted with MUSE 471. Credit at the 500-level requires additional work.

**Prerequisites** Audition and instructor consent required.

MUSE 572 - Accompanying  
Credits 1

Develops skills needed in vocal and instrumental accompanying. Fulfills 1 credit of ensemble requirement for piano majors.

**Formerly** MUSE 672

**Notes** This course is crosslisted with MUSE 472. Credit at the 500-level requires additional work.

**Prerequisites** Intermediate piano skills or consent of instructor.

MUSE 577 - Orff Ensemble  
Credits 1

Analysis of the compositional techniques of Carl Orff and Gunild Keetman through active participation and playing in ensembles comprised of voice, body percussion, tuned and non-tuned percussion and recorder.

**Notes** This course is crosslisted with MUSE 377. Credit at the 500-level requires additional work.

MUSE 580 - Opera Production  
Credits 1

Involvement as a performer or production assistant in an opera/opera production.

**Formerly** MUSE 680

**Notes** This course is crosslisted with MUSE 480. Credit at the 500-level requires additional work.

**Prerequisites** Successful audition.

MUSE 590 - Special Ensemble  
Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances may take place on and off campus.

**Formerly** MUSE 690

**Notes** This course is crosslisted with MUSE 490. Credit at the 500-level requires additional work.

**Prerequisites** Audition and instructor consent required.

MUSE 591 - Chamber Music for Non Majors  
Credits 1

Graduate credit may be obtained for courses designated 500 or above. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Formerly** MUSE 691

**Notes** Credit at the 500 level normally requires additional work.

**Prerequisites** Audition and instructor consent required.

MUSE 593 - Special Vocal Ensemble  
Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances may take place on and off campus.

**Formerly** MUSE 693

**Notes** This course is crosslisted with MUSE 493. Credit at the 500-level requires additional work.

**Prerequisites** Audition and instructor consent required.

MUSE 594 - Collegium  
Credits 1

Study, performance, and researching of early and rarely performed music of historical importance, including new and unperformed works. Performances prepared for both university and public presentation. Open to qualified personnel by audition and consent of instructor. The Collegium determines its own procedural policies. (A) Madrigal singers (B) Early Music Consort.

**Formerly** MUSE 694

**Notes** This course is crosslisted with MUSE 494. Credit at the 500-level requires additional work.

**Prerequisites** Audition and consent of instructor.

MUSE 595 - Chamber Players  
Credits 1

Teaching and performance of contemporary music, with special emphasis on the historic approach to the many styles that have developed from early twentieth century to the present time. Also involves the learning and proper execution of various new notational styles.

**Formerly** MUSE 695

**Notes** This course is crosslisted with MUSE 495. Credit at the 500-level requires additional work.

MUSE 619 - Brass Band  
Credits 1

Ensemble designed to rehearse and concertize literature composed/transcribed for large brass ensemble and percussion. Required participation in

scheduled appearances for various events on and off campus.

**Notes** Credit at the 500 level normally requires additional work.

**Prerequisites** Consent of instructor.

MUSE 664 - Percussion and Dance

Credits 1

Students rehearse and perform chamber music for various instrumental combinations. Performances may take place on and off campus.

**Notes** This course is crosslisted with MUSE 464. Credit at the 600-level requires additional work.

## **Theatre**

The Department of Theatre provides cultural enrichment for the university and community through the university theatre season.

*Brackley Frayer, Chair*

*Nate Bynum, Graduate Coordinator*

## Theatre Faculty

### Chair

**Frayner, Brackley** - *Full Graduate Faculty*  
Professor; B.A., New England College; M.F.A., Yale  
School of Drama. *Rebel since 1995.*

### Graduate Coordinator

**Bynum, Joe Nathan** - *Full Graduate Faculty*  
Professor; B.S., Bowie State College; M.F.A.,  
Southern Illinois University. *Rebel since 1999.*

### Graduate Faculty

**Aldridge, Joe** - *Full Graduate Faculty*  
Associate Professor; B.A., Texas Tech University;  
M.A., University of Nevada, Las Vegas. *Rebel since*  
*1989.*

**Bynum, Joe Nathan** - *Full Graduate Faculty*  
Professor; B.S., Bowie State College; M.F.A.,  
Southern Illinois University. *Rebel since 1999.*

**Cornell, Rayme** - *Full Graduate Faculty*  
Assistant Professor; B.A., University of Nevada, Las  
Vegas; M.F.A., University of Missouri, Kansas  
City. *Rebel since 2007.*

**Gilyard, Clarence** - *Full Graduate Faculty*  
Associate Professor; B.A., California State  
University, Dominguez Hills; M.F.A., Southern  
Methodist University. *Rebel since 2006.*

**Hubbard, Philip J.** - *Full Graduate Faculty*  
Professor; B.A., University of California, Riverside;  
M.F.A., Southern Methodist University. *Rebel since*  
*1999.*

**Jakubowsk, Peter** - *Full Graduate Faculty*  
Assistant Professor; B.A., SUNY Buffalo; M.F.A.,  
Temple University. *Rebel since 2005.*

**Koep, Jeffrey** - *Full Graduate Faculty*  
Professor and Dean, College of Fine Arts; B.A.,  
Moorhead State University; M.A., Bowling Green  
State University; Ph.D., Washington State  
University. *Rebel since 1989.*

**Lugering, Michael** - *Full Graduate Faculty*  
Professor; B.S., Florida State University; M.F.A.,  
University of Utah. *Rebel since 1991.*

**McDonough, Ann** - *Full Graduate Faculty*  
Professor; B.A., College of St. Catherine; M.A.,  
Ph.D., University of Minnesota. *Rebel since 1990.*

**Ryerson, Judith A.** - *Full Graduate Faculty*  
Associate Professor; B.F.A., West Virginia  
University, M.F.A., University of Utah. *Rebel since*  
*2005.*

**Sumpter, Shannon** - *Full Graduate Faculty*  
Associate Professor; B.F.A., Adelphi University;  
M.F.A., Yale School of Drama. *Rebel since 1999.*

**Tylo, Michael** - *Full Graduate Faculty*  
Adjunct Faculty; B.F.A., M.F.A., Wayne State  
University. *Rebel since 2006.*

### Professors Emeriti

**Brewer, Robert**  
Emeritus Professor; B.F.A., University of Illinois;  
M.F.A., Pennsylvania State University. *UNLV*  
*Emeritus 1989.*

**Burgan, Robert N.**  
Emeritus Professor; B.A., University of Nevada, Las  
Vegas, M.F.A., Ohio University. *UNLV Emeritus*  
*1972.*

**Crawford, Jerry L.**  
Emeritus Professor; B.F.A., Drake University; M.A.,  
Stanford University; Ph.D., University of Iowa.  
*UNLV Emeritus 1962-1994.*

**Harris, Paul C.**  
Emeritus Professor; B.A., University of Colorado;  
M.A., Ph.D., Stanford University. *UNLV Emeritus*  
*1959-1989.*

## Master of Arts - Theatre

### Plan Description

The theatre department's Master of Arts program is designed to deepen the student's knowledge and understanding of the theatre. Focus is on developing strong research skills culminating in completion of a thesis and reading list. A minimum of 31 semester hours of credit (12 are electives) approved by student's advisor and student's committee are required.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Students seeking an M.A. degree are admitted for matriculation in the fall or spring semester of the academic year. In addition to the general requirements for admission to the Graduate College, the following department application materials must be uploaded into the online application:

1. Transcripts from all postsecondary institutions attended, showing an undergraduate degree in theatre and the date awarded. (An acceptable alternative undergraduate major coupled with satisfactory practical experience in theatre may be deemed equivalent to an undergraduate major in theatre.)
2. A written statement (500 words or less) of the applicant's purpose in pursuing graduate study.
3. A sample research paper or research statement to demonstrate research and writing ability.

4. Two letters of recommendation sent by former instructors, employers, or other professionals who can evaluate the applicant's potential to complete graduate study.

Note: A writing sample and/or a personal interview may also be requested by the department's Graduate Coordinator.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 31

Course Requirements

#### Required Courses – Credits: 9

THTR 681 - Theatre History I  
THTR 682 - Theatre History II  
THTR 701 - Research in Theatre and Drama

#### Seminar Course – Credits: 4

THTR 702 - Graduate Seminar

#### Elective Courses – Credits: 12

Complete 12 credits of advisor-approved graduate-level elective courses.

#### Thesis – Credits: 6

THTR 798 - Thesis

Degree Requirements

1. Completion of a minimum of 31 credit hours with a minimum GPA of 3.00.
2. A reading list will be given to each student upon entering the program. It contains major works in theatre history, performance theory, and dramatic criticism and play texts. It is expected that M.A. students will have read everything on the list and be prepared to answer questions of



- comprehension as part of their final examination.
3. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
  4. A thesis topic is proposed by the student and approved by the examination committee. The M.A. thesis should be an original contribution of knowledge about a suitable dramatic or theatrical subject, no less than fifty pages in length. In matters of form and style, the student should follow the procedures set forth by the Graduate College in this catalog and in its Thesis and Dissertation Manual. A minimum of six thesis credits is required in the degree program.
  5. Thesis credits should be taken over the course of at least two semesters with a minimum of two credit hours in the student's final semester of study.
  6. Students enrolled in the M.A. program will take a written diagnostic examination at the beginning of their first semester. Additionally, M.A. candidates will take a written comprehensive examination one week prior to their oral examination. The first half of the oral examination will be focused on defense of thesis; the second half will be based upon the Graduate Reading List, the curricular content represented in the student's individual course of study, and the results of their comprehensive examination.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
  3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation from both degrees up to two semesters prior to completing his/her degree requirements.

## Master of Fine Arts - Theatre

### Plan Description

The Master of Fine Arts is a three-year program offering advanced concentrations in Design/Technology, Directing, Performance, Playwriting, and Stage Management. Actors, directors, playwrights, designers, stage managers, and technicians receive comprehensive and specialized training in preparation for careers in the professional theatre. While deeply committed to the individual theatre artist, the program fosters and encourages an integrated and collaborative approach to theatre. In each semester of training, graduate students share a two-credit graduate seminar committed to progressive and practical exploration of the essential theatre.

The Nevada Conservatory Theatre engages national and international theatre professionals in all disciplines to work alongside the most advanced students from the UNLV Department of Theatre. It is a leading theatre in Las Vegas and southern Nevada. It enriches, strengthens, and challenges the cultural and artistic life of the city and strives to be the state's premier theatre. It seeks the most advanced level of artistic achievement and to become a renowned regional theatre in America.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

Learning outcomes for specific subplan tracks can be found below:

- Master of Fine Arts - Theatre; Concentration in Design/Technology
- Master of Fine Arts - Theatre; Concentration in Directing
- Master of Fine Arts - Theatre; Concentration in Performance
- Master of Fine Arts - Theatre; Concentration in Stage Management

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

In addition to the general requirements for admission to the Graduate College, the following department application materials must be uploaded into the online application:

1. Transcripts from all postsecondary institutions attended, showing an undergraduate degree in theatre and the date awarded. (An acceptable alternative undergraduate major coupled with satisfactory practical experience in theatre may be deemed equivalent to an undergraduate major in theatre.) M.F.A. candidates deemed to have deficiencies in their training may be required to take specific remedial course work. Students with deficiencies in theatre history will be required to take THTR 681 and THTR 682 (Theater History I and II). Remedial course work may not be counted toward the degree requirements.
2. A written statement (500 words or less) of the applicant's purpose in pursuing graduate study.
3. Two letters of recommendation sent by former instructors, employers, or other professionals who can evaluate the applicant's potential to complete graduate study.

#### *Design/Technology Track*

In addition to general materials requested by the Department of Theatre, please submit a portfolio of representative work.

#### *Directing Track*

In addition to general materials requested by the Department of Theatre (see above), please submit a directorial analysis of a play chosen from the following list:

Othello (Shakespeare)  
Tartuffe (Moliere)  
She Stoops to Conquer (Goldsmith)

A Doll's House (Ibsen)  
 Long Day's Journey Into Night (O'Neill)  
 A Streetcar Named Desire (Williams)  
 All My Sons (Miller)  
 Glengarry Glen Ross (Mamet)  
 Take Me Out (Greenberg)  
 The Heidi Chronicles (Wasserstein)  
 Fences (Wilson)  
 Lips Together Teeth Apart (McNally)  
 Wit (Edson)  
 The Goat (Albee)

The analysis should not exceed five double-spaced typewritten pages and should include:

1. A brief statement of the director's reason for selecting this play.
2. A single sentence summary of the plot.
3. A single sentence expressing the essence of the play in a metaphor.
4. A simple description of the theatrical style the director is contemplating. (This may best be achieved by comparing the production to other well-known works.)
5. A selected, annotated bibliography of historical, social, political or aesthetic research.
6. A brief discussion of time and location of the action. If the director intends to reset the action to a locale or time not indicated in the script, there must be a clear description and justification of that choice.
7. Three color copies of visual images you would submit to your designers as a point of departure for your collaboration.

All directing students are required to interview with members of the directing faculty. Interviews will be arranged after required materials have been received. The M.F.A. Directing Program has a three-year admission cycle.

#### *Performance Track*

In addition to general materials requested by the Department of Theatre (see above), students must audition either in person or through submission of a video (audition videos cannot be returned). The audition should contain the following:

1. Two contrasting selections, one of which must be Shakespeare. The total audition should not exceed four minutes in length.
2. A song selected from a Broadway musical not to exceed one minute in length. A CD or cassette recording of your accompaniment is recommended as accompaniment cannot be provided.

The M.F.A. in Performance Program admits a new class every three years.

#### *Playwriting Track*

In addition to general materials requested by the Department of Theatre (see above), submit two original plays, including at least one full-length play, and a one page statement of personal aesthetics. Materials cannot be returned.

#### *Stage Management Track*

In addition to general materials requested by the Department of Theatre (see above), submit several pages from a sample prompt script (cannot be returned). An interview with Stage Management faculty will be scheduled after application materials have been received.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Design/Technology Track**

Total Credits Required: 72

Course Requirements

#### **Required Courses – Credits: 6**

Complete the following courses, or other advisor-approved courses.

THTR 701 - Research in Theatre and Drama  
 THTR 661 - Play Structure and Analysis

**Seminar Course – Credits: 6**

Complete 6 credits of the following course, or other advisor-approved courses.

THTR 702 - Graduate Seminar

**Design/Technology Studio Courses – Credits: 27**

Select an area of concentration and complete 27 credits from the associated list of courses, or other advisor-approved courses.

*Scene Design:*

THTR 727 - Scene Design Studio I  
THTR 728 - Scene Design Studio II  
THTR 729 - Scene Design Studio II

*Technical Design:*

THTR 732 - Technical Direction Studio I  
THTR 733 - Technical Direction Studio II  
THTR 734 - Technical Direction Studio III

*Costume Design:*

THTR 741 - Costume Design Studio I  
THTR 742 - Costume Design Studio II  
THTR 743 - Costume Design Studio III

*Lighting Design:*

THTR 745 - Lighting Design Studio I  
THTR 746 - Lighting Design Studio II  
THTR 747 - Lighting Design Studio III

**Internship – Credits: 9**

Complete 9 credits of the following course, or other advisor-approved courses.

THTR 796 - Internship

**Elective Courses – Credits: 15**

Complete 15 credits of advisor-approved electives.

**Creative Project – Credits: 9**

Complete 9 credits of the following course, or other advisor-approved courses.

THTR 797 - Creative Project

## Degree Requirements

*See Plan Graduation Requirements below.*

## Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 2 Requirements: Directing Track (On Hold)**

Total Credits Required: 72

## Course Requirements

**Required Courses – Credits: 15**

Complete the following courses, or other advisor-approved courses.

THTR 707 - Form, Style and Structure  
THTR 719 - Dramaturgy  
THTR 727 - Scene Design Studio I  
THTR 741 - Costume Design Studio I  
THTR 745 - Lighting Design Studio I

**Seminar Course – Credits: 8**

Complete 8 credits of the following course, or other advisor-approved courses.

THTR 702 - Graduate Seminar

**Directing Course – Credits: 12**

Complete 12 credits of the following course, or other advisor-approved courses.

THTR 725 - Directing Studio

**Stage Management Course – Credits: 3**

Complete 3 credits of the following course, or another advisor-approved course.

THTR 736 - Stage Management Studio I

**Acting Course – Credits: 8**

Complete 8 credits of the following course, or other advisor-approved courses.

THTR 771 - Acting Studio

**Scene Study Course – Credits: 12**

Complete 12 credits of the following course, or other advisor-approved courses.

THTR 773 - Scene Study

**Elective Courses – Credits: 11**

Complete 11 credits of advisor-approved electives.

**Creative Project – Credits: 3**

Complete 3 credits of the following course, or other advisor-approved courses.

THTR 797 - Creative Project

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 3 Requirements: Performance Track**

Total Credits Required: 72

Course Requirements

**Audition Course – Credits: 2**

Complete the following course, or another advisor-approved course.

THTR 763 - Audition Technique

**Dialect Course –Credits: 1**

Complete 1 credit of the following course, or another advisor-approved course.

THTR 764 - Dialects for the Stage

**Seminar Course – Credits: 10**

Complete 10 credits of the following course, or other advisor-approved courses.

THTR 702 - Graduate Seminar

**Acting Course – Credits: 12**

Complete 12 credits of the following course, or other advisor-approved courses.

THTR 771 - Acting Studio

**Scene Course – Credits: 12**

Complete 12 credits of the following course, or other advisor-approved courses.

THTR 773 - Scene Study

**Sound and Movement Course – Credits: 10**

Complete 10 credits of the following course, or other advisor-approved courses.

THTR 775 - Sound and Movement Studio

**Movement Course – Credits: 6**

Complete 6 credits of the following course, or other advisor-approved courses.

THTR 777 - Movement for the Actor

**Speech Course – Credits: 6**

Complete 6 credits of the following course, or other advisor-approved courses.

THTR 779 - Speech for the Actor

**Dance Course – Credits: 6**

Complete 6 credits of the following course, or other advisor-approved courses.

THTR 781 - Dance for the Actor

**Elective Courses – Credits: 7**

Complete 7 credits of advisor-approved electives.

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 4 Requirements: Playwriting Track (On Hold)**

Total Credits Required: 72

Course Requirements

**Required Courses – Credits: 21**

Complete the following courses, or other advisor-approved courses.

THTR 701 - Research in Theatre and Drama

THTR 707 - Form, Style and Structure

THTR 713 - Playwriting:

THTR 714 - Playwriting:

THTR 716 - Playwrights Laboratory

THTR 719 - Dramaturgy

THTR 726 - Problems in Direction

**Seminar Course – Credits: 10**

Complete 10 credits of the following course, or other advisor-approved courses.

THTR 702 - Graduate Seminar

**Playwrights Master Course – Credits: 12**

Complete 12 credits of the following course, or other advisor-approved courses.

THTR 711 - Playwrights Master Class

**Tutorial Course – Credits: 3**

Complete 3 credits of the following course, or other advisor-approved courses.

THTR 717 - Playwrights Tutorial

**Workshop Course –Credits: 5**

Complete 5 credits of the following course, or other advisor-approved courses.

THTR 720 - Playwrights Workshop

**Internship – Credits: 3**

Complete 3 credits of the following course, or other advisor-approved courses.

THTR 796 - Internship

**Elective Courses – Credits: 12**

Complete 12 credits of advisor-approved electives.

**Creative Project – Credits: 6**

Complete 6 credits of the following course, or other advisor-approved courses.

THTR 797 - Creative Project

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 5 Requirements: Stage Management Track**

Total Credits Required: 72

Course Requirements

**Required Courses – Credits: 9**

Complete the following courses, or other advisor-approved courses.

THTR 636 - Rehearsal Management

THTR 637 - Theatre Management

THTR 638 - Production Management

**Stage Management I Course – Credits: 8**

Complete 8 credits of the following course, or other advisor-approved courses.

THTR 736 - Stage Management Studio I

**Stage Management II Course – Credits: 12**

Complete 12 credits of the following course, or other advisor-approved courses.

THTR 737 - Stage Management Studio II

**Internship – Credits: 12**

Complete 12 credits of the following course, or other advisor-approved courses.

THTR 796 - Internship

### **Entertainment and Law Courses – Credits: 6**

Complete the following courses, or other advisor-approved courses.

THTR 621A - Entertainment & Fine Art Law I  
THTR 621B - Entertainment & Fine Art Law II

### **Seminar Course – Credits: 6**

Complete 6 credits of the following course, or other advisor-approved courses.

THTR 702 - Graduate Seminar

### **Additional Theatre Courses – Credits: 9**

Complete 9 credits from the following list of courses, or other advisor-approved courses.

THTR 654 - Directing I  
THTR 701 - Research in Theatre and Drama  
THTR 727 - Scene Design Studio I  
THTR 732 - Technical Direction Studio I  
THTR 735 - Sound Design: Theory and Practice  
THTR 741 - Costume Design Studio I  
THTR 745 - Lighting Design Studio I  
THTR 748 - Seminar in Theatre Architecture and Apparatus  
THTR 749 - CAD for the Theatre

### **Elective Courses – Credits: 6**

Complete 6 credits from the following list of courses, or other advisor-approved courses.

COM 603 - Public Communication  
COM 604 - Principles of Persuasion  
COM 634 - Conflict Management  
ACC 607 - Governmental and Not-for-Profit Accounting  
HOA 745 - Human Dynamics and Organizational Leadership  
FIS 721 - Collaboration and Preparation  
FIS 728 - Graduate Production  
ENG 609A - Visual Rhetoric  
ENG 634A - Shakespeare: Tragedies  
ENG 634B - Shakespeare: Comedies and Histories  
ENG 663A - Classical Drama in Translation  
ENG 664A - English Drama to 1642  
ENG 665B - Restoration and Eighteenth-Century

Drama

ENG 666A - Nineteenth-Century Drama  
ENG 667A - Modern British Drama  
ENG 667B - Modern American Drama

### **Creative Project – Credits: 4**

Complete 4 credits of the following course, or other advisor-approved courses.

THTR 797 - Creative Project

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Degree Requirements**

1. Completion of a minimum of 72 credit hours with a minimum GPA of 3.00.
2. A reading list will be given to each student upon entering the program. It contains major works in theatre history, performance theory, dramatic criticism and approximately one hundred play texts. It is expected that graduate students will read everything on the list and be prepared to answer questions of comprehension as part of their final examination.
3. The candidacy of all first-year M.F.A. students is provisional. Upon completion of the first year of study, the faculty in each area formally review their students' academic and artistic progress. If progress is deemed satisfactory, a student is advanced to M.F.A. candidacy. After advancement to candidacy, the student forms an examination committee comprised of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

4. The faculty in each area of study periodically review the candidate's progress. Termination of candidacy is determined by the faculty in consultation with the student's advisor, the examination committee and the Graduate Coordinator.
5. All M.F.A. candidates will complete a two-hour oral examination at the end of their course of study. The first hour will focus on the student's course of study and the intent, purpose, conceptualization and realization of the student's creative project(s). The second hour will focus on the graduate reading list.
6. In addition to required course work, graduate students in the Performance Track must audition for all productions affiliated with the Nevada Conservatory Theatre and the University Theatre Season.

### **Plan Graduation Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

### **Theatre Courses**

THTR 621A - Entertainment & Fine Art Law I  
Credits 3

Protection of works created by entertainers and artists, including American and European copyright protection and the unique state and federal statutory rights possessed by performers and artists such as the rights of publicity and issues of resale royalties. Special consideration to film and music industries.

**Notes** This course is crosslisted with THTR 421A. Credit at the 600-level requires additional work.

THTR 621B - Entertainment & Fine Art Law II  
Credits 3

Unique legal issues in the fields of live stage performance, theatre, music, television and film, the art gallery and museum relationships, including legal and social censorship, First Amendment protection, state and federal obscenity statutes, and contract problems.

**Notes** This course is crosslisted with THTR 421B. Credit at the 600-level requires additional work.

THTR 636 - Rehearsal Management  
Credits 3

Examination of the Unions encountered in theatrical venues to develop a familiarity with the rehearsal and work-related rules encountered.

THTR 637 - Theatre Management  
Credits 3

Focuses on the relationship between the art and business of theatre, exploring "front of house" positions such as general managers, business managers, box office managers, publicity and development directors.

**Formerly** THTR 739

**Prerequisites** Graduate standing.

THTR 638 - Production Management  
Credits 3

Examines the responsibilities of production managers. Focuses on organizational skills, dissemination of information and collaborative relationship that a production manager must foster with design, technical, and performance staff.

**Formerly** THTR 740

**Prerequisites** Graduate standing.

THTR 654 - Directing I  
Credits 3



Introduction to the basic principles and techniques of play direction.

**Notes** This course is crosslisted with THTR 454.  
Credit at the 600-level requires additional work.

#### THTR 661 - Play Structure and Analysis

Credits 3

Study in script analysis including form, style, literal and metamorphical content and themes.

**Notes** This course is crosslisted with THTR 461.  
Credit at the 600-level requires additional work.

#### THTR 675 - Musical Theatre Literature

Credits 3

Study of selected plays of the American and European musical theatre.

**Notes** This course is crosslisted with THTR 475.  
Credit at the 600-level requires additional work.

#### THTR 681 - Theatre History I

Credits 3

Study of theatre within the political and social context of Western Europe from Classical Greece to the mid-nineteenth century. Representative plays read and discussed.

**Notes** This course is crosslisted with THTR 481.  
Credit at the 600-level requires additional work.

#### THTR 682 - Theatre History II

Credits 3

Study of the evolution of theatre within the cultural, political, and social context of Europe, United States, Africa, and South America from the beginnings of realism to the present. Representative plays discussed.

**Notes** This course is crosslisted with THTR 482.  
Credit at the 600-level requires additional work.

#### THTR 701 - Research in Theatre and Drama

Credits 3

Graduate research methodology, research reporting and research/creative thesis document preparation.

#### THTR 702 - Graduate Seminar

Credits 3

Interdisciplinary course in history, theory, criticism, dramaturgy, aesthetics and technique. Through selected readings, lectures, discussions and collaborative projects, actors, directors, designers, playwrights, stage managers and theatre scholars

explore the essential theatre. Topics rotate each semester. Course required for all M.A. and M.F.A. Students.

**Notes** May be repeated to a maximum of nine credits.  
**Prerequisites** Graduate standing.

#### THTR 703 - Collaborative Process

Credits 3

Explores the working relationships between designer, director, and technician in the process of play production.

**Notes** May be repeated for a maximum of six credits.

#### THTR 704 - Oral History Theatre

Credits 3

Focuses on the study of the development, structure and performance techniques of oral history theatre. Methods presented along with guidelines for adapting techniques to a variety of age groups.

#### THTR 707 - Form, Style and Structure

Credits 3

Study of the theatre text, classical to modern, explicating form, style and structure.

#### THTR 711 - Playwrights Master Class

Credits 3

Advanced writing class for second and third year playwrights.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Consent of instructor.

#### THTR 713 - Playwriting:

Credits 3

The One-Act Play Practical course in the writing of shorter dramatic forms, focusing on craft, structure and technique.

**Prerequisites** Consent of instructor.

#### THTR 714 - Playwriting:

Credits 3

The Full Length Play Practical course in the writing of long dramatic forms, focusing on craft, structure and technique.

**Prerequisites** Consent of instructor.

#### THTR 715 - Playwriting:

Credits 3

Adaptation Study and writing workshop of

adaptations for the stage of non-dramatic sources and adaptations of plays from earlier historical periods.

**Prerequisites** Consent of instructor.

THTR 716 - Playwrights Laboratory  
Credits 3

Explores the collaborative role of the playwright during the rehearsal process of a new play with actors, directors, and dramaturg.

**Prerequisites** Consent of instructor.

THTR 717 - Playwrights Tutorial  
Credits 1 – 4

Meetings with individual members of the faculty and with guest artists for discussion of successive drafts of work in progress.

**Prerequisites** Consent of instructor.

THTR 719 - Dramaturgy  
Credits 3

Overview of the history, form and function of dramaturgy. Provides active experience in dramaturgy, on a variety of drama from the classic play to new works. Collaborative relationships among director, playwright, and dramaturg explored.

**Prerequisites** Graduate standing.

THTR 720 - Playwrights Workshop  
Credits 1 – 5

Weekly meeting of all playwrights for reading and discussion of works in progress.

**Prerequisites** Consent of instructor.

THTR 725 - Directing Studio  
Credits 3

Laboratory course in the technique and aesthetics of directing. Topics rotate each semester and may include history of directing, rehearsal techniques, script analysis, visualization, and collaboration. Specific laboratory assignments may include apprenticeships, dramaturgy, stage management as well as directing short, full-length musical and original playscripts.

**Notes** May be repeated to a maximum of eighteen credits.

**Prerequisites** Consent of instructor.

THTR 726 - Problems in Direction  
Credits 3

"The following course was not found in the supplied

content but, were listed in program requirements. Please review and provide us, if possible, with the correct information."

THTR 727 - Scene Design Studio I  
Credits 3

Focuses on training the first-year graduate student in scene design. Emphasizes the essential skills of drafting, researching historical and visual sources, aesthetic judgment, concept development, and production collaboration. Student required to assist faculty and advanced designers on a minimum of three productions for the year.

**Prerequisites** Consent of instructor.

THTR 728 - Scene Design Studio II  
Credits 3 – 6

Focuses on training the second-year graduate student in scene design. Develops skills in rendering, model making, and refines skills through assignment as designer on a minimum of two department productions for the year.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** THTR 727

THTR 729 - Scene Design Studio II  
Credits 3 – 6

Focuses on the graduate student's last year of development. Provides the student with the opportunity to demonstrate the mastering of the professionalism needed to practice the art of scene design. Student required to design a minimum of two productions for the year.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** THTR 728

THTR 732 - Technical Direction Studio I  
Credits 3 – 6

Trains the first-year graduate student in technical direction. Emphasizes the essential skills of drafting, CAD, researching historical and visual sources, aesthetic judgement, concept development and production collaboration. Student required to assist faculty and advanced technical direction students on a minimum of two productions for the year.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Consent of instructor.

THTR 733 - Technical Direction Studio II

Credits 3 – 6

Trains the second-year graduate student in technical direction. Develops skills in rigging safety, welding, sound, construction techniques, construction methods, estimating, and ordering materials. Student required to assist faculty and advanced technical direction students on a minimum of three productions for the academic year.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** THTR 732

THTR 734 - Technical Direction Studio III

Credits 3 – 6

Focuses on the graduate student's last year of development. Provides student with the opportunity to demonstrate the mastering of the professionalism needed to practice the art of technical direction. Student required to serve as Technical Director for a minimum of two productions for the year.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** THTR 733

THTR 735 - Sound Design: Theory and Practice

Credits 3

Art of sound design developed through lectures, weekly projects, demonstrations, and production involvement.

THTR 736 - Stage Management Studio I

Credits 1 – 4

Focuses on the principles and techniques of stage management with emphasis on setting up the prompt book, dissemination of information, and the relationship with directors, actors, and staff. Also examines contracts that the stage manager works under with an emphasis on work-related rules. Stage management assignment.

**Notes** May be repeated to a maximum of eight credits.

**Prerequisites** Consent of instructor.

THTR 737 - Stage Management Studio II

Credits 1 – 4

In addition to lab assignments, rotating topics may include: Production, show management, entertainment on the road, performance artist representation, career preparation. Guest speakers

address working in the professional theatre.

**Notes** May be repeated to a maximum of 16 credits.

**Prerequisites** Graduate standing, THTR 736

THTR 741 - Costume Design Studio I

Credits 3 – 6

Focuses on training the first-year graduate student in costume design. Emphasizes the essential skills of play analysis, historic period research, aesthetic judgment, costume rendering techniques and production collaboration. Student assists faculty and advanced graduate designers on a minimum of three productions for the year.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Consent of instructor.

THTR 742 - Costume Design Studio II

Credits 3 – 6

Focuses on training the second-year graduate student in costume design. Emphasizes the refinement of design skills, such as plot layouts, the costume plate, and fabric. Assignment of a minimum of two department productions for the year, demonstrating practical application of the knowledge gained.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** THTR 741

THTR 743 - Costume Design Studio III

Credits 3 – 6

Focuses on the graduate student's last year of development in his/her area of specialization. In addition to further refinements in theory, technique and style, program culminates with the student demonstrating the mastery of costume design through a minimum of two fully realized assignments for the year for a substantial department production.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** THTR 742

THTR 745 - Lighting Design Studio I

Credits 3 – 6

Focuses on training the first-year graduate student in lighting design. Develops skills in concept development research, production collaboration, design, drafting and execution of the light plot for theatre and dance.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Consent of instructor.

THTR 746 - Lighting Design Studio II

Credits 3 – 6

Focuses on training the second-year graduate student in lighting design. Further develops skills in concept development research, production collaboration, design, drafting and execution of the light plot for theatre and dance. Development through assignment on a minimum of two department productions for the year.

**Notes** Student required to assist faculty and advanced designers on a minimum of three productions for the year. May be repeated to a maximum of nine credits.

**Prerequisites** THTR 745

THTR 747 - Lighting Design Studio III

Credits 3 – 6

Focuses on training the third-year graduate student in lighting design. Final year provides the student with the opportunity to demonstrate the mastering of the skills and responsibilities of a lighting designer. Student required to design a minimum of two productions for the year.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** THTR 746

THTR 748 - Seminar in Theatre Architecture and Apparatus

Credits 3

In-depth study of the architectural instrument, the theatre building. Covers the structural forms, grounding them in their historical timeline. The team-taught seminar provides a basic process for accessing and using the theatre building of the present and planning the theatre building of tomorrow.

**Prerequisites** Graduate standing.

THTR 749 - CAD for the Theatre

Credits 3

Explores the use of computer-aided drafting in theatre design and technology. Includes training in Mincad, Maclux Pro and other programs available for use in theatre design and technology practices.

**Prerequisites** Consent of instructor.

THTR 763 - Audition Technique

Credits 2

Preparation of a theatre audition, both musical and nonmusical. Study of theatrical unions, contracts, agents, and the legal and professional aspects of

professional acting.

**Notes** Instructor approval.

THTR 764 - Dialects for the Stage

Credits 1-3

Study and practice of dialects and accents for the stage.

**Prerequisites** Consent of instructor.

THTR 771 - Acting Studio

Credits 1-4

Laboratory course in the practice and process of the technique, craft, and aesthetics of acting. Through a series of basic exercises and improvisational studies specialized skills in action, subtext, environment, sensory awareness, characterization, language, and script analysis are developed in the context of a variety of theatrical styles which are rotated each semester.

**Notes** May be repeated to a maximum of sixteen credits.

**Prerequisites** Consent of instructor.

THTR 773 - Scene Study

Credits 1-4

Repertory course for actors and directors. Rotating scene material selected each semester from the canon of theatrical literature and may include contemporary drama, classical American realism, Shakespeare, Greek and Roman drama, Comedy of Manners, musical theatre, original scripts, Modernism, the avant garde, television & film, and performance.

**Notes** May be repeated to a maximum of sixteen credits.

**Prerequisites** Graduate status, consent of instructor.

THTR 775 - Sound and Movement Studio

Credits 1-4

Integrated voice and body course designed specifically for the actor to increase strength, flexibility, range, control, placement, coordination, and efficiency. Exercises and improvisational studies are designed specifically to address the psycho-physical aspects of dramatic action and character transformation.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Instructor approval.

THTR 777 - Movement for the Actor

Credits 1-3

Rotating course in various movement disciplines which have practical application to the art and craft of acting. Topics may include the Alexander Technique, the Feldenkrais Method, Pilates techniques, Suzuki, yoga, tai chi, weight training, aerobics, stage combat, mime, clown, circus techniques, improvisation, and movement for period style.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Consent of instructor.

THTR 778 - Problems in Makeup

Credits 3

Study and practical experience in the art of makeup.

**Notes** May be repeated to a maximum of six credits.

THTR 779 - Speech for the Actor

Credits 1-4

Technical course in articulation and pronunciation for the actor. Vocal anatomy and physiology, the International Phonetic Alphabet, phrasing, linkage, syllabication, stress, and vowel length explored for clarity, efficiency, coordination, dexterity, and control in the formation of the sounds of spoken English.

**Notes** May be repeated to a maximum of eight credits.

**Prerequisites** Consent of instructor.

THTR 781 - Dance for the Actor

Credits 1

Laboratory course in the technique and aesthetics of dance. Different dance forms of styles rotated each semester may include ballet, modern, jazz, tap, ballroom, and musical theatre dance.

THTR 791 - Commerce of Theatre

Credits 2

Study of theatre contracts, unions, legal, management, and practical business/market concerns.

THTR 793 - Special Topics in Theatre

Credits 1 – 3

Selected topics announced including master classes.

**Notes** May be repeated to a maximum of six credits.

THTR 795 - Supervised Individual Study

Credits 1 – 3

Consultation course consisting of individual student effort under guidance of instructor with Students request assignment to specific areas or issues on the basis of interest and preparation. Prior to registration, the student must secure consent in writing from the instructor directing the study. May be repeated to a maximum of nine credits.

**Notes** Must be taken for the maximum four credit hours, but these hours should normally be spread over at least two terms. A student may not register for this course until the project supervisor has been designated and the project tentatively established.

**Prerequisites** Consent of instructor.

THTR 796 - Internship

Credits 1 – 12

Internship at regional centers of theatre activity.

**Notes** May be repeated to a maximum of 12 credits.

**Prerequisites** Subject to M.F.A. program requirements.

THTR 797 - Creative Project

Credits 1 – 12

Planning and execution of a major creative proposal as a thesis production and project.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Subject to M.F.A. program requirements.

THTR 798 - Thesis

Credits 1 – 6

Must be taken for a maximum of six hours, but these hours normally should be spread over at least two terms. A student may not register for this course until the thesis director has been designated and the topic tentatively established.

**Notes** May be repeated to a maximum of six credits.

**Grading** S/F grading only.

**Prerequisites** Graduate standing.

## Division of Health Sciences

The health issues facing our local, state, and national governments are complex, and the solutions will require research, innovation, and collaboration from individuals and agencies representing the full spectrum of health and wellness.

UNLV's Division of Health Sciences — along with other health science-related programs in the Nevada System of Higher Education — is addressing today's pressing needs and making tomorrow's discoveries.

The division is comprised of the schools of Dental Medicine, Nursing, Community Health Sciences and Allied Health Sciences. Guided by a mission that demands UNLV serves its community, the division is using research, education, training, and service to form unique public and private partnerships. These partnerships are helping provide quality health care to the underserved, educating future professionals, and exploring ways to improve the health and well-being of our citizens. Taken together, UNLV is helping build a foundation for a healthier and more vibrant Nevada.

## Doctor of Philosophy - Interdisciplinary Health Sciences

### Plan Description

This Ph.D. in IHS will provide students from different disciplines an opportunity to learn how to approach complex healthcare problems. Team science will direct this activity and will prepare students to create functioning teams to solve problems that interface with a number of different disciplines. Understanding team science concepts will better position graduates as valuable and productive research and academic collaborators who will be able to answer broader and more important translational research questions. This team science concept will form the core of the coursework in this program. These core interdisciplinary courses will be the foundation of the Ph.D.; however, students will be able to select a track or sub-plan (i.e., Nursing, Rehabilitation Sciences, Health Physics, Kinesiology) which will also have a set of discipline-specific core classes. This will allow them to apply team science concepts while developing expertise in a specialized area of study.

For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.

### Admission Requirements

Students will be admitted into the program by the program director of the sub-plan or sub-plan Ph.D. admissions committee to which they are applying.

However, the minimum requirements of the Ph.D. in IHS are:

1. An overall undergraduate/graduate GPA of 3.25 or higher
2. Greater than the 50th average percentile on the quantitative, verbal, and analytic portions of the GRE (taken within the last 5 years)
3. Three letters of recommendation
4. Interview with two core faculty members
5. A curriculum vitae
6. A personal statement.

7. If the applicant is from a country where English is not an official language, then the applicant must demonstrate English proficiency by scoring 80 or higher on the Test of English as a Foreign Language, by scoring 7.0 or higher on the International English Language Testing System, by earning a score of greater than the 70th percentile on the GRE-verbal, or by earning a baccalaureate or higher at a regionally accredited institution in the U.S. or in a university where English is the language of instruction.

See specific sub-plan requirements below:

#### *Admissions Requirements - Nursing Track*

Students applying for the Nursing track of the Doctor of Philosophy - Interdisciplinary Health Sciences must meet the following requirements:

1. A BSN or MSN from an accredited School of Nursing. Master's degree in a health-related discipline and a BSN from an accredited institution would also meet this requirement.
2. Applicants must have a current RN license in the U.S. or country of residence.

#### *Admissions Requirements - Rehabilitation Track*

Students applying for the Rehabilitation track of the Doctor of Philosophy - Interdisciplinary Health Sciences must meet the following requirements:

1. Have graduated from an accredited rehabilitation clinical sciences profession (e.g., physical therapy, occupational therapy, speech therapy, athletic training) at either the Master's or first-professional clinical doctoral level. If the applicant has a professional Bachelor's degree only, then 30 additional credits of degree-consistent, graduate-level coursework (determined by the sub-plan committee) will be required.

#### *Admissions Requirements - Health Physics Track*

Students applying for the Health Physics track of the Doctor of Philosophy - Interdisciplinary Health Sciences must meet the following requirements:

1. Graduated with a Master's degree from a regionally accredited institution in the field of health physics, physics, chemistry, engineering or other related field. Applicants with Bachelor degrees may be admitted to the program but are required to take an additional 30 credits of elective, degree-consistent, graduate level coursework (determined by the Health Physics Graduate Committee).

#### *Admissions Requirements - Kinesiology Track*

Students applying for the Kinesiology track of the Doctor of Philosophy - Interdisciplinary Health Sciences must meet the following requirements:

1. Graduated with a Master's degree from a regionally accredited institution in the field of kinesiology/exercise science, biology, chemistry, computer science, engineering, psychology or other related field.

### **Plan Requirements**

*See Subplan Requirements below.*

#### **Subplan Requirements 1: Nursing Track**

Total Credits Required: 60

#### **Course Requirements**

Interdisciplinary Research Core Courses - Credits: 9

Choose three of the following courses:

- HSC 701 - Interdisciplinary Team Science
- HSC 702 - Translational Research Design
- HSC 703 - Interdisciplinary Grant Writing for Health Sciences
- HSC 704 - Selected Applications in Statistics 2
- HSC 705 - Clinical Trial Design And Analysis

### **Interdisciplinary Health Seminar - Credits: 3**

HSC 710 - Seminar

### **Nursing Core - Credits: 31**

NURS 709 - Teaching and Learning in Nursing Education

NURS 739 - Biobehavioral Approaches in Nursing Research

NURS 771 - Theory Development in Nursing

NURS 772 - The Nurse as Leader

NURS 775 - Statistical Methods for Nursing Research I: Univariate Methods

NURS 780 - Quantitative Methods in Nursing

NURS 781 - Qualitative Research Methods in Nursing

NURS 789 - Independent Study

NURS XXX Introduction to laboratory procedures for bio-behavioral studies (2)\*

NURS XXX Bio-behavioral mechanism, pathways and measurements (3)\*

NURS XXX Bio-behavioral Nursing Seminar: Developing a dissertation study (2)\*

### **Elective Courses - Credits: 5**

Complete 5 credits of advisor approved graduate-level Nursings (NURS) courses.

Dissertation - Credits: 12

HSC 711 - Dissertation

Degree Requirements

1. Students must complete 24 credits in the interdisciplinary health sciences core (12 of which are dissertation credits) and must complete 36 credits in the sub-plan core. The minimum credit total in the program is 60 credits.
2. Students must complete the degree with a cumulative GPA >3.0 and graduation must occur within 6 years for students enrolling with master's degrees and 8 years for students enrolling with bachelor's degrees.
3. Grades below B will not be acceptable. If the grade was received in a core class, then the student must retake the class. If a core class was not satisfactorily passed on two

attempts, the student will be dismissed from the program. If the grade was in an elective class, then the class can be retaken or replaced with another elective class.

4. Students will complete a comprehensive examination which will be an interdisciplinary grant application. That is, this extramural grant proposal will have to have an interdisciplinary team science approach to answer a focused and important health science question. If a student fails the comprehensive examination they will be able to retake it again after a minimum of three months. If they fail a second time they will be separated from the program.
5. Students will also be required to complete a prospectus prior to dissertation in a focused research area. The dissertation committee will have an interdisciplinary element as two of the committee members will be from the chosen sub-plan but the other two committee members will be from outside the sub-plan discipline (one will be the Graduate College Representative). Thus, the committee will have an interdisciplinary membership and will have a stronger voice for a team science approach.
6. Students will complete at least one national/international presentation as a platform or a poster from research generated during their Ph.D. program.

### **Graduation Requirements**

See Plan Graduation Requirements

### **Subplan Requirements 2: Rehabilitation Post-Bachelor's Track**

Total Credits Required: 90

Course Requirements

Interdisciplinary Research Core Courses - Credits: 9

Choose three of the following courses:

HSC 701 - Interdisciplinary Team Science

HSC 702 - Translational Research Design

HSC 703 - Interdisciplinary Grant Writing for Health Sciences



HSC 704 - Selected Applications in Statistics 2  
HSC 705 - Clinical Trial Design And Analysis

**Interdisciplinary Health Seminar - Credits 3**

HSC 710 - Seminar

**Rehabilitation Sciences Core - Credits: 21**

DPT 712 - Physiological Bases of Rehabilitation  
DPT 713 - Genomic and Regenerative Rehabilitation  
Concepts  
DPT 714 - Neuroplasticity  
DPT 715 - Pathobiomechanics

And at least 3 additional graduate level courses (9 credits) relevant to course of study

**Rehabilitation Sciences Core –12 Credits**

DPT 702 - Critical Appraisal and Synthesis of  
Research in Rehabilitation  
DPT 703 - Admission to PhD in Interdisciplinary  
Health Sciences program

And at least 2 additional graduate level statistics  
courses (6 credits)

**Rehabilitation Pedagogy Core - 3 Credits**

One pedagogy class from College of Education from  
the list below or another advisor approved pedagogy  
course.

EDH 627 - Student Learning and Development  
EDH 733 - The Professorate  
EDH 742 - Academic Governance in Higher  
Education  
EDW 733 - Workforce Education Curriculum and  
Program Development  
EDW 747 - Workforce Education Teaching  
EPY 712 - Foundations of Learning and Cognition  
EPY 757 - Theory and Philosophy of Educational  
Psychology  
EPY 767 - Human Learning and Cognition  
EPY 777 - Cognitive Development  
CIT 608 - Integrating Technology in Teaching and  
Learning  
CIT 643 - Designing Digital Materials for Education  
CIT 647 - Creating Online Learning Environments  
CIT 648 - Issues and Methods in Online Learning

CIT 653 - Creating Digital Materials for Education  
CIT 667 - Technology and Educational Change  
CIT 669 - Advanced Web Design and Development  
for Educators  
CIT 778 - Instructional Design

**Elective Courses - Credits: 30**

Complete 30 credits of advisor approved graduate-  
level courses.

**Dissertation - Credits: 12**

HSC 711 - Dissertation

**Degree Requirements**

1. Students must complete 24 credits in the interdisciplinary health sciences core (12 of which are dissertation credits) and must complete 36 credits in the sub-plan core. The minimum credit total in the program is 60 credits.
2. Students must complete the degree with a cumulative GPA >3.0 and graduation must occur within 6 years for students enrolling with master's degrees and 8 years for students enrolling with bachelor's degrees.
3. Grades below B will not be acceptable. If the grade was received in a core class, then the student must retake the class. If a core class was not satisfactorily passed on two attempts, the student will be dismissed from the program. If the grade was in an elective class, then the class can be retaken or replaced with another elective class.
4. Students will complete a comprehensive examination which will be an interdisciplinary grant application. That is, this extramural grant proposal will have to have an interdisciplinary team science approach to answer a focused and important health science question. If a student fails the comprehensive examination they will be able to retake it again after a minimum of three months. If they fail a second time they will be separated from the program.
5. Students will also be required to complete a prospectus prior to dissertation in a focused research area. The dissertation committee

will have an interdisciplinary element as two of the committee members will be from the chosen sub-plan but the other two committee members will be from outside the sub-plan discipline (one will be the Graduate College Representative). Thus, the committee will have an interdisciplinary membership and will have a stronger voice for a team science approach.

6. Students will complete at least one national/international presentation as a platform or a poster from research generated during their Ph.D. program.

### **Graduation Requirements**

See Plan Graduation Requirements

### **Subplan Requirements 3: Rehabilitation Post-Master's Track**

Total Credits Required: 60

### **Course Requirements**

#### **Interdisciplinary Research Core Courses - Credits: 9**

Choose three of the following courses:

HSC 701 - Interdisciplinary Team Science  
HSC 702 - Translational Research Design  
HSC 703 - Interdisciplinary Grant Writing for Health Sciences  
HSC 704 - Selected Applications in Statistics 2  
HSC 705 - Clinical Trial Design And Analysis

#### **Interdisciplinary Health Seminar - Credits: 3**

HSC 710 - Seminar

#### **Rehabilitation Sciences Core - Credits: 21**

DPT 712 - Physiological Bases of Rehabilitation  
DPT 713 - Genomic and Regenerative Rehabilitation Concepts

DPT 714 - Neuroplasticity  
DPT 715 - Pathobiomechanics

And at least 3 additional graduate level courses (9 credits) relevant to course of study

#### **Rehabilitation Sciences Core - Credits: 12**

DPT 702 - Critical Appraisal and Synthesis of Research in Rehabilitation  
DPT 703 - Admission to PhD in Interdisciplinary Health Sciences program

And at least 2 additional graduate level statistics courses (6 credits)

#### **Rehabilitation Pedagogy Core - Credits: 3**

One pedagogy class from College of Education from the list below or another advisor approved pedagogy course.

EDH 627 - Student Learning and Development  
EDH 733 - The Professorate  
EDH 742 - Academic Governance in Higher Education  
EDW 733 - Workforce Education Curriculum and Program Development  
EDW 747 - Workforce Education Teaching  
EPY 712 - Foundations of Learning and Cognition  
EPY 757 - Theory and Philosophy of Educational Psychology  
EPY 767 - Human Learning and Cognition  
EPY 777 - Cognitive Development  
CIT 608 - Integrating Technology in Teaching and Learning  
CIT 643 - Designing Digital Materials for Education  
CIT 647 - Creating Online Learning Environments  
CIT 648 - Issues and Methods in Online Learning  
CIT 653 - Creating Digital Materials for Education  
CIT 667 - Technology and

Educational Change  
CIT 669 - Advanced Web Design and  
Development for Educators  
CIT 778 - Instructional Design

platform or a poster from research generated  
during their Ph.D. program

**Dissertation - Credits: 12**

HSC 711 - Dissertation

Graduation Requirements

*See Plan Graduation Requirements*

**Subplan Requirements 4: Biomechanics Track**

Total Credits Required: 60

Degree Requirements

1. Students must complete 24 credits in the interdisciplinary health sciences core (12 of which are dissertation credits) and must complete 36 credits in the sub-plan core. The minimum credit total in the program is 60 credits.
2. Students must complete the degree with a cumulative GPA >3.0 and graduation must occur within 6 years for students enrolling with master's degrees and 8 years for students enrolling with bachelor's degrees.
3. Grades below B will not be acceptable. If the grade was received in a core class, then the student must retake the class. If a core class was not satisfactorily passed on two attempts, the student will be dismissed from the program. If the grade was in an elective class, then the class can be retaken or replaced with another elective class.
4. Students will complete a comprehensive examination which will be an interdisciplinary grant application. That is, this extramural grant proposal will have to have an interdisciplinary team science approach to answer a focused and important health science question. If a student fails the comprehensive examination they will be able to retake it again after a minimum of three months. If they fail a second time they will be separated from the program.
5. Students will also be required to complete a prospectus prior to dissertation in a focused research area. The dissertation committee will have an interdisciplinary element as two of the committee members will be from the chosen sub-plan but the other two committee members will be from outside the sub-plan discipline (one will be the Graduate College Representative). Thus, the committee will have an interdisciplinary membership and will have a stronger voice for a team science approach.
6. Students will complete at least one national/international presentation as a

Course Requirements

**Interdisciplinary Research Core Courses - Credits: 9**

Choose three of the following courses:

HSC 701 - Interdisciplinary Team Science  
HSC 702 - Translational Research Design  
HSC 703 - Interdisciplinary Grant Writing for Health Sciences  
HSC 704 - Selected Applications in Statistics 2  
HSC 705 - Clinical Trial Design And Analysis

**Interdisciplinary Health Seminar - Credits 3**

HSC 710 - Seminar

**Kinesiology Core - Credits: 12**

KIN 752 - Selected Application of Statistical Techniques II  
KIN 789 - Dissertation Prospectus  
And two of the following courses:  
KIN 736 - Biomechanical Applications in Kinesiology  
KIN 740 - Advanced Exercise Physiology  
KIN 760 - Motor Skill Learning and Performance

**Biomechanics Core - Credits: 24**

Select 24 credits from the following courses and/or advisor approved graduate-level coursework.

KIN 656 - Biomechanics of Endurance Performance  
KIN 700 - Special Problems in Kinesiology

KIN 717 - Survey and Analysis of Professional Literature  
KIN 737 - Biomechanics of Strength  
KIN 740 - Advanced Exercise Physiology  
KIN 760 - Motor Skill Learning and Performance  
KIN 765 - Neurophysiology of Movement  
KIN 788 - Independent Study  
DPT 711 - Medical Terminology  
EGG 651 - Ergonomics  
EGG 747 - Orthopedic Biomechanics - Lower Extremities and Spine  
EGG 750 - Analysis of Human Movement

### **Dissertation - Credits: 12**

HSC 711 - Dissertation

### **Degree Requirements**

1. Students must complete 24 credits in the interdisciplinary health sciences core (12 of which are dissertation credits) and must complete 36 credits in the sub-plan core. The minimum credit total in the program is 60 credits.
2. Students must complete the degree with a cumulative GPA >3.0 and graduation must occur within 6 years for students enrolling with master's degrees and 8 years for students enrolling with bachelor's degrees.
3. Grades below B will not be acceptable. If the grade was received in a core class, then the student must retake the class. If a core class was not satisfactorily passed on two attempts, the student will be dismissed from the program. If the grade was in an elective class, then the class can be retaken or replaced with another elective class.
4. Students will complete a comprehensive examination which will be an interdisciplinary grant application. That is, this extramural grant proposal will have to have an interdisciplinary team science approach to answer a focused and important health science question. If a student fails the comprehensive examination they will be able to retake it again after a minimum of three months. If they fail a second time they will be separated from the program.
5. Students will also be required to complete a prospectus prior to dissertation in a focused research area. The dissertation committee will have an interdisciplinary element as two of the committee members will be from the chosen sub-plan but the other two committee

members will be from outside the sub-plan discipline (one will be the Graduate College Representative). Thus, the committee will have an interdisciplinary membership and will have a stronger voice for a team science approach.

6. Students will complete at least one national/international presentation as a platform or a poster from research generated during their Ph.D. program

### **Graduation Requirements**

*See Plan Graduation Requirements*

### **Subplan Requirements 5: Exercise Physiology Track**

Total Credits Required: 60

Course Requirements

#### **Interdisciplinary Research Core Courses - Credits: 9**

Choose three of the following courses:

HSC 701 - Interdisciplinary Team Science  
HSC 702 - Translational Research Design  
HSC 703 - Interdisciplinary Grant Writing for Health Sciences  
HSC 704 - Selected Applications in Statistics 2  
HSC 705 - Clinical Trial Design And Analysis

#### **Interdisciplinary Health Seminar - Credits 3**

HSC 710 - Seminar

#### **Kinesiology Core - Credits: 12**

KIN 752 - Selected Application of Statistical Techniques II  
KIN 789 - Dissertation Prospectus

And two of the following courses:

KIN 736 - Biomechanical Applications in Kinesiology  
KIN 740 - Advanced Exercise Physiology

KIN 760 - Motor Skill Learning and Performance

### **Exercise Physiology Core - Credits: 24**

Select 24 credits from the following courses and/or advisor approved graduate-level coursework.

KIN 607 - Comp & Integrative Med. Nutrition Therapy  
KIN 657 - Physiology of Endurance Performance  
KIN 700 - Special Problems in Kinesiology  
KIN 717 - Survey and Analysis of Professional Literature  
KIN 720 - Issues & Trends in Exercise Physiology  
KIN 738 - Human Physiology  
KIN 739 - Evaluation of Physical Working Capacity  
KIN 744 - Thermoregulation During Physical Work  
KIN 745 - Human Energy Metabolism  
KIN 765 - Neurophysiology of Movement  
KIN 788 - Independent Study  
KIN 7XX - Advanced Sport Nutrition  
KIN 7XX - Experimental Techniques in Nutrition & Metabolism

### **Dissertation - Credits: 12**

HSC 711 - Dissertation

#### **Degree Requirements**

1. Students must complete 24 credits in the interdisciplinary health sciences core (12 of which are dissertation credits) and must complete 36 credits in the sub-plan core. The minimum credit total in the program is 60 credits.
2. Students must complete the degree with a cumulative GPA >3.0 and graduation must occur within 6 years for students enrolling with master's degrees and 8 years for students enrolling with bachelor's degrees.
3. Grades below B will not be acceptable. If the grade was received in a core class, then the student must retake the class. If a core class was not satisfactorily passed on two attempts, the student will be dismissed from the program. If the grade was in an elective class, then the class can be retaken or replaced with another elective class.
4. Students will complete a comprehensive examination which will be an interdisciplinary grant application. That is,

this extramural grant proposal will have to have an interdisciplinary team science approach to answer a focused and important health science question. If a student fails the comprehensive examination they will be able to retake it again after a minimum of three months. If they fail a second time they will be separated from the program.

5. Students will also be required to complete a prospectus prior to dissertation in a focused research area. The dissertation committee will have an interdisciplinary element as two of the committee members will be from the chosen sub-plan but the other two committee members will be from outside the sub-plan discipline (one will be the Graduate College Representative). Thus, the committee will have an interdisciplinary membership and will have a stronger voice for a team science approach.
6. Students will complete at least one national/international presentation as a platform or a poster from research generated during their Ph.D. program

#### **Graduation Requirements**

*See Plan Graduation Requirements*

#### **Subplan Requirements 6: Motor Learning/Control Track**

Total Credits Required: 60

#### **Course Requirements**

##### **Interdisciplinary Research Core Courses - Credits: 9**

Choose three of the following courses:

HSC 701 - Interdisciplinary Team Science  
HSC 702 - Translational Research Design  
HSC 703 - Interdisciplinary Grant Writing for Health Sciences  
HSC 704 - Selected Applications in Statistics 2  
HSC 705 - Clinical Trial Design And Analysis

##### **Interdisciplinary Health Seminar - Credits 3**

HSC 710 - Seminar

##### **Kinesiology Core - Credits: 12**

KIN 752 - Selected Application of Statistical Techniques II  
KIN 789 - Dissertation Prospectus

And two of the following courses:

KIN 736 - Biomechanical Applications in Kinesiology  
KIN 740 - Advanced Exercise Physiology  
KIN 760 - Motor Skill Learning and Performance

### **Motor learning/Control electives - Credits: 24**

Select 24 credits from the following courses and/or advisor approved graduate-level coursework.

KIN 614 - Enhancing Mental and Motor Abilities  
KIN 700 - Special Problems in Kinesiology  
KIN 743 - Research Techniques in Biomechanics  
KIN 746x - Matlab Programming  
KIN 762 - Motor Learning Applications  
KIN 788 - Independent Study  
EGG 750 - Analysis of Human Movement  
PSY 620 - Psychology of Learning  
PSY 701 - Biological Bases of Behavior  
PSY 702 - Sensation and Perception  
PSY 703 - Cognitive Psychology  
PSY 719 - Behavioral Neuroscience  
PSY 720 - Systems and Cognitive Neuroscience  
PSY 741 - Psychology and Health  
PSY 742 - Psychopharmacology  
PSY 744 - Neuropsychology

### **Dissertation - Credits: 12**

HSC 711 - Dissertation

### **Degree Requirements**

1. Students must complete 24 credits in the interdisciplinary health sciences core (12 of which are dissertation credits) and must complete 36 credits in the sub-plan core. The minimum credit total in the program is 60 credits.
2. Students must complete the degree with a cumulative GPA >3.0 and graduation must occur within 6 years for students enrolling with master's degrees and 8 years for students enrolling with bachelor's degrees.

3. Grades below B will not be acceptable. If the grade was received in a core class, then the student must retake the class. If a core class was not satisfactorily passed on two attempts, the student will be dismissed from the program. If the grade was in an elective class, then the class can be retaken or replaced with another elective class.
4. Students will complete a comprehensive examination which will be an interdisciplinary grant application. That is, this extramural grant proposal will have to have an interdisciplinary team science approach to answer a focused and important health science question. If a student fails the comprehensive examination they will be able to retake it again after a minimum of three months. If they fail a second time they will be separated from the program.
5. Students will also be required to complete a prospectus prior to dissertation in a focused research area. The dissertation committee will have an interdisciplinary element as two of the committee members will be from the chosen sub-plan but the other two committee members will be from outside the sub-plan discipline (one will be the Graduate College Representative). Thus, the committee will have an interdisciplinary membership and will have a stronger voice for a team science approach.
6. Students will complete at least one national/international presentation as a platform or a poster from research generated during their Ph.D. program.

### **Graduation Requirements**

See Plan Graduation Requirements

### **Subplan Requirements 7: Health Physics Post-Bachelor's Track**

Total Credits Required: 90

### **Course Requirements**

#### **Interdisciplinary Research Core Courses - Credits: 9**

Choose three of the following courses:

HSC 701 - Interdisciplinary Team Science  
HSC 702 - Translational Research Design  
HSC 703 - Interdisciplinary Grant Writing for Health Sciences  
HSC 704 - Selected Applications in Statistics 2  
HSC 705 - Clinical Trial Design And Analysis

**Interdisciplinary Health Seminar - Credits 3**

HSC 710 - Seminar

**Health Physics Core - Credits: 18**

HPS 602 - Radiation Detection  
HPS 603 - Radiation Physics and Instrumentation Laboratory  
HPS 701 - Applied Nuclear Physics  
HPS 703 - Radiation Interactions and Transport  
HPS 720 - Radiation Dosimetry  
HPS 730 - Advanced Radiation Biology

**Elective Courses - Credits: 48**

Complete 48 credits from the list below and/or other advisor approved graduate-level Health Physics (HPS) courses.

HPS 611 - Health Physics Seminar  
HPS 616 - Advanced Health Physics  
HPS 670 - Environmental Health Physics  
HPS 718 - Radiochemistry Laboratory  
HPS 719 - Introduction to Radioanalytical Chemistry  
HPS 740 - Medical Imaging Physics  
HPS 742 - Radiation Therapy Physics  
HPS 742L - Therapy Physics Clinical Rotation and Lab  
HPS 750 - Radiation Risk Assessment  
HPS 760 - Environmental Restoration and Radioactive Waste Management  
HPS 790 - Radiation Oncology Physics Clinical Internship  
HPS 795 - Independent Study

**Dissertation - Credits: 12**

HSC 711 - Dissertation

**Degree Requirements**

1. Students must complete 24 credits in the interdisciplinary health sciences core (12 of which are dissertation credits) and must complete 36 credits in the sub-plan core. The minimum credit total in the program is 60 credits.
2. Students must complete the degree with a cumulative GPA >3.0 and graduation must occur within 6 years for students enrolling with master's degrees and 8 years for students enrolling with bachelor's degrees.
3. Grades below B will not be acceptable. If the grade was received in a core class, then the student must retake the class. If a core class was not satisfactorily passed on two attempts, the student will be dismissed from the program. If the grade was in an elective class, then the class can be retaken or replaced with another elective class.
4. Students will complete a comprehensive examination which will be an interdisciplinary grant application. That is, this extramural grant proposal will have to have an interdisciplinary team science approach to answer a focused and important health science question. If a student fails the comprehensive examination they will be able to retake it again after a minimum of three months. If they fail a second time they will be separated from the program.
5. Students will also be required to complete a prospectus prior to dissertation in a focused research area. The dissertation committee will have an interdisciplinary element as two of the committee members will be from the chosen sub-plan but the other two committee members will be from outside the sub-plan discipline (one will be the Graduate College Representative). Thus, the committee will have an interdisciplinary membership and will have a stronger voice for a team science approach.
6. Students will complete at least one national/international presentation as a platform or a poster from research generated during their Ph.D. program.

**Graduation Requirements**

*See Plan Graduation Requirements*

**Subplan Requirements 8: Health Physics Post-Master's Track**

Total Credits Required: 60

### Course Requirements

#### Interdisciplinary Research Core Courses - Credits: 9

*Choose three of the following courses:*

HSC 701 - Interdisciplinary Team Science  
HSC 702 - Translational Research Design  
HSC 703 - Interdisciplinary Grant Writing for Health Sciences  
HSC 704 - Selected Applications in Statistics 2  
HSC 705 - Clinical Trial Design And Analysis

#### Interdisciplinary Health Seminar - Credits 3

HSC 710 - Seminar

#### Health Physics Core - Credits: 18

HPS 602 - Radiation Detection  
HPS 603 - Radiation Physics and Instrumentation Laboratory  
HPS 701 - Applied Nuclear Physics  
HPS 703 - Radiation Interactions and Transport  
HPS 720 - Radiation Dosimetry  
HPS 730 - Advanced Radiation Biology

#### Elective Courses - Credits: 18

Complete 18 credits from the list below and/or other advisor approved graduate-level Health Physics (HPS) courses.

HPS 611 - Health Physics Seminar  
HPS 616 - Advanced Health Physics  
HPS 670 - Environmental Health Physics  
HPS 718 - Radiochemistry Laboratory  
HPS 719 - Introduction to Radioanalytical Chemistry  
HPS 740 - Medical Imaging Physics  
HPS 742 - Radiation Therapy Physics  
HPS 742L - Therapy Physics Clinical Rotation and Lab  
HPS 750 - Radiation Risk Assessment

HPS 760 - Environmental Restoration and Radioactive Waste Management  
HPS 790 - Radiation Oncology Physics Clinical Internship  
HPS 795 - Independent Study

#### Dissertation - Credits: 12

HSC 711 - Dissertation

#### Degree Requirements

1. Students must complete 24 credits in the interdisciplinary health sciences core (12 of which are dissertation credits) and must complete 36 credits in the sub-plan core. The minimum credit total in the program is 60 credits.
2. Students must complete the degree with a cumulative GPA >3.0 and graduation must occur within 6 years for students enrolling with master's degrees and 8 years for students enrolling with bachelor's degrees.
3. Grades below B will not be acceptable. If the grade was received in a core class, then the student must retake the class. If a core class was not satisfactorily passed on two attempts, the student will be dismissed from the program. If the grade was in an elective class, then the class can be retaken or replaced with another elective class.
4. Students will complete a comprehensive examination which will be an interdisciplinary grant application. That is, this extramural grant proposal will have to have an interdisciplinary team science approach to answer a focused and important health science question. If a student fails the comprehensive examination they will be able to retake it again after a minimum of three months. If they fail a second time they will be separated from the program.
5. Students will also be required to complete a prospectus prior to dissertation in a focused research area. The dissertation committee will have an interdisciplinary element as two of the committee members will be from the chosen sub-plan but the other two committee members will be from outside the sub-plan discipline (one will be the Graduate College Representative). Thus, the committee will have an interdisciplinary membership and will have a stronger voice for a team science approach.



6. Students will complete at least one national/international presentation as a platform or a poster from research generated during their Ph.D. program.

### **Graduation Requirements**

*See Plan Graduation Requirements*

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's and Doctoral portions of the program.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## **School of Allied Health Sciences**

The School of Allied Health Sciences provides undergraduate and graduate education to students interested in studying one of the many different health sciences curriculums. The curricula are designed to prepare students to readily assume health-related employment opportunities or continue on with further graduate or professional studies. Educational experiences include rigorous classroom instruction, laboratory/clinical practice (on and off campus sites), research opportunities with faculty, and professional mentoring. It is a goal of the School of Allied Health Sciences faculty to produce graduate students who are professionally competent, thoroughly capable of critical thinking, and highly sought after by employers. Graduates will exhibit high ethical professional standards, be devoted to lifelong learning and be prepared to respond to local, regional or national level demands in their fields of study.

*Carolyn Yucha, Ph.D., Dean, School of Allied Health Sciences*

*John A. Mercer, Ph.D., Associate Dean*

## Health Physics & Diagnostic Sciences

Many industries, medical facilities, and research laboratories demand professionals who understand the safe and effective use of radiation and radioactive materials. Health physics is the study of radiation protection, and the safe use of radioactive materials. Our M.S. program provides students with instruction and research opportunities focused in two career paths: Medical Physics, the effective use of radiation for medical imaging and therapy, and Environmental Health Physics, radiation protection, the industrial applications of radiation and radioactive materials, and the behavior and evaluation of radiation in the environment. The Department of Health Physics faculty members look forward to working with prospective students in this challenging program of study.

Health physics is the profession dedicated to the protection of the individual, the population, and the environment from the potentially harmful effects of radiation while allowing society to benefit from all the beneficial applications of radiation and radioactive materials in the modern world. It incorporates the principles and technical skills from many disciplines including: physics, chemistry, biochemistry, biology, mathematics, and ecology.. The wide spectrums of knowledge required of the health physicist make this profession both challenging and rewarding. The Master of Science (M.S.) in Health Physics is designed to prepare students in the fields of health physics and medical physics to administer public and private radiation health programs; investigate medical uses of radioactivity; measure and control radiation in the workplace and the environment; ensure compliance with radiation protection regulations; assist in the cleanup of radioactive and hazardous waste sites; evaluate worker, patient, and public radiation doses; and conduct research in radiation protection, medical imaging, and radiation therapy.

The Master of Science in Health Physics is divided into two sub-plans: Environmental Health Physics and Medical Physics. The Environmental Health Physics sub-plan is accredited by the Applied Science Accreditation Commission of ABET (<http://abet.org>). The Medical Physics sub-plan is accredited by the Commission on Accreditation of Medical Physics Educational Programs (CAMPEP).

*Steen Madsen, Ph.D., Chair*

*Gary Cerefice, Ph.D., Graduate Coordinator*

## Health Physics and Diagnostic Sciences Faculty

### Chair

**Madsen, Steen** - *Full Graduate Faculty*  
Professor; B.S., University of Toronto; M.S., Ph.D.,  
McMaster University . *Rebel since 1997.*

### Graduate Coordinator

**Cerefice, Gary** - *Full Graduate Faculty*  
Assistant Professor; B.S., University of Illinois; M.S.,  
Ph.D., Massachusetts Institute of Technology. *Rebel*  
*since 2009.*

### Graduate Faculty

**Cucinotta, Francis** - *Full Graduate Faculty*  
Professor; B.A. Rutgers, Ph.D. Old Dominion  
University. *Rebel since 2013.*

**Hanson, Eric H.** - *Associate Graduate Faculty*  
B.S., Oregon State University; M.Ph., Uniformed  
Services University of the Health Sciences; M.D.,  
Johns Hopkins University. *Rebel since 2010.*

**Hirschberg, Henry** - *Associate Graduate Faculty*  
B.E.E. City University New York; M.D., Ph.D.,  
University of Oslo, Norway. *Rebel since 2006.*

**Kuang, Yu** - *Full Graduate Faculty*  
Assistant Professor; B.M.E., M.S., Zhejiang  
University; Ph.D., Case Western Reserve University.  
*Rebel since 2012.*

**Ma, Bing** - *Full Graduate Faculty*  
Assistant Professor; B.S. Tsinghua University, M.S.,  
Ph.D. University of Michigan. *Rebel since 2013.*

**Meigooni, Ali S.** - *Associate Graduate Faculty*  
B.S. Tehran University; M.S., Ph.D., Ohio  
University. *Rebel since 2012.*

**Riland, Carson A.** - *Associate Graduate Faculty*  
B.S. Bloomsburg University; M.S., Ph.D. Texas  
A&M University. *Rebel since 1996.*

**Sudowe, Ralf** - *Full Graduate Faculty*  
Associate Professor; Dipl.-Chem, Philipps  
Universitat Marburg, Germany. *Rebel since 2006.*

## Advanced Graduate Certificate in Medical Physics

### Plan Description

The Certificate in Medical Physics is designed to provide individuals holding terminal degrees in physics or a closely related field with the didactic coursework required for eligibility to enter medical physics residency programs. This is a two-semester certificate offering courses in basic radiation sciences and clinical medical physics.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applications for admission must be completed through the Graduate College ApplyYourself online application system.

Applicants must:

1. Hold a terminal degree (Ph.D. or equivalent) in physics or a closely related field,
2. Have an overall GPA of 3.00 in graduate work,
3. Receive a composite score of 310 or higher on the verbal and quantitative sections of the Graduate Record Examination (GRE),
4. Successfully complete an anatomy and physiology course. Applicants not meeting the anatomy and physiology requirement may still be admitted to the program, however, this prerequisite deficiency must be completed during either the first or second semester of study.
5. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 18

Course Requirements

#### Required Courses – Credits: 18

HPS 602 - Radiation Detection  
HPS 703 - Radiation Interactions and Transport  
HPS 720 - Radiation Dosimetry  
HPS 730 - Advanced Radiation Biology  
HPS 740 - Medical Imaging Physics  
HPS 742 - Radiation Therapy Physics

Certificate Requirements

1. Completion of a minimum of 18 credit hours with a minimum GPA of 3.00.
2. Students in the Certificate in Medical Physics must adhere to the Six-year Completion Rule.
3. No credit may be used in an advanced certification program for course work completed more than six calendar years immediately preceding the term in which all certificate requirements are completed.

#### Plan Certificate Completion Requirements

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

## Master of Science - Health Physics

### Plan Description

The Master of Science (M.S.) – Health Physics is designed to prepare students in the field of health physics to administer public and private radiation health programs; investigate medical uses of radioactivity; measure and control radiation in the workplace and the environment; ensure compliance with radiation protection regulations; assist in the cleanup of radioactive and hazardous waste sites; evaluate worker, patient, and public radiation doses; and conduct research in radiation protection.

For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.

Applications available on the UNLV Graduate College website.

Complete the Graduate College online application for admission. Completed applications, official Graduate Record Examination (GRE) scores, one copy of official transcripts from all post-secondary institutions, and all other documents (i.e., recommendation provider information and statement of professional goals) should be uploaded into the online application system.

Students seeking admission to the graduate program in health physics must fulfill the following admission requirements:

1. Overall GPA of 3.00 (A=4.00 or equivalent) in undergraduate work. Applicants with a GPA below 3.00, but not less than 2.75, may be admitted as a graduate provisional student.
2. Successful completion (grade of C or better) of the following course work:
  - a. Seven-semester credits in biology including an introductory modern biology course and one higher level course
  - b. Ten-semester credits in chemistry or geology including a general chemistry sequence and one higher-level course

- c. Eight-semester credits in elementary calculus (mathematics through differential equations is recommended)
  - d. Twelve semester credits in physics including a general physics sequence
  - e. A course in computer programming (an additional course in numerical methods or scientific computing is recommended) Applicants not meeting a limited number (maximum of nine credit hours) of prerequisite requirements may still be admitted to the program. However, prerequisite requirements may still be admitted to the program. However, prerequisite deficiencies must be completed during the first year of study and prior to registering for Thesis or Professional Paper.
3. Completion of a baccalaureate degree in health physics, one of the basic sciences, or in a closely related scientific or engineering field. Applicants holding a degree in a non-related field may be given special consideration if they have completed all prerequisite course work.
  4. Students seeking entry to the medical physics specialization must have a strong foundation in physics and, as such, applicants are required to have either an undergraduate degree in physics or a degree in a related engineering or physical science discipline with course work equivalent to a minor in physics (includes at least three upper level undergraduate physics courses).
  5. A score ranking in the 50th percentile or higher on the verbal and quantitative sections of the Graduate Record Exam (GRE). Tests taken prior to August 2011 require a composite score of 1,000 or higher on the verbal and quantitative sections of the Graduate Record Exam (GRE).
  6. Three letters of recommendation from former instructors or employers that speak to the applicant's potential as a graduate student. Contact information for recommendation providers should be entered into the recommendation page of the online application. Recommenders will then upload their letters directly into the student's online application.

7. A statement of approximately 300 words indicating the student's professional goals and reason for seeking graduate education.
8. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

advisor-approved graduate-level courses.

HPS 750 - Radiation Risk Assessment  
HPS 760 - Environmental Restoration and Radioactive Waste Management

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### Subplan 1 Requirements: Environmental Health Physics

Total Required Credits: 40

Course Requirements

#### Required Courses – Credits: 24

HPS 602 - Radiation Detection  
HPS 603 - Radiation Physics and Instrumentation Laboratory  
HPS 670 - Environmental Health Physics  
HPS 701 - Applied Nuclear Physics  
HPS 703 - Radiation Interactions and Transport  
HPS 720 - Radiation Dosimetry  
HPS 730 - Advanced Radiation Biology  
HPS 611 - Health Physics Seminar

#### Core Courses – Credits: 7

HPS 616 - Advanced Health Physics  
HPS 718 - Radiochemistry Laboratory  
HPS 719 - Introduction to Radioanalytical Chemistry

#### Elective Courses – Credits: 3

Complete 3 credits from the following list of courses, any graduate-level health physics (HPS) courses, or other

### Culminating Experience – Credits: 6

Complete one of the following:

HPS 797 - Thesis  
HPS 796 - Professional Paper

### Plan Degree Requirements

1. Maintain a cumulative grade point average of 3.00 or above each semester enrolled.
2. Receive a grade of B (3.00) or above in all core health physics courses. If less than a B is earned, the course may be repeated. The student must be in good standing to repeat a course, and any core course may be repeated only once.
3. In consultation with his/her advisor, a student will organize an advisory committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
4. Pass the comprehensive oral examination. The comprehensive oral exam will be taken by all students after completion of the second semester of enrollment in the program. The exam will be pass/fail. Students who fail the exam may re-take the exam at the end of their third semester of enrollment. Students who fail their second attempt will be separated from the program. Students may not defend their thesis prospectus or proceed with their professional paper until successful completion of the oral exam. The exam will be administered by the graduate faculty from Health Physics.
5. Continuously register for three credit hours of thesis or professional paper each semester while working on the thesis or professional paper until completion.

6. Credit by Challenge Examination: Graduate courses in the Health Physics program may not be challenged for credit.
7. Allotment of Credits: Students have a choice of catalog under which they wish to graduate
  - a. The year of official matriculation, or
  - b. The year of graduation
  - c. Students are encouraged to meet the requirements of the current catalog.
8. A final oral examination will be held following completion of the thesis or professional paper resulting from a research project. The final examination must be held by the Graduate College deadline in the term in which the student plans to complete the degree requirements.

### Graduation Requirements

*See Plan Graduation Requirements below.*

### Subplan 2 Requirements: Medical Physics

Total Required Credits: 40

Course Requirements

#### Required Courses – Credits: 21

HPS 602 - Radiation Detection  
 HPS 603 - Radiation Physics and Instrumentation Laboratory  
 HPS 701 - Applied Nuclear Physics  
 HPS 703 - Radiation Interactions and Transport  
 HPS 720 - Radiation Dosimetry  
 HPS 730 - Advanced Radiation Biology  
 HPS 611 - Health Physics Seminar - (three times)

#### Core Courses – Credits: 13

HPS 740 - Medical Imaging Physics  
 HPS 740L - Diagnostic Medical Physics Clinical Rotation and Laboratory  
 HPS 742 - Radiation Therapy Physics  
 HPS 742L - Therapy Physics Clinical Rotation and Lab  
 HPS 795 - Independent Study

### Culminating Experience –Credits: 6

Complete one of the following:

HPS 797 - Thesis  
 HPS 796 - Professional Paper

### Plan Degree Requirements

1. Maintain a cumulative grade point average of 3.00 or above each semester enrolled.
2. Receive a grade of B (3.00) or above in all core health physics courses. If less than a B is earned, the course may be repeated. The student must be in good standing to repeat a course, and any core course may be repeated only once.
3. In consultation with his/her advisor, a student will organize an advisory committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
4. Pass the comprehensive oral examination. The comprehensive oral exam will be taken by all students after completion of the second semester of enrollment in the program. The exam will be pass/fail. Students who fail the exam may re-take the exam at the end of their third semester of enrollment. Students who fail their second attempt will be separated from the program. Students may not defend their thesis prospectus or proceed with their professional paper until successful completion of the oral exam. The exam will be administered by the graduate faculty from Health Physics.
5. Continuously register for three credit hours of thesis or professional paper each semester while working on the thesis or professional paper until completion.
6. Credit by Challenge Examination: Graduate courses in the Health Physics program may not be challenged for credit.
7. Allotment of Credits: Students have a choice of catalog under which they wish to graduate
  - a. The year of official matriculation, or
  - b. The year of graduation

- c. Students are encouraged to meet the requirements of the current catalog.
8. A final oral examination will be held following completion of the thesis or professional paper resulting from a research project. The final examination must be held by the Graduate College deadline in the term in which the student plans to complete the degree requirements.

### **Graduation Requirements**

*See Plan Graduation Requirements below.*

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis or professional paper by the posted deadline. The thesis defense must be advertised and is open to the public.
3. If a thesis is completed, the student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Doctor of Medical Physics

### Plan Description

The doctor of medical physics degree is a 4-year entry-level professional program designed to provide individuals with appropriate baccalaureate degrees the knowledge and skills required to practice medical physics in a clinical setting. Upon receiving this degree, students will be eligible to sit for the licensure examinations in medical physics. The program of study consists of 80 credit hours of graduate course work divided into classroom, clinical and research activities. During the first 5 semesters in the program, students take courses emphasizing the fundamental principles of radiological sciences and medical physics. The last six semesters consist of clinical rotations in radiation oncology clinics and/or hospitals where students are involved with all aspects of clinical medical physics including dosimetry and treatment planning, external beam physics, brachytherapy, quality assurance and special procedures.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Students seeking admission to the DMP program must fulfill the following admission requirements:

1. Overall GPA of 3.0/4.0 (B average) in undergraduate work. Applicants with a GPA below 3.0 but not less than 2.75 may be admitted as provisional students.
2. Bachelor's Degree in Physics, Applied Physics, Physical Science, or Engineering (with an equivalent of a minor in physics) from an accredited college or university.
3. Applicants with a master's degree from an accredited medical physics program who meet the entrance requirements may be considered for admission to the program. In addition, these applicants must have taken the American Board of Radiology (ABR) part 1 exam as a condition for admission to the program. These students will be required to take an additional 20 credits of electives

(determined by the Health Physics Graduate faculty).

4. A score ranking in the 50th percentile or higher on the verbal and quantitative sections of the Graduate Record Examination (GRE).
5. Three letters of recommendation from former instructors or employers that speak to the applicant's potential as a graduate student. The individual writing the letter may use the form available from the Graduate College, which includes a release form for the student to sign.
6. A statement of approximately 300 words indicating the student's professional goals and reason for seeking graduate education.
7. International applicants whose native language is not English must show competency in the English language before they can be admitted. A satisfactory score (minimum 550 on the written version or 213 on the computerized version) on the "Test of English as a Foreign Language" (TOEFL) or comparable evidence of competency in English must be submitted by students as part of their application.
8. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

### Plan Requirements

*See Subplan Requirements below.*

#### Subplan 1 Requirements: Post-Bachelor's Track

Total Credits Required: 80

#### Course Requirements

##### Fall Semester 1st Year Courses - Credits: 10

HPS 676 - Sectional Anatomy in Medical Imaging  
HPS 701 - Applied Nuclear Physics  
HPS 730 - Advanced Radiation Biology  
HPS 611 - Health Physics Seminar

##### Spring Semester 1st Year Courses - Credits: 9



HPS 703 - Radiation Interactions and Transport  
HPS 602 - Radiation Detection  
HPS 603 - Radiation Physics and Instrumentation Laboratory

**Summer Semester 1st Year Courses - Credits: 6**

HPS 790 - Radiation Oncology Physics Clinical Internship

**Fall Semester 2nd Year Courses - Credits: 7**

HPS 720 - Radiation Dosimetry  
HPS 742 - Radiation Therapy Physics  
HPS 611 - Health Physics Seminar

**Spring Semester 2nd Year Courses - Credits: 8**

HPS 740 - Medical Imaging Physics  
HPS 742L - Therapy Physics Clinical Rotation and Lab  
HPS 611 - Health Physics Seminar  
HPS 792 - Ethics for Medical Physicists

**Summer Semester 2nd Year Courses - Credits: 6**

HPS 770 Radiation Therapy Physics: External Beam

**Fall Semester 3rd Year Courses - Credits: 6**

HPS 771 - Dosimetric Aspects of Radiation Therapy I

**Spring Semester 3rd Year Courses - Credits: 6**

HPS 772R: Radiation Therapy Physics: Brachytherapy

**Summer Semester 3rd Year Courses - Credits: 6**

HPS 773 - Dosimetric Aspects of Radiation Therapy II

**Fall Semester 4th Year Courses - Credits: 8**

HPS 774 - Clinical Medical Physics  
HPS 794 - Clinical Physics Research

**Spring Semester 4th Year Courses - Credits: 8**

HPS 775 - Clinical Medical Physics II: Special Procedures  
HPS 794: Clinical Physics Research

**Degree Requirements**

1. Maintain a cumulative GPA of 3.0/4.0 or above each semester enrolled.
2. Receive a grade of B (3.0) or above (or satisfactory, where applicable) in all courses. If less than a B (or unsatisfactory) is earned, the course may be repeated. The student must be in good standing to repeat a course, and any course may be repeated only once.
3. Complete a minimum of six semester hours in each calendar year.
4. Students entering the program with a B.S. degree have the option of leaving the program with a masters degree after successful completion of all non-clinical coursework. These students are required to take an additional credits of professional paper (HPS 796) of thesis (HPS 797) in order to satisfy the research component of the masters degree.
5. A minimum of 80 credit hours is required for graduation from the DMP program (60 credits for students admitted with a masters degree).

**Subplan 2 Requirements: Post-Master's Track**

Total Credits Required: 60

Course Requirements

**Fall Semester 1st Year Courses - Credits: 10**

10 Credits of Advisor Approved Electives.

**Spring Semester 1st Year Courses -**

**Credits: 10**

10 Credits of Advisor Approved Electives.

**Summer Semester 1st Year Courses - Credits: 6**

HPS 770 Radiation Therapy Physics: External Beam

**Fall Semester 2nd Year Courses - Credits: 6**

HPS 771 - Dosimetric Aspects of Radiation Therapy I

**Spring Semester 2nd Year Courses - Credits: 6**

HPS 772R: Radiation Therapy Physics: Brachytherapy

**Summer Semester 2nd Year Courses - Credits: 6**

HPS 773 - Dosimetric Aspects of Radiation Therapy II

**Fall Semester 3rd Year Courses - Credits: 8**

HPS 774 - Clinical Medical Physics  
HPS 794 - Clinical Physics Research

**Spring Semester 3rd Year Courses - Credits: 8**

HPS 775 - Clinical Medical Physics II: Special Procedures  
HPS 794: Clinical Physics Research

3. Complete a minimum of six semester hours in each calendar year.
4. Students entering the program with a B.S. degree have the option of leaving the program with a masters degree after successful completion of all non-clinical coursework. These students are required to take an additional credits of professional paper (HPS 796) of thesis (HPS 797) in order to satisfy the research component of the masters degree.
5. A minimum of 80 credit hours is required for graduation from the DMP program (60 credits for students admitted with a masters degree).

**Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully present his/her final research project by the posted deadline. The presentation must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted research project to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

**Degree Requirements**

1. Maintain a cumulative GPA of 3.0/4.0 or above each semester enrolled.
2. Receive a grade of B (3.0) or above (or satisfactory, where applicable) in all courses. If less than a B (or unsatisfactory) is earned, the course may be repeated. The student must be in good standing to repeat a course, and any course may be repeated only once.

## Health Physics & Diagnostic Sciences Courses

### HPS 602 - Radiation Detection

Credits 3

Provides a basic understanding of dosimetry and radiation detection. Energy loss through the interaction of radiation with matter. Differing types of spectroscopy, electronics, and instrumentation involved in radiation detection. Statistics, errors, and interpretation encountered in data collection.

**Note** This course is crosslisted with HPS 402. Credit at the 600-level requires additional work.

### HPS 603 - Radiation Physics and Instrumentation Laboratory

Credits 3

Laboratory experiments in basic radiation physics and detection. Includes operation and calibration of survey instruments and gas-filled counters. Theory and operation of alpha and gamma spectrometry equipment and liquid scintillation counters.

Laboratories and discussions on counting statistics and basic electronics.

**Note** This course is crosslisted with HPS 403. Credit at the 600-level requires additional work.

### HPS 611 - Health Physics Seminar

Credits 1

Forum for students, faculty, and/or invited speakers to present research activities, current events, market issues, and new products in the area of health physics.

**Same as** HPS 411

**Note** May be repeated for a maximum of three credits.

### HPS 616 - Advanced Health Physics

Credits 3

Solutions to problems pertaining to radiation safety in the environment, industry, medical facilities, and nuclear reactors. Topics include shielding, accelerators, radon, non-ionizing radiation, and radiation dose-effect.

**Prerequisites** HPS 300 and HPS 402, or equivalent.

### HPS 670 - Environmental Health Physics

Credits 3

Cosmic and terrestrial radiation sources. Emphasis on

TENORM, radon and pathway modeling. Topics include environmental regulations, nuclear fuel cycle, nuclear weapons testing and accidents, geohydrology and geochemistry.

**Note** This course is crosslisted with HPS 470. Credit at the 600-level requires additional work.

### HPS 676 - Sectional Anatomy

Credits 3

Sectional anatomy of organs and systems is presented using medical imaging modalities such as magnetic resonance imaging, computed tomography, single photon emission computed tomography, positron emission tomography and ultrasound.

### HPS 680 - Industrial Hygiene

Credits 3

This course has been approved for graduate credit. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Prerequisites** BIOL 189 or CHEM 122

### HPS 701 - Applied Nuclear Physics

Credits 3

Atomic and nuclear structure; decay energetics and kinetics; interactions of radiation with matter; radiation protection standards; practical aspects of radiation protection; photon, neutron, beta and X-ray shielding; criticality; radiation protection at reactors, accelerators and medical facilities; radioactive material transportation regulations.

### HPS 703 - Radiation Interactions and Transport

Credits 3

Decay energetics and kinetics; interactions of radiation with matter, radiation protection standards; practical aspects of radiation protection; photon, neutron, beta, and x-ray shielding, radioactive material transportation regulations, radiation transport

**Prerequisites** HPS 701.

### HPS 718 - Radiochemistry Laboratory

Credits 3

Laboratory experiments in radiation detection, counting statistics and radiochemical separations are discussed. The operation and calibration of alpha- and gamma-ray spectrometry equipment and liquid scintillation counters will be examined.

Radiochemical separation and analysis of environmental samples are performed. Novel and standard procedures for sample examination will be covered.

**Prerequisites** Consent of instructor.

**Corequisite** HPS 602

HPS 719 - Introduction to Radioanalytical Chemistry  
Credits 1

Introduction to the principles and concepts of radioanalytical chemistry, such as the use of tracers, carriers and spikes and isotope dilution analysis. Sample preparation and techniques for radioanalytical separations and source preparation. Differences between macro chemistry and tracer chemistry.

**Prerequisites** HPS 602.

HPS 720 - Radiation Dosimetry

Credits 3

Mathematical treatment of the fundamental principles of internal and external radiation dosimetry. Pathway models and bioassay techniques studied to support the calculation of radiation dose from the intake of radioactivity. General external dosimetry from a variety of industrial and medical sources is addressed.

**Prerequisites** HPS 701 or consent of instructor.

HPS 730 - Advanced Radiation Biology

Credits 3

Topics covered include: physics and chemistry of radiation absorption, cell survival curves, repair of radiation damage, radiation carcinogenesis, risk assessment models, cancer biology, model tumor systems, and dose fractionation in radiotherapy.

HPS 740 - Medical Imaging Physics

Credits 3

Conceptual, mathematical, and diagnostic aspects of commonly used clinical imaging modalities including film-screen radiography, computed tomography, magnetic resonance imaging, single photon emission computed tomography, positron emission tomography, and ultrasound.

**Prerequisites** HPS 701 or consent of instructor.

HPS 740L - Diagnostic Medical Physics Clinical  
Rotation and Laboratory

Credits 3

Covers the quality control and assurance aspects of commonly used clinical diagnostic modalities including film-screen and digital radiography, mammography, computed tomography, magnetic resonance imaging, single photon emission computed tomography (SPECT), and positron emission tomography (PET).

**Prerequisites** HPS 701

**Corequisite** HHPS 740 or consent of instructor.

HPS 742 - Radiation Therapy Physics

Credits 3

Use of ionizing and nonionizing radiation in radiation therapy to cause controlled biological effects in cancer patients. Emphasis on external treatment techniques using photon and electron beams, internal treatment techniques, and treatment planning.

**Prerequisites** HPS 701 or consent of instructor.

HPS 742L - Therapy Physics Clinical Rotation and  
Lab

Credits 3

An introductory course dealing with the practical aspects of clinical therapeutic physics. Labs will be performed in a clinical setting and students will be introduced to the technology and procedures commonly encountered in a modern radiation therapy facility.

**Prerequisites** HPS 742.

HPS 750 - Radiation Risk Assessment

Credits 3

Descriptive and mathematical treatment of radionuclide transport, bioaccumulation, and human uptake.

**Note** Risk analyses based on recent epidemiological studies reviewed.

**Prerequisites** HPS 670 or consent of instructor.

HPS 760 - Environmental Restoration and  
Radioactive Waste Management

Credits 3

Introduction to the nuclear fuel cycle and management of nuclear waste. Introduction to repository design and performance assessment. Overview of waste form performance, contaminant transport, and risk assessment as applied to nuclear waste management.

**Prerequisites** HPS 701 or consent of instructor.

HPS 772 - Environmental Radiation Measurements  
Credits 3

Laboratory sessions provide practical experience with techniques to evaluate the presence of radioactivity in environmental media. Topics include environmental radiation sources, environmental monitoring plans, sample collection and analysis, in-situ gamma-ay spectrometry, data interpretation and laboratory quality control.

**Note** One hour lecture and three hours laboratory.

**Prerequisites** HPS 670 and HPS 718 or consent of instructor.

HPS 790 - Radiation Oncology Physics Clinical Internship  
Credits 1-3

Overview of clinical radiation oncology physics techniques including treatment planning, linear accelerator operation, commissioning and quality assurance, dose calibration and on-board imaging.

**Note** May be repeated to a maximum of six credits.

HPS 791 - Graduate Seminar  
Credits 1

Forum for students, faculty, and/or invited speakers to present research activities, current events, market issues, and new products in the area of health physics.

**Same as** HPS 611

**Note** Repeatable up to 3 credits.

**Grading** Letter grade.

HPS 792 - Ethics for Medical Physicists  
Credits 1

Overview of the attributes and nuances of ethics and professionalism that are essential to the practice of medical physics.

HPS 795 - Independent Study  
Credits 1 – 3

Individual directed study of a topic in health physics not covered in depth in other courses.

**Note** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing in health physics and consent of instructor.

HPS 796 - Professional Paper  
Credits 3

Discussion of the components of a research proposal, writing a research proposal, and conducting pilot

projects.

**Note** May be repeated but only six credits applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** HPS 620, HPS 701, graduate standing in health physics, and consent of instructor.

HPS 797 - Thesis  
Credits 3

**Note** May be repeated but only six credits applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** HPS 620, HPS 701, graduate standing in health physics, and consent of instructor.

## **Kinesiology & Nutrition Sciences**

Kinesiology is the study of human movement as it relates to human performance. The graduate degrees offered by the Department of Kinesiology and Nutrition Sciences are designed to prepare students for advanced study in biomedical sciences, clinical positions, and leadership positions in instituting physical fitness programs in public and private organizations. The department is committed to an interdisciplinary approach to professional preparation and scholarship and to creating an environment in which both basic and applied research in the field of kinesiology is stimulated. Comprehensive laboratories have been developed for the study of human performance, injury rehabilitation, and skill acquisition.

Students are afforded the opportunity to work closely with faculty in all areas of academics and research. The faculty are recognized internationally through their scholarship and research and are enthusiastically committed to graduate education.

Department of Kinesiology and Nutrition Sciences offers programs of study that lead to a Master of Science degree in Exercise Physiology or Kinesiology. These degree programs allow students a choice of preparation and opportunities to specialize in biomechanics, exercise physiology, motor learning/motor control and sports medicine. The goal of the graduate program in kinesiology is to provide students with the theory, knowledge, and skills necessary to apply the principles of human movement in a variety of community, research, clinical, or athletic settings, or to pursue advanced study at the doctoral level.

***Richard Tandy, Ph.D., Chair***

***Mark Guadagnoli, Ph.D., Graduate Coordinator***

## **Kinesiology and Nutrition Sciences Faculty**

### **Chair**

**Tandy, Richard D.** - *Full Graduate Faculty Associate Professor; B.S., Appalachian State University; M.S., Ph.D., Texas A&M University. Rebel since 1989.*

### **Graduate Coordinator**

**Guadagnoli, Mark A.** - *Full Graduate Faculty Professor; B.S., M.S., Texas A&M University; Ph.D., Auburn University. Rebel since 1991.*

### **Graduate Admissions Coordinator**

**Wulf, Gabriele** - *Full Graduate Faculty Professor; Diploma, Ph.D., Deutsche Sporthochschule Koln; Ph.D., University of Munich. Rebel since 2001.*

### **Graduate Faculty**

**Dufek, Janet S.** - *Full Graduate Faculty Associate Research Professor, B.S. University of Wisconsin, Superior; M.S. Illinois State University; Ph.D. University of Oregon. Rebel since 2002.*

**Golding, Lawrence A.** - *Full Graduate Faculty Distinguished Professor; B.S., M.S., Ph.D., University of Illinois. Rebel since 1976.*

### **Holcomb, William R.**

*Associate Professor; B.S. Berry College; M.S. U.S. Sports Academy; Ph.D. Auburn University. Rebel since 2001.*

### **Kruskall, Laura J.** - *Full Graduate Faculty*

*Associate Professor; B.A. Mount Saint Mary College; M.S. Columbia University; Ph.D. Pennsylvania State University. Rebel since 1999.*

### **Mangus, Brent C.**

*Associate Professor; B.S., Utah State University; M.S., University of Oregon; Ed.D., University of Utah. Rebel since 1985.*

### **Mercer, John** - *Full Graduate Faculty*

*Associate Professor; B.S., Buffalo State College of*

New York; M.S., University of North Texas; Ph.D., University of Oregon. *Rebel since 1999.*

**Rubley, Mack**

Assistant Professor; B.S., University of Colorado; M.S., Pennsylvania State University; Ph.D., Brigham Young University. *Rebel since 2001.*

**Young, John C. - Full Graduate Faculty**

Professor; B.S.Ed., M.S., University of Michigan; Ph.D., University of Wisconsin, Madison. *Rebel since 1991.*

## Master of Science - Exercise Physiology

### Plan Description

The Master of Science – Exercise Physiology is designed to provide the student with an understanding of the physiological effects of exercise on the human body. The program also emphasizes the effect of regular exercise on adults and offers students experience in conducting physical fitness evaluations, and exercise testing. In addition, the graduate is prepared for entrance into a doctoral program in exercise physiology.

The program emphasizes academic preparation in exercise physiology, laboratory experience, knowledge of research methodology, and statistics. Students must complete a thesis in the general area of exercise physiology.

For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Students are admitted in the fall, spring, and summer semesters. Applicants for admission must have an undergraduate major in kinesiology, exercise science, physical education, athletic training, biology, nutrition, or a related academic discipline.

Applicants must have a minimum overall undergraduate grade point average of 2.75 (A=4.0), or 3.00 (A=4.0) in the last two years. The Graduate Record Examination must be taken prior to applying. Successful applicants generally have a 3.00 undergraduate grade point average and a combined score of 300 on verbal and quantitative sections of the GRE and higher than 3.5 on the analytical section

Interested applicants must send the following information to the Graduate College:

1. A completed application for graduate studies.
2. Official transcripts of all colleges and universities attended.

Interested applicants must upload the following information into the Apply Yourself system:

1. Copies of all transcripts sent to the Graduate College.
2. Official GRE scores.
3. A letter of intent that addresses: Reason(s) for wishing to earn an advanced degree. Motivation for attending UNLV. Summary of educational goals. Summary of research activities and interests. Possible faculty mentors.
4. Two letters of recommendation from persons familiar with the applicant's academic record and potential for graduate study.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.

### **Plan Requirements**

Total Required Credits: 33

### **Course Requirements**

#### **Required Courses – Credits: 12**

KIN 605 - Sports Nutrition  
KIN 738 - Human Physiology  
KIN 739 - Evaluation of Physical Working Capacity  
KIN 740 - Advanced Exercise Physiology

#### **Research Courses – Credits: 6**

KIN 750 - Research Methods  
KIN 751 - Selected Application of Statistical Techniques I

#### **Elective Courses – Credits: 9**

Complete 9 credits of advisor-approved elective coursework.

#### **Thesis –Credits: 6**

KIN 749 – Thesis

### **Degree Requirements**

1. Completion of a minimum of 33 credit hours with a minimum GPA of 3.00.
2. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.



## Master of Science - Kinesiology

### Plan Description

The Master of Science – Kinesiology is designed for students interested in the study of human performance. Students are provided with the theoretical foundations of the movement-based sciences and select an emphasis in biomechanics, motor learning/control, or sports medicine. Through involvement in directed research projects, students obtain an in-depth understanding of laboratory equipment research and applications in the biomedical sciences. Graduates are prepared to make applications of the movement sciences in research, clinical or athletic settings and for entrance into doctoral programs in kinesiology.

For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Students are admitted in the fall, spring, and summer semesters. Applicants for admission must have an undergraduate major in kinesiology, exercise science, physical education, athletic training, biology, nutrition, or a related academic discipline.

Applicants must have a minimum overall undergraduate grade point average of 2.75 (A=4.0), or 3.00 (A=4.0) in the last two years. The Graduate Record Examination (GRE) must be taken prior to applying. Successful applicants generally have a 3.00 undergraduate grade point average and a combined score of 300 on verbal and quantitative sections of the GRE and higher than 3.5 on the analytical section. Interested applicants must send the following information to the Graduate College:

1. A completed application for graduate studies.
2. Official transcripts of all colleges and universities attended.

Interested applicants must upload the following information into the Apply Yourself system:

1. Copies of all transcripts sent to the Graduate College.
2. Official GRE scores.

3. A letter of intent that addresses: Reason(s) for wishing to earn an advanced degree. Motivation for attending UNLV. Summary of educational goals. Summary of research activities and interests. Possible faculty mentors.
4. Two letters of recommendation from persons familiar with the applicant's academic record and potential for graduate study.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.

### Plan Requirements

*See Subplan Requirements below.*

#### Subplan 1 Requirements: Thesis Track

Total Credits Required: 33

#### Course Requirements

##### Biomechanics Course – Credits: 3

Complete one of the following courses:

KIN 656 - Biomechanics of Endurance Performance  
KIN 736 - Biomechanical Applications in Kinesiology  
KIN 737 - Biomechanics of Strength  
KIN 743 - Research Techniques in Biomechanics

##### Motor Learning/Motor Control Course – Credits: 3

Complete one of the following courses:

KIN 760 - Motor Skill Learning and Performance  
KIN 761 - Human Motor Control  
KIN 762 - Motor Learning Applications

##### Exercise Physiology Course – Credits: 3

Complete one of the following courses:

KIN 605 - Sports Nutrition  
KIN 657 - Physiology of Endurance Performance  
KIN 691 - Exercise Physiology  
KIN 692 - Clinical Exercise Physiology  
KIN 738 - Human Physiology  
KIN 739 - Evaluation of Physical Working Capacity  
KIN 740 - Advanced Exercise Physiology  
KIN 744 - Thermoregulation During Physical Work  
KIN 745 - Human Energy Metabolism

### **Research Courses – Credits: 6**

KIN 750 - Research Methods  
KIN 751 - Selected Application of Statistical Techniques I

### **Specialization Courses – Credits: 9**

Complete 9 credits of advisor-approved coursework. Research opportunities and course work are available in biomechanics, motor learning/motor control, and sports medicine.

### **Elective Courses – Credits: 3**

Complete 3 credits of advisor-approved elective coursework.

### **Thesis – Credits: 6**

KIN 749 - Thesis

### **Degree Requirements**

1. Completion of a minimum of 33 credit hours with a minimum GPA of 3.00.
2. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

### **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 2 Requirements: Non-Thesis Track**

Total Credits Required: 33

### **Course Requirements**

#### **Biomechanics Course – Credits: 3**

Complete one of the following courses:

KIN 656 - Biomechanics of Endurance Performance  
KIN 736 - Biomechanical Applications in Kinesiology  
KIN 737 - Biomechanics of Strength  
KIN 743 - Research Techniques in Biomechanics

#### **Motor Learning/Motor Control Course – Credits: 3**

Complete one of the following courses:

KIN 760 - Motor Skill Learning and Performance  
KIN 761 - Human Motor Control  
KIN 762 - Motor Learning Applications

#### **Exercise Physiology Course – Credits: 3**

Complete one of the following courses:

KIN 605 - Sports Nutrition  
KIN 657 - Physiology of Endurance Performance  
KIN 691 - Exercise Physiology  
KIN 692 - Clinical Exercise Physiology  
KIN 738 - Human Physiology  
KIN 739 - Evaluation of Physical Working Capacity  
KIN 740 - Advanced Exercise Physiology  
KIN 744 - Thermoregulation During Physical Work  
KIN 745 - Human Energy Metabolism

#### **Research Courses – Credits: 6**

KIN 750 - Research Methods  
KIN 751 - Selected Application of Statistical  
Techniques I

### **Specialization Courses – Credits: 9**

Complete 9 credits of advisor-approved coursework. Research opportunities and course work are available in biomechanics, motor learning/motor control, and sports medicine.

### **Elective Courses – Credits: 6**

Complete 6 credits of advisor-approved elective coursework.

### **Professional Paper – Credits: 3**

KIN 748 - Professional Paper

### **Degree Requirements**

1. Completion of a minimum of 33 credit hours with a minimum GPA of 3.00.
2. In consultation with his/her advisor, a student will organize a committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

### **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete a professional paper.

### **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## **Doctor of Philosophy – Kinesiology**

### **Plan Description**

The Ph.D. program is designed specifically for professionals who desire tenure-track research, teaching, and administrative positions in postsecondary education. The Ph.D. program offers academic concentrations in Biomechanics, Exercise Physiology, and Motor Behavior.

### **Learning Objectives**

1. Kinesiology Content Knowledge: demonstrate a broad conceptual knowledge of the Kinesiology field of study and develop related disciplinary content knowledge expertise in Biomechanics, Exercise Physiology, or Motor Behavior.
2. Effectively communicate knowledge in the discipline: Demonstrate the ability to write and speak about current scholarship and issues of the discipline to peers, practitioners, and the public.
3. Research Design: understand concepts pertinent to experimental research design relative to controlling internal and external threats to validity.
4. Research Methods: understand and applying sound scientific methodology to pursue a research question.

For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Admission to doctoral study will be granted to qualified applicants based on a combination of the following:

1. A master's degree from an accredited college or university
2. Official copies of all postsecondary transcripts
3. Professional vita or resume
4. Evidence of writing ability with appropriate examples including excerpt from a master's

thesis, professional paper, or published article

5. Three letters of recommendation from previous instructors and/or professional colleagues attesting to the applicant's ability to complete a doctoral program of study
6. A detailed statement explaining why the student desires admission to the program
7. A personal interview with the department graduate faculty.
8. Satisfactory GRE test scores (taken within five years from the date of application for admission)

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

### **Admission Process**

1. Contact the Department of Kinesiology prior to applying for admission.
2. Applications for the Ph.D. program will be considered once per year and deadline for receipt of application is March 1.
3. The online admissions application, fees, and transcripts should be submitted to the Graduate College. Further admission and application information may be obtained from the UNLV Graduate College website at:  
<http://graduatecollege.unlv.edu/admissions>.
4. Three letters of recommendation, professional resume or vita, GRE scores, official copies of all college transcripts, evidence of writing ability (e.g., excerpt from masters' thesis, professional paper or published article), a detailed statement explaining why the student desires admission, and a statement demonstrating evidence of professional/ educational compatibility with program goals should be submitted through the online application system.
5. As a final step in the admission process, a personal interview with the graduate faculty will be conducted.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Required Credits: 66

### **Course Requirements**

#### **Content Knowledge Courses – Credits: 18**

Complete 18 credits from the following course, or other advisor-approved courses.

KIN 747 - Graduate Seminar

#### **Cognate Area Courses – Credits: 18**

Select two advisor-approved cognate areas and complete 9 credits of coursework in each area.

##### *Biomechanics*

KIN 615 - Introduction to Forensic Kinesiology  
KIN 656 - Biomechanics of Endurance Performance  
KIN 736 - Biomechanical Applications in Kinesiology  
KIN 737 - Biomechanics of Strength  
KIN 743 - Research Techniques in Biomechanics

##### *Motor Behavior*

KIN 614 - Enhancing Mental and Motor Abilities  
KIN 760 - Motor Skill Learning and Performance  
KIN 761 - Human Motor Control  
KIN 762 - Motor Learning Applications

##### *Exercise Physiology*

KIN 605 - Sports Nutrition  
KIN 657 - Physiology of Endurance Performance  
KIN 691 - Exercise Physiology  
KIN 692 - Clinical Exercise Physiology  
KIN 738 - Human Physiology  
KIN 739 - Evaluation of Physical Working Capacity  
KIN 740 - Advanced Exercise Physiology  
KIN 744 - Thermoregulation During Physical Work  
KIN 745 - Human Energy Metabolism

##### *Sports Medicine*

KIN 695 - Sports Medicine  
KIN 730 - Organization and Administration of Athletic Training  
KIN 731 - Orthopedic Assessment in Sports

Medicine

KIN 733 - Psychological Aspects of Sport and Rehabilitation

KIN 734 - Therapeutic Intervention in Sports Medicine

KIN 735 - Sports Medicine Rehabilitation Principles and Practices

### **Research Methodology Courses – Credits: 15**

Complete 15 credits from the following list of courses, or other advisor-approved courses.

KIN 750 - Research Methods

KIN 751 - Selected Application of Statistical Techniques I

KIN 752 - Selected Application of Statistical Techniques II

### **Prospectus Course – Credits: 3**

PED 796 - Dissertation Prospectus

### **Dissertation – Credits: 12**

KIN 799 - Dissertation

### **Degree Requirements**

1. Completion of a minimum of 66 credit hours with a minimum GPA of 3.00.
2. Scholarly Product Requirement – each student must satisfy a scholarly product requirement. This requirement can be met in one of two ways:
  - a. Students may submit a research study to a refereed journal for publication.
  - b. Students may submit a proposal for presentation of research at an annual conference of a national organization.
3. Student Advisory Committees - Students are required to select a graduate advisory committee by the end of their second semester.
  - a. Advisory committees must consist of three Kinesiology graduate faculty members (one of which can be an associate graduate faculty member) and a graduate college representative from outside of the department.

- b. The chair of the advisory committee must be a graduate faculty member in the Department of Kinesiology.
  - c. Advisory committees should be informed prior to the student's completion of 16 credit hours.
  - d. The committee oversees the student's progress, including the comprehensive exams.
  - e. A temporary advisor is assigned until the student becomes acquainted with the faculty and selects his/her advisory committee.
4. Comprehensive Examination – the student takes the comprehensive examination during the semester immediately preceding enrollment in dissertation.
  - a. The comprehensive examination consists of six questions in which the student is allotted two hours per question. Questions are constructed and scored by the student's advisory committee.
  - b. Students must file intent to take comprehensive examinations, adhering to timelines cited for other graduate programs scheduled by the Graduate College and the Department of Kinesiology. Students may petition the Kinesiology Graduate Faculty for permission to take comprehensive examinations pending approval of the advisory committee.
  - c. The questions on the comprehensive examination address elements of content knowledge, research methodology, and related discipline electives. The student's advisory committee provides general parameters from which questions are selected. "Take-home" examinations, in whole or in part, are not allowed. Students may use college provided technology for word-processing. Grading consists of two categories: Pass and Fail.
  - d. Upon receiving a passing grade for the written comprehensive examination, students will be required to pass an oral examination by their respective advisory committees. Students must successfully complete the

written and oral comprehensive examinations before enrolling in dissertation hours.

5. Dissertation Proposal and Defense
  - a. Following the successful completion of the written and oral comprehensive examinations, the student must submit a dissertation proposal to the Doctoral Advisory Committee and submit the accompanying "Dissertation Prospectus Approval" form from the Graduate College. The Doctoral Advisory Committee will determine the acceptability of the prospectus.
  - b. Upon approval of the prospectus, the student must obtain approval for the study from the Institutional Review Board for the Protection of Human Subjects.
  - c. Upon completion of the dissertation, a defense will be scheduled and conducted in accordance with the Graduate College's policy for dissertation completion. Students should obtain The Graduate Study Guide and the Guide to Preparing and Submitting a Thesis or Dissertation from the Graduate College web site.

### Plan Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### Kinesiology & Nutrition Sciences Courses

#### CLS 612 - Clinical Immunology

Credits 3

Principles of immunology and the immune response as applied to states of health and disease, immune function and pathology. Topics include antibodies and other antigen receptors, antigens, cell-cell communications, major histocompatibility complex interactions, effector mechanisms, immune regulation, hypersensitivity reactions, immunoproliferative and immuno deficiency disease, transplantation immunology, and cancer mechanisms.

**Notes** This course is crosslisted with CLS 412. Credit at the 600-level requires additional work.

#### CLS 613 - Clinical Immunology Laboratory

Credits 1

Immunologic and molecular techniques used to analyze antigen-antibody reactions in the diagnosis of health or disease. Including liquid and gel precipitation; direct agglutination, and hemagglutination; secondary indicator systems (RIA, ELISA, FA); bacterial and viral serology, Western Blot, DNA, fingerprinting, PCR, nucleic acid probes, flow cytometry and cellular analyses.

**Notes** This course is crosslisted with CLS 413. Credit at the 600-level requires additional work.

#### CLS 614 - Transfusion - Immunohematology

Credits 2

Transfusion medicine stresses practical and theoretical aspects of the immunology of tissue antigens and blood group systems. Including ABO discrepancies, transfusion and compatibility testing, adverse reactions to transfusion, hemolytic disease of the newborn, hemotherapy, apheresis, immunomodulation, stem cell transplantation, donor selection and preparation.

**Notes** This course is crosslisted with CLS 414. Credit at the 600-level requires additional work.

#### CLS 615 - Transfusion Medicine Immunohematology Laboratory

Credits 3

Simulated clinical immunohematology laboratory designed to expose the student to the clinical practice of a modern blood bank service. Applied experiences in basic and advanced clinical testing related to

common blood group antigens and their associated antibodies, compatibility testing, alloantibody identification, adsorptions/elutions, transfusion reactions and pre/postnatal studies.

**Notes** This course is crosslisted with CLS 615. Credit at the 600-level requires additional work.

#### CLS 622 - Clinical Hematology I

Credits 3

Basic and diagnostic hematology with an emphasis on pathophysiology. Hematopoiesis, anemias, and hemostasis presented through lectures, case studies and morphologic review of peripheral blood and bone marrow smears. Differential diagnosis of these disorders through specified diagnostic laboratory tests.

**Notes** This course is crosslisted with CLS 442. Credit at the 600-level requires additional work.

#### CLS 623 - Clinical Hematology Laboratory I

Credits 2

Basic and diagnostic hematology with an emphasis on the laboratory tests used to differentially diagnose various hematologic disorders. Major emphasis on the various anemias and primary hemostatic bleeding disorders. Laboratory unknowns and peripheral/bone marrow microscopic slides used to correlate clinical tests and theoretical principles.

**Notes** This course is crosslisted with CLS 423. Credit at the 600-level requires additional work.

#### CLS 624 - Clinical Hematology II

Credits 3

Diagnostic hematology and body fluid analysis with emphasis on pathophysiology. Myeloproliferative, lymphoproliferative, myelodysplastic, acute and chronic leukemias and advanced topics in hemostasis presented through lectures, case studies and morphologic review of peripheral blood and bone marrow slides. Differential diagnosis of these disorders through specified laboratory tests.

**Notes** This course is crosslisted with CLS 424. Credit at the 600-level requires additional work.

#### CLS 625 - Clinical Hematology Laboratory II

Credits 2

Diagnostic hematology and body fluid analysis with an emphasis on the laboratory tests, cytochemical stains, and molecular markers used to differently diagnose the various hematologic malignancies and

hemostasis disorders. Laboratory unknowns and peripheral/bone marrow microscopic slides used to correlate clinical tests and theoretic principles.

**Notes** This course is crosslisted with CLS 425. Credit at the 600-level requires additional work.

#### CLS 632 - Clinical Microbiology I

Credits 3

Introduction to medically significant microbial diseases of man. Microbial physiology and pathogenic interactions between man and microorganism. Epidemiology, triage, and diagnosis of microorganisms causing human diseases. Emphasis is on aerobic and anaerobic bacterial diseases, mycobacteria, vibrios, Legionella, Mycoplasma, spirochetes, Rickettsia and Chlamydia. Includes discussion of antimicrobial therapy and resistance mechanisms.

**Notes** This course is crosslisted with CLS 432. Credit at the 600-level requires additional work.

#### CLS 633 - Clinical Microbiology Laboratory I

Credits 2

Introduction to isolation, diagnostic and identification techniques for microbial diseases of humans. Emphasis is on aerobic and anaerobic bacteria, mycobacteria, vibrios, Legionella, Mycoplasma, spirochetes, Rickettsia and Chlamydia. Includes conventional microscopic, culture, molecular and immunological techniques as well as susceptibility testing methods.

**Notes** This course is crosslisted with CLS 433. Credit at the 600-level requires additional work.

#### CLS 634 - Clinical Microbiology II

Credits 3

Advanced medical microbiology. Microbial physiology and pathogenic interactions between man and microorganism. Epidemiology, prevention, diagnosis and treatment of microorganisms causing human diseases. Emphasis is on fungal, parasitic and viral diseases as well as miscellaneous bacteria from various body sites. Includes discussion of antimicrobial therapy and resistance mechanisms.

**Notes** This course is crosslisted with CLS 434. Credit at the 600-level requires additional work.

#### CLS 635 - Clinical Microbiology Laboratory II

Credits 2

Advanced practical applications in the recovery,

isolation and identification of microorganisms causing human disease. Emphasis is on methods for mycology, parasitology, and virology as well as miscellaneous bacteria from different body sites. Includes conventional microscopic, culture, molecular and immunological techniques as well as susceptibility testing methods.  
**Notes** This course is crosslisted with CLS 435. Credit at the 600-level requires additional work.

#### CLS 642 - Clinical Chemistry I

Credits 3

Chemical analysis indicative of human health and disease. Theory and utilization of biochemical instrumentation including photometry, electrochemical, and electrophoresis. Emphasis placed on method application to analysis of carbohydrates, proteins, electrolytes, liver and pancreatic function.

**Notes** This course is crosslisted with CLS 442. Credit at the 600-level requires additional work.

#### CLS 643 - Clinical Chemistry I Laboratory

Credits 1

Manual and automated chemical methods used to measure normal and abnormal constituents, such as glucose, electrolytes, and proteins, in blood and body fluids. Use of spectrophotometric techniques, recognition of technical problems and selected abnormalities discussed.

**Notes** This course is crosslisted with CLS 443. Credit at the 600-level requires additional work.

#### CLS 644 - Clinical Chemistry II

Credits 3

Advanced study of chemical analysis of blood, urine and other body fluids in normal and abnormal physiological conditions. Emphasizes interdependency, physiological conditions affecting test results and clinical significance. Topics include endocrinology, toxicology, and radioimmunoassay.

**Notes** This course is crosslisted with CLS 444. Credit at the 600-level requires additional work.

#### CLS 645 - Clinical Chemistry II Laboratory

Credits 1

Advanced laboratory applications in chemical analysis of blood, urine and other body fluids in normal and abnormal physiological conditions. Emphasizes interdependency, physiological

conditions affecting test results and clinical significance. Topics include endocrinology, toxicology and radioimmunoassay.

**Notes** This course is crosslisted with CLS 445. Credit at the 600-level requires additional work.

#### CLS 653 - Seminar in CLS IV

Credits 2

Discussion of topics in current clinical laboratory pathology. Individual and group projects used to reinforce concepts for interpretation and correlation of laboratory data to patient care. Includes

**Notes** This course is crosslisted with CLS 453. Credit at the 600-level requires additional work.

#### CLS 681 - Clinical Practicum in Hematology

Credits 3

Clinical practice module that allows the student to gain applied experiences and technical competencies in the area of hematology and body fluids. Clinical practicum in affiliated laboratories designed to develop entry-level competencies and to assist the student in making the transition to clinical practitioner. Supervision by clinical/university faculty.

**Notes** This course is crosslisted with CLS 481. Credit at the 600-level requires additional work.

#### CLS 682 - Clinical Practicum in Chemistry

Credits 3

Clinical practice module that allows the student to gain applied experiences and technical competencies in the areas of chemistry, immunology, and urinalysis. Clinical practicum in affiliated laboratories designed to develop entry-level competencies and to assist the student in making the transition to clinical practitioner. Supervision by clinical/university faculty.

**Notes** This course is crosslisted with CLS 482. Credit at the 600-level requires additional work.

#### CLS 683 - Clinical Practicum in Immunohematology

Credits 3

Clinical practice module that allows the student to gain applied experiences and technical competencies in the area of immunohematology. Clinical practicum in affiliated laboratories designed to develop entry-level competencies and to assist the student in making the transition to clinical practitioner. Supervision by clinical/university faculty.



**Notes** This course is crosslisted with CLS 683. Credit at the 600-level requires additional work.

CLS 684 - Clinical Practicum in Microbiology  
Credits 3

Clinical practice module that allows the student to gain applied experiences and technical competencies in the area of clinical microbiology, parasitology, and mycology. Clinical practicum in affiliated laboratories designed to develop entry-level competencies and to assist the student in making the transition to clinical practitioner. Supervision by clinical/university faculty.

**Notes** This course is crosslisted with CLS 484. Credit at the 600-level requires additional work.

CLS 685 - Advanced Clinical Practicum  
Credits 3

Clinical practice module that allows the student to gain applied experience in the area of toxicology, flow cytometry, and molecular diagnostics. Clinical practicum in specified affiliated laboratories designed to provide exposure to the student in the specialty areas listed. Supervision by clinical/university faculty.

**Notes** This course is crosslisted with CLS 485. Credit at the 600-level requires additional work.

KIN 601 - History of Exercise and Sport Science  
Credits 3

Historical concepts, systems, patterns, and traditions that have influenced American physical activity and sport, with emphasis on the evolution of kinesiology within the discipline of exercise and sport science.

**Notes** This course is crosslisted with KIN 401. Credit at the 600-level requires additional work.

KIN 605 - Sports Nutrition  
Credits 3

This course has been approved for graduate credit. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

KIN 614 - Enhancing Mental and Motor Abilities  
Credits 3

Topics of mental and motor abilities including attention, arousal states, information processing, and practice schedules. Special emphasis on enhancing motor performance through mental strategies.

**Notes** This course is crosslisted with KIN 414. Credit at the 600-level requires additional work.

KIN 615 - Introduction to Forensic Kinesiology  
Credits 3

Survey of forensic investigation. Focus on personal injury and accident avoidance from an interdisciplinary perspective. Emphasis on humans and their interactions in the physical environment.

**Notes** This course is crosslisted with KIN 415. Credit at the 600-level requires additional work.

KIN 656 - Biomechanics of Endurance Performance  
Credits 3

The primary objective of this course is to provide a study of endurance performance from a biomechanical perspective. At the conclusion of the course, the student will be able to apply biomechanical terminology to understand factors that influence endurance swimming, biking, and running performance, for example.

KIN 657 - Physiology of Endurance Performance  
Credits 3

The primary objective of this course is to provide a study of endurance performance from an exercise physiology perspective. At the conclusion of the course, the student will be able to demonstrate an understanding of physiological factors that influence endurance swimming, biking, and running performance, for example.

KIN 685 - Physical Activity and the Law  
Credits 3

Legal principles associated with physical activity professions. Emphasis on practical application of legal issues in risk management, safety procedures, negligence, liability, contracts, and professional ethics, as well as recognition and minimization of legal risk during physical activity.

**Notes** This course is crosslisted with KIN 485. Credit at the 600-level requires additional work.

KIN 691 - Exercise Physiology  
Credits 3

Physiological changes in human organisms during physical exercise; physiological bases for planning physical education programs; observations of respiratory, circulatory, nervous, and metabolic adjustments to physical exercise. Laboratory

experience to enhance learning.

**Notes** This course is crosslisted with KIN 491. Credit at the 600-level requires additional work.

KIN 692 - Clinical Exercise Physiology  
Credits 3

Pathophysiology of cardiovascular disease; role of exercise in treatment and prevention of coronary heart disease; exercise stress testing principles and procedures; prescribing exercise programs for healthy adults and patient populations.

**Notes** This course is crosslisted with KIN 492. Credit at the 600-level requires additional work.

KIN 695 - Sports Medicine  
Credits 3

This course has been approved for graduate credit. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

KIN 700 - Special Problems in Kinesiology  
Credits 1 – 6

Specialized instruction and/or research designed to develop depth in understanding a current kinesiology problem.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor.

KIN 730 - Organization and Administration of Athletic Training  
Credits 3

Develop and utilize organization and administrative theories and philosophies in managing facilities, co-workers and students in a variety of athletic settings.

KIN 731 - Orthopedic Assessment in Sports Medicine  
Credits 3

Theory and methods of orthopedic assessment as they relate to the understanding, evaluation, treatment, and rehabilitation of sport injuries. Emphasis on advanced understanding of the theoretical applications of advanced assessment techniques for orthopedic injuries.

**Prerequisites** Consent of instructor.

KIN 733 - Psychological Aspects of Sport and Rehabilitation  
Credits 3

Overview of theoretical concepts and techniques in sport psychology. Emphasis on the application of psychology to human movement, skilled athletic performance, and injury rehabilitation.

KIN 734 - Therapeutic Intervention in Sports Medicine  
Credits 3

Theoretical background in the application of therapeutic intervention in a practical setting.

KIN 735 - Sports Medicine Rehabilitation Principles and Practices  
Credits 3

Provides opportunity to study theory and techniques of various exercise rehabilitation processes and apply these processes on a case study basis.

**Prerequisites** Graduate standing and consent of instructor.

KIN 736 - Biomechanical Applications in Kinesiology  
Credits 3

Provides opportunity to learn mechanical principles underlying human movement and apply these skills in a laboratory situation.

**Prerequisites** Graduate standing and consent of instructor.

KIN 737 - Biomechanics of Strength  
Credits 3

Interdisciplinary examination of concepts and principles involved in strength development and force production. Includes study of neurological, physiological and mechanical factors affecting force/tension/power generation, and biomechanical interactions with external loads and various resistance training equipment.

**Prerequisites** Graduate standing or consent of instructor.

KIN 738 - Human Physiology  
Credits 3

Study of mechanisms which regulate physiological systems and the way regulation functions to maintain homeostasis. Emphasis on those systems involved in the integrated response to exercise.

**Prerequisites** Consent of instructor, undergraduate course in anatomy and physiology.

KIN 739 - Evaluation of Physical Working Capacity  
Credits 3

Concepts and methodology in the measurement of energy metabolism in humans. Examination of the various methods used to measure physical working capacity with the treadmill and ergometry. Understanding of basic electrophysiology of myocardium and pulmonary function measurements.

**Prerequisites** Consent of instructor.

KIN 740 - Advanced Exercise Physiology  
Credits 3

Lecture, discussion, and laboratory experiences dealing with impact of acute and chronic exercise on several systems. Selected topics such as nutrition and exercise, weight control, physical working capacity, and body composition.

**Prerequisites** KIN 739

KIN 743 - Research Techniques in Biomechanics  
Credits 3

Examination of some of the techniques used in biomechanical research for data collection, analysis, and presentation. Emphasis on developing an understanding of experimental techniques, their capabilities and limitations. The lecture/discussion/lab sessions provide a historical and theoretical basis for each of the techniques examined.

**Prerequisites** Graduate standing or consent of instructor.

KIN 744 - Thermoregulation During Physical Work  
Credits 3

Emphasizes physical mechanisms of heat transfer and their physiological control: relationship among body temperatures, sweat rate, exercise loads, environmental temperature, and heat stress.

**Same as** (BIO 744)

**Prerequisites** KIN 739 and consent of instructor.

KIN 745 - Human Energy Metabolism  
Credits 3

Study of the interactions between nutrition, energy metabolism, and physical exercise. Emphasis on how the body assimilates, stores, and makes available food energy to power muscular work.

**Prerequisites** KIN 739 or consent of instructor.

KIN 747 - Graduate Seminar  
Credits 1

Oral presentations of proposed and completed research by graduate students, graduate faculty, and guests.

**Notes** May be taken for credit to a maximum of four credits.

KIN 748 - Professional Paper  
Credits 1 – 6

**Notes** May be repeated but only three credits will be applied to the student's program.

**Grading** S/F grading only.

KIN 749 - Thesis  
Credits 3 – 6

**Notes** May be repeated but only six credits will be applied to the student's program.

**Grading** S/F grading only.

KIN 750 - Research Methods  
Credits 3

Overview of techniques used in historical, descriptive, and experimental research such as those found in exercise science, health, physical education, and recreation research publications. Procedures for formulating a research proposal; hypothesis testing; experimental designs and statistical applications.

KIN 751 - Selected Application of Statistical Techniques I  
Credits 3

Introduction to descriptive and inferential statistical procedures utilized in studies reported in exercise science, health, physical education, and recreation.

KIN 752 - Selected Application of Statistical Techniques II  
Credits 3

Statistical analysis techniques including correlation and regression, anova, multivariate analysis, manova for repeated measures designs. Introduction to selected statistical software packages; computer-aided graphics and data presentation techniques.

**Prerequisites** KIN 751 or consent of instructor.

KIN 755 - Research on Physical Activity Behavior  
Credits 3

Students review the scholarly literature pertaining to physical activity behavior. Papers with special

implications for building a general knowledge base requisite to the conduct of research on physical activity behavior are read, discussed, and critically analyzed.

**KIN 760 - Motor Skill Learning and Performance**  
Credits 3

Sensory and central contributions to skilled movement, and practice methods that enhance motor skill learning (e.g., in sports, physical therapy, athletic training, music). Discussions of influential factors such as feedback, attentional focus, unconscious learning, learning through observation, learner autonomy, practice scheduling, social-cognitive-affective influences on learning, and performance under pressure.

**KIN 761 - Human Motor Control**  
Credits 3

Advanced studies in motor control, including sensory and central contributions to movement control, balance, movement observation, focus of attention, mindset, social-cognitive-affective influences on motor performance.

**KIN 762 - Motor Learning Applications**  
Credits 3

Designed to explain basic concepts of motor learning involved in organizing and scheduling practice for efficient learning/teaching of motor skills. Includes discussions of memory, feedback, stages of learning, and other motor learning principles.

**KIN 775 - Internship in Athletic Administration**  
Credits 3

The internship in Athletics is a culminating experience that provides an opportunity to apply knowledge and skills learned in the academic program while working within an athletic administration or related organization. Students will work under the direction of a supervisor in a area related to their selected interest for future employment.

**Notes** May be repeated to a maximum of six credits.

**KIN 788 - Independent Study**  
Credits 1-3

Independent study of a selected topic in kinesiology and nutrition sciences.

**Notes** Repeatable up to 6 credits.

**KIN 796 - Supervised Practice: Community Nutrition**  
Credits 2

For Students accepted into the Department of Nutrition Sciences Dietetic Internship. Students gain intensive experiences covering all aspects of community nutrition programming. Students will observe the diversity within community nutrition in terms of mission, target audience and programs and will actively participate in nutrition program development, implementation, evaluation, and marketing.

**Corequisite** KIN 797 and KIN 798.

**KIN 797 - Supervised Practice: Food Service Management**  
Credits 2

For students accepted into the Department of Nutrition Sciences Dietetic Internship. Students will gain experience in managing the diet office, tray line production and supervision, food service production, cafeteria management, and catering.

**Corequisite** KIN 796 and KIN 798.

**KIN 798 - Supervised Practice: Clinical Nutrition and Dietetics**  
Credits 2

For students accepted into the Department of Nutrition Sciences Dietetic Internship. Students will gain the skills required to screen and assess individual patients, interpret laboratory values, develop and implement appropriate care plans, complete appropriate diet instructions, and document all assessment and plan information in correct medical chart format.

**Corequisite** KIN 797 and KIN 798.

**KIN 799 - Dissertation**  
Credits 1 – 12

Culminating research analysis and writing toward completion of dissertation and subsequent defense.

## **Physical Therapy**

*Emilio Puentedura, Ph.D., Graduate Coordinator*

*Carrie Gillis, Ph.D., Graduate Coordinator*

The Department of Physical Therapy offers a graduate program leading to a Doctor of Physical Therapy (DPT) degree. The program is designed to prepare students to plan and administer treatment to help patients regain diminished physical function lost secondary to injury or disease, to promote soft tissue healing, and to relieve pain. By determining the degree of impairment, physical therapists are then able to help patients return to full function by using various physical agents such as electrical stimulation, heat, and cold to decrease pain and by using therapeutic exercises to increase strength, endurance, and coordination.

The purpose of the Department of Physical Therapy is to provide students pursuing a career in physical therapy the opportunity to acquire the knowledge and skills required for the safe practice of physical therapy. Students are prepared as generalists, but also have some opportunity to investigate specialized aspects of physical therapy through numerous clinical exposures. The program of study consists of approximately 112 credit hours of graduate course work and consists of intense academic and clinical work spread over six semesters and three summers. These hours are divided between classroom, clinical and research activities.

The DPT degree is an entry-level professional program designed to provide individuals with appropriate baccalaureate degrees the knowledge and skills to develop clinical and research expertise in the provision of physical therapy. Upon receiving this degree, students will be eligible to sit for the licensure examination in physical therapy.

The mission of the UNLV Department of Physical Therapy is to develop competent, caring and autonomous practitioners who will serve the health care needs of the State of Nevada and the profession and who are doctorally prepared to engage in critical thinking, evidence-based practice, life-long learning, and service in a variety of health care settings, including rural and under-served areas.

*Merrill Landers, PT, DPT, PhD, Chair*

## Doctor of Physical Therapy

### Plan Description

The course of study at the University of Nevada, Las Vegas is an entry-level professional program designed to prepare students to enter the profession of physical therapy. A Doctor of Physical Therapy Degree is awarded following the successful completion of the program that consists of intense academic and clinical work spread over six semesters and three summers. Students are prepared as generalists, but also have an opportunity to investigate specialized aspects of physical therapy through numerous clinical exposures. The program of study consists of 112 credit hours of graduate course work. These hours are divided among classroom, clinical, and research activities.

For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Admission to the program is limited to 34 available spaces per class. Students enrolling in any class in the Department of Physical Therapy must be admitted (graduate standing only, no graduate provisional standing accepted) to the program in the Summer semester of each year. Since enrollment is limited in the Physical Therapy program, satisfactory completion of prerequisite courses does not assure an applicant of admission. No student may take any class as a “Non-Degree Seeking” student.

Admissions criteria are reviewed by the faculty annually and are subject to change.

Prior to application to the program, the individual is advised to fully explore the nature of the profession of physical therapy. Students are expected to volunteer in or visit various physical therapy facilities in order to gain a broad view of the roles and responsibilities of a physical therapist. As part of the interview process, students will be assessed on their knowledge of the scope of the profession of physical therapy.

The application deadline is December 15th preceding the June in which admission is desired. After applications are received, they are reviewed regarding the minimum requirements, i.e., baccalaureate degree, GPAs, etc. Only the leading candidates will be invited for interviews during the Spring semester, which are based on satisfactory completion of the admission requirements.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

### The following requirements are considered for admission into the Doctor of Physical Therapy program:

1. Prior to entering the program, candidates must complete prerequisite courses and earn a baccalaureate degree from an accredited college or university. There is no preference given to any particular baccalaureate degree.
2. A minimum overall undergraduate grade point average of 3.0 on a 4.0 scale with a minimum average of 3.0 on a 4.0 scale for prerequisite courses.
3. An interview will be required.
4. A composite score of 300 or higher on the verbal and quantitative sections of the Graduate Record Examination (GRE) is preferred. A score of 4 out of 6 is recommended on the Analytical Writing Section of the GRE.
5. Students must apply to the DPT program via the new Physical Therapy Centralized Application Service (PTCAS). Only applications from PTCAS will be considered. Please use the URL [www.ptcas.org](http://www.ptcas.org) to complete your application.

The following are required with your application to PTCAS:

- a. Three letters of recommendation. Two of the letters need to be from a licensed physical therapist who can evaluate the applicant’s potential as a student in the physical therapy program. The remaining letter can be from a former professor or employer.

- b. An autobiographical statement of approximately 300 words describing the student's professional goals and reasons for seeking graduate education in physical therapy.
- c. Knowledge of the field through actual work or volunteer experience (a minimum of 100 hours or more divided among hospital and outpatient facilities). Additional hours in diversified settings are strongly recommended.

2. One year of laboratory and lecture-based anatomy and physiology courses
3. One year of laboratory and lecture-based inorganic chemistry
4. One year of laboratory and lecture-based physics
5. One year psychology (introduction to psychology and one semester of either child, adolescent, developmental or abnormal psychology)
6. One semester statistics

**Information to be submitted to the Graduate College:**

1. Complete and submit the Graduate College online application for admission, with appropriate fees.
2. Official transcripts from all previous college and professional schools.

The program is open to qualified applicants without regard to race, color, religion, sex, sexual orientation, age, national origin, marital status, or the presents of any physical, sensory, or mental disability.

**Prerequisite Courses**

In addition to completing the requirements of a baccalaureate degree, applicants must have completed or be able to complete the necessary specific hours of prerequisite course work with a grade of at least a C prior to admission to the program. Grades below a C in prerequisite courses will not be accepted. No more than two prerequisite science courses should be in progress or incomplete and all prerequisite science courses must be completed by the end of the spring semester (quarter) prior to commencing the program. Those students in the process of fulfilling the requirements of a prerequisite course must realize that their acceptance into the program is contingent upon satisfactory completion of that course during the application process.

Courses taken on a pass-fail basis may not fulfill prerequisite requirements. Prerequisite course work must have been completed within 10 years from application cycle to fulfill requirements, which are as follows:

1. One year of lecture-based biology courses

**Advisement**

All entering students will be assigned a specific faculty member for advisement.

**Policies and Procedures**

Policies and procedures for didactic and clinical work regarding course grades, probation, separation, and reapplication are detailed in the Department of Physical Therapy Student Manual and Clinical Education Manual.

**Objectives**

1. To prepare students to be the purveyors of physical therapy practice through clinical excellence, critical thinking, scientific inquiry, and social responsibility.
2. To prepare students to differentially diagnose enabling them to establish an appropriate plan of care and provide referral as necessary.
3. To prepare graduates who will be able to work autonomously in a wide variety of settings and roles as practitioners, clinical educators and researchers, supervisors, administrators and consultants.
4. To prepare students to adapt to changes in health care and society and be prepared to work in challenging environments with elderly, rural, and underserved populations.
5. To educate students in the design and implementation of culturally competent health care.
6. To develop scientific practitioners, who are able to demonstrate the ability to critically analyze literature, utilize evidence-based integrated treatment approaches, and value clinical based research.
7. To prepare graduates to educate and encourage patients to achieve functional independence so they may have an improved

quality of life and become more productive members of society.

8. To prepare graduates who will be able to organize and promote health awareness, wellness, and prevention education, and reintegrate populations with special needs into the community throughout-reach programs.
9. To prepare graduates to assume a leadership role in addressing critical issues that affect clinical practice, education, research, and public policy.
10. To prepare graduates to be committed to a lifetime of self-directed learning, professional development, integrity, community involvement, and to exemplify professional and personal ethics and values.
11. To prepare graduates to demonstrate understanding of medico-legal issues in physical therapy practice through active involvement in professional organization.
12. To educate students on the benefits of working interdependently with other health care professionals using a team approach to patient care.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 112

### **Course Requirements**

#### **Summer Semester 1st Year Courses - Credits: 8**

DPT 726 - Evidenced-Based Practice in Physical Therapy I  
DPT 727 - Evidence-Based Practice in Physical Therapy II  
DPT 744 - Gross Anatomy I  
DPT 744L - Gross Human Anatomy Lab I  
DPT 745 - Gross Anatomy II  
DPT 745L - Gross Human Anatomy Lab II

#### **Fall Semester 1st Year Courses - Credits: 19**

DPT 730 - Foundations of Observation and Assessment  
DPT 730L - Foundations of Observation and

Assessment Lab

DPT 741 - Orthopaedic Principles  
DPT 742 - Clinical and Pathological Physiology  
DPT 746 - Neuroanatomy  
DPT 746L - Neuroanatomy Lab  
DPT 749 - Applied Exercise Physiology  
DPT 749L - Applied Exercise Physiology Lab

#### **Spring Semester 1st Year Courses - Credits: 21**

DPT 732 - Therapeutic Exercise  
DPT 732L - Therapeutic Exercise Lab  
DPT 735 - Functional Training and Acute Care  
DPT 735L - Functional Training and Acute Care Lab  
DPT 748 - Pharmacology  
DPT 754 - Orthopaedic Assessment in Physical Therapy  
DPT 754L - Orthopaedic Assessment in Physical Therapy Lab  
DPT 756 - Neurophysiology  
DPT 790 - Clinical Research in Physical Therapy

#### **Summer Semester 2nd Year Courses - Credits: 8**

DPT 740 - Movement Science  
DPT 752 - Physical Agents and Electrophysiology  
DPT 752L - Physical Agents and Electrophysiology Lab  
DPT 761 - Supervised Clinical Education I

#### **Fall Semester 2nd Year Courses - Credits: 16**

DPT 720 - Professional Development  
DPT 757 - Wound Care  
DPT 770 - Cardiopulmonary Rehabilitation  
DPT 770L - Cardiopulmonary Rehabilitation Lab  
DPT 785 - Orthopaedic Rehabilitation  
DPT 785L - Orthopaedic Rehabilitation Lab  
DPT 786 - Neurological Rehabilitation  
DPT 786L - Neurologic Rehabilitation Laboratory Experience  
DPT 791 - Applied Research Statistics

#### **Spring Semester 2nd Year Courses - Credits: 15**

DPT 747 - Geriatric Examination and Intervention  
DPT 750 - Prosthetics and Orthotics  
DPT 750L - Prosthetics and Orthotics Lab  
DPT 758 - Diagnostic Testing and Imaging  
DPT 759 - Pediatric Rehabilitation  
DPT 759L - Pediatric Rehabilitation Laboratory Experience  
DPT 780 - Balance and Vestibular Rehabilitation  
DPT 788 - Spine Examination and Treatment



DPT 788L - Spine Examination and Intervention Lab  
DPT 793 - Seminar

### Summer Semester 3rd Year Courses - Credits: 6

DPT 751 - Women's Health in Physical Therapy  
DPT 772 - Physical Therapy Administration  
DPT 774 - Psychosocial Aspects of Physical Therapy

### Fall Semester 3rd Year Courses - Credits: 10

DPT 762 - Supervised Clinical Education II  
DPT 763 - Supervised Clinical Education III

### Spring Semester 3rd Year Courses - Credits: 9

DPT 764 - Supervised Clinical Education IV  
DPT 798 - Directed Research(3 credits) \*Course Fee

### Degree Requirements

1. Satisfactory completion of the 112 credits of the Physical Therapy program including the required period of clinical education with a grade point average of 3.00 or higher on a scale of 4.00.
2. Maintain a cumulative grade point average of 3.00 or above each semester enrolled.
3. Receive a grade of B- or above in all required physical therapy courses. Students who do not maintain a 3.00 average or who receive any grade less than a B- in any course at the end of the semester will be notified in writing and placed on probation at that time. A second grade of C+ or lower received in any course in the ensuing semester or failure to restore the cumulative average to 3.00 or above during the ensuing semester will bring about separation from the program. The student's status in the program will be determined the Chair/Director on the recommendation of the Academic Review Committee (ARC) regarding the student's separation or action plan for remediation.
4. The student will not progress in the program if any of the following occur:
  - a. An earned F in any didactic course. This results in immediate separation without the option for reapplication.
  - b. Failure of a third attempt of any clinical competency check-off with

the exception of the final practical exam.

- c. A failure of a final practical exam (different than the competency check-off).
  - d. A grade of C+ or below in more than one course in any semester.
  - e. Inability to rectify probationary status within the time frame allotted by the ARC.
  - f. A student on probation whose actions warrant probation in another category (academic, professional behavior, clinical) may also be separated.
5. A student may register for a Supervised Clinical Education course only two times if the option to reapply is approved by the ARC and a recommendation is made to the department chair/director. This option is only available to students who have failed a clinical rotation and have been separated from the program. This option is not available to students failing didactic course work. A student who is registered for the same course twice and has withdrawn or received a Fail is ineligible for readmission unless otherwise approved by the ARC, Department Chair, and Graduate Dean.
  6. The students must follow the proposed curriculum in the specified time frames unless otherwise approved by the ARC, Department Chair, and Graduate Dean.
  7. Credit by Challenge Examination: Graduate courses in the Department of Physical Therapy may not be challenged for credit.
  8. The program must be completed within six years from the date of matriculation. The chair/director will evaluate potential exceptions.
  9. In addition to the course requirements, the student must satisfactorily prepare a written document and oral presentation of a final research project, professional paper, or case report. The presentation will satisfy the requirements for a final capstone experience and will be open to the public.
  10. Students must be in good standing with the Department of Physical Therapy and cannot be on a probation status at the time of graduation. Policies related to student probation, separation, and academic progress as stated in the current physical Therapy Student Manual are in compliance with the Graduate College.

## **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully present his/her final research project, professional paper, or case report by the posted deadline. The presentation must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy research project, professional paper, or case report to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Physical Therapy Faculty

University, Taiwan; M.S., University of Florida;  
Ph.D., University of Southern California. *Rebel since 2012.*

### Chair

**Landers, Merrill** - *Full Graduate Faculty*  
Associate Professor; B.S., Brigham Young  
University; D.P.T., Creighton University; Ph.D.,  
University of Nevada Las Vegas. *Rebel since 2001.*

### Graduate Coordinators

**Puentedura, Emilio** - *Full Graduate Faculty*  
Associate Professor; B.App.Sc. and G.D.M.T.,  
Lincoln Institute of Health Sciences, La Trobe  
University, Australia; D.P.T., Northern Arizona  
University; Ph.D. Nova Southeastern  
University. *Rebel since 2007.*

**Gillis, Carrie**  
Administrative Clinical Coordinator; B.S., Oklahoma  
City University; D.P.T., University of Nevada Las  
Vegas. *Rebel since 2012.*

### Graduate Faculty

**Hickman, Robbin** - *Full Graduate Faculty*  
Associate Professor; B.S., California State  
University, Long Beach; M.H.S., University of  
Indianapolis; D.Sc., Rock Mountain University of  
Health Professionals. *Rebel since 2007.*

**Ho, Kai-Yu** - *Full Graduate Faculty*  
Assistant Professor; B.S. and M.S., National Chen  
Kung University, Taiwan; Ph.D., University of  
Southern California. *Rebel since 2013.*

**Schuerman, Sue** - *Full Graduate Faculty*  
Faculty in Residence; B.S., University of Nebraska;  
M.B.A., University of Massachusetts, Ph.D.,  
University of Nebraska. *Rebel since 2006.*

**Young, Danny** - *Full Graduate Faculty*  
Associate Professor; B.S., Southern Utah University;  
D.P.T., Creighton University. *Rebel since 2007.*

**Turner, Cassy** - *Full Graduate Faculty*  
Faculty in Residence; B.S. and D.P.T., University of  
Nevada Las Vegas. *Rebel since 2011.*

**Lee, Szu-Ping** - *Full Graduate Faculty*  
Assistant Professor; B.S., National Yang-Ming

## Physical Therapy Courses

DPT 703 - Admission to PhD in Interdisciplinary Health Sciences program

Credits 3

Theoretical and practical foundations for measurement in rehabilitation research. Concepts include importance and uses of outcomes research to measure body structures and functions, functional behaviors and activities, participation and quality of life, and consumer satisfaction. Challenges of designing and measuring outcomes in diverse populations across the lifespan will also be considered.

**Prerequisites** Admission to PhD in Interdisciplinary Health Sciences program.

DPT 710 - Selected Topics in Physical Therapy

Credits 1

Forum to disseminate information to students on current and professional issues in physical therapy.

**Prerequisites** Graduate standing in physical therapy.

DPT 711 - Medical Terminology

Credits 1

Introduction to medical terminology for the healthcare professional. Students expand their medical vocabulary via immersion in medical content and subjects from a broad spectrum of body systems.

**Prerequisites** Graduate standing in physical therapy.

DPT 714 - Neuroplasticity

Credits 3

Comprehensive overview of the neurobiological mechanisms and treatment principles of neuroplasticity and how to integrate and apply them to clinical practice.

DPT 715 - Pathobiomechanics

Credits 3

The course is designed to introduce the concepts of biomechanical research regarding musculoskeletal pathologies, including kinematics, kinetics, and electromyography at the whole body and joint level. How alterations of connective tissue and muscle mechanics contribute to musculoskeletal pathologies is also discussed.

DPT 720 - Professional Development

Credits 2

Theories and experiences designed to develop skills to accurately, sensitively and assertively communicate with patients, families, and colleagues. Principles of written and oral communication. Professional issues of changes in health care, state and local laws, standards of practice, code of ethics, quality assessment and quality assurance.

**Prerequisites** Graduate standing in physical therapy.

DPT 721 - Advanced Topics in Physical Therapy

Credits 1

Through in-class and web-assisted instruction, independent study, and mentored project development, prepares students for a variety of clinical competencies including health promotion/wellness, evaluation of alternative and complementary approaches, rural health, and other advanced aspects of clinical practice, ethics, and professional conduct related to physical therapy.

**Prerequisites** DPT 710

DPT 722 - Issues in Rural Health

Credits 1

Unique needs of frontier/rural and underserved populations addressed, emphasizing the eclectic nature of practice in these areas, the importance of networking with other disciplines, and special considerations of these populations including functional rehabilitation, time management, travel, emergencies, and involvement of families in treatment.

**Prerequisites** Graduate standing in physical therapy.

DPT 726 - Evidenced-Based Practice in Physical Therapy I

Credits 1

Designed to provide the student with knowledge and hands-on experience in skills required to engage evidence-based clinical practice of physical therapy. Students will learn how to write answerable questions, search the literature, and critically analyze evidence for application in clinical practice.

**Prerequisites** Graduate standing in Physical Therapy.

DPT 727 - Evidence-Based Practice in Physical Therapy II

Credits 1

This 1-credit course builds on DPT 726 and 790, providing students with knowledge skills to implement evidence-based practice in physical therapy. Students will critique special cases of evidence and psychometric properties of diagnostic tools and outcome measures, and create a minimal data set in order to integrate evidence into practice.  
**Grading** Letter Grade

DPT 730 - Foundations of Observation and Assessment  
Credits 2

Basic patient assessment skills with introduction to posture and gait evaluation through observation. Patient history and review of the medical record. Documentation in S.O.A.P. Note and functional outcome formats. Assessment skills emphasized include: anthropometric measures, reflex and sensation testing, goniometry, manual muscle testing, vital signs, and surface palpation.

**Prerequisites** Graduate standing in physical therapy.  
**Corequisite** DPT 730L

DPT 730L - Foundations of Observation and Assessment Lab  
Credits 2

Lab of basic patient assessment skills including posture, gait evaluation, anthropometric measures, reflex and sensation testing, goniometry, manual muscle testing, vital signs, and surface palpation. Patient history and review of medical records, documentation in SOAP format, and functional outcome formats.

**Prerequisites** Graduate standing in Physical Therapy.  
**Corequisite** DPT 730

DPT 732 - Therapeutic Exercise  
Credits 2

Holistic approach to evaluation and management of patients with various orthopaedic pathologies and other related movement dysfunction. Emphasis placed on theoretical basis of specific exercise physiology, therapeutic exercise and functional training skills interrelated with clinical decision-making methodology. Rationale for and implementation of treatments with safety awareness and proper body mechanics.

**Prerequisites** DPT 730, DPT 730L; DPT 741 ; DPT

744 DPT 744L; DPT 745 DPT 745L.

**Corequisite** DPT 732L.

DPT 732L - Therapeutic Exercise Lab  
Credits 1

Laboratory sessions to practice the evaluation and management of patients (and patient scenarios) with various orthopaedic pathologies and other related movement dysfunctions. Emphasis on exercise prescription and demonstration, as well as progression.

**Prerequisites** DPT 730, DPT 730L; DPT 741 ; DPT 744 DPT 744L; DPT 745 DPT 745L.

**Corequisite** DPT 732.

DPT 735 - Functional Training and Acute Care  
Credits 4

Performance and application of positioning skills, transfers techniques, and assistive devices. Advancement to clinical decision-making skills and incorporation of learned materials into therapy interventions. Clinical reasoning skills in assessment, treatment design and intervention, goal development and discharge planning for patients in the acute hospital environment.

**Prerequisites** Graduate standing in Physical Therapy. DPT 744, 745, 730.

**Corequisite** DPT 735L

DPT 735L - Functional Training and Acute Care Lab  
Credits 1

Hands on performance and application of positioning skills, transfer techniques, and assistive devices. Advancement to clinical decision-making skills and incorporation of learned materials into therapy interventions. Clinical reasoning skills in assessment, treatment design and intervention, goal development and discharge planning for patients in the acute hospital environment.

**Prerequisites** Graduate standing in Physical Therapy. DPT 744, 745, 730.

**Corequisite** DPT 735

DPT 740 - Movement Science  
Credits 2

This course will introduce students to principles and theories in movement science. Students will be introduced to concepts related to motor control, motor development, and motor learning. Students will also apply these principles to the clinical practice

of physical therapy and to observe and assess related phenomena in patients.

**Prerequisites** Enrollment in professional DPT curriculum.

DPT 741 - Orthopaedic Principles

Credits 3

Principles of orthopaedic physical therapy including biomechanics, applied anatomy, and osteokinematic and arthrokinematic concepts examined.

Musculoskeletal system investigated from histological, structural, and functional perspectives.

**Prerequisites** Graduate standing in physical therapy.

DPT 742 - Clinical and Pathological Physiology

Credits 5

Fundamentals of physiology and pathology related to diseases causing abnormal movement patterns or capabilities. Processes and diseases most frequently encountered in physical therapy practice emphasized.

**Prerequisites** Graduate standing in physical therapy.

DPT 744 - Gross Anatomy I

Credits 2

Study of gross human anatomy as it applies to physical therapy. Materials to be covered include: muscle, tendon, ligament and nerve innervation of the trunk and upper extremity, structural identification and function of the spine, heart, lungs, abdominopelvic organs, circulatory and sensory systems. Emphasis on relevance of gross anatomy to physical therapy practice. Involves both lecture and laboratory dissection that will cover the upper half of the body.

**Prerequisites** Graduate standing in Physical Therapy.

**Corequisite** DPT 744L

DPT 744L - Gross Human Anatomy Lab I

Credits 1

Gross human anatomy cadaver lab with supervised dissection and exploration of muscle, tendon, ligament and nerve innervation of the trunk and upper extremity, structural identification and function of the spine, heart, lungs, abdominopelvic organs, circulatory and sensory systems.

**Corequisite** DPT 744 - Gross Anatomy I

DPT 745 - Gross Anatomy II

Credits 2

Study of gross human anatomy as it applies to physical therapy. Materials to be covered include: muscle, tendon, ligament and nerve innervation of the head, neck, and lower extremity, structural identification and function of the corresponding circulatory and sensory systems.

**Prerequisites** DPT 744 and DPT 744L

**Corequisite** DPT 745L

DPT 745L - Gross Human Anatomy Lab II

Credits 1

Gross human anatomy cadaver lab with supervised dissection and exploration of muscle, tendon, ligament and nerve innervation of the head, neck, and lower extremity, structural identification and function of the corresponding circulatory and sensory systems.

**Prerequisites** DPT 744 and DPT 744L

**Corequisite** DPT 745

DPT 746 - Neuroanatomy

Credits 3

High level immersion into the anatomy of the nervous system, emphasizing structure and functional relationships. Coursework will also relate the structural relationships of the central and peripheral nervous systems to brain dysfunction and pathology.

**Prerequisites** Graduate standing in physical therapy.

**Corequisite** DPT 746L

DPT 746L - Neuroanatomy Lab

Credits 1

Human cadaveric dissection of the central nervous system through a series of weekly laboratory experiences with an emphasis on its three-dimensional structure.

**Prerequisites** Graduate standing in Physical Therapy.

**Corequisite** DPT 746

DPT 747 - Geriatric Examination and Intervention

Credits 1

Examination, evaluation, plan of intervention, outcomes, patient education, and health promotion as applied to the geriatric client. Issues include factors affecting normal aging, pathological aging, common pathologies associated with aging, quality of life, successful aging, care settings, reimbursement, and public policy.

**Prerequisites** Graduate standing in physical therapy.

DPT 748 - Pharmacology

Credits 2

Actions and effects of pharmaceutical agents commonly encountered in physical therapy clinical practice.

**Prerequisites** Graduate standing in Physical Therapy.

DPT 749 - Applied Exercise Physiology

Credits 2

Review of systems responsible for the generation of energy. Overview of the physiologic responses of the human body to acute bouts of exercise and how training leads to chronic adaptation of selected systems. Course content focuses on principles of exercise, role of nutrients in body metabolism, human development and performances.

**Prerequisites** Graduate standing in physical therapy.

**Corequisite** DPT 749L - Applied Exercise Physiology Lab

DPT 749L - Applied Exercise Physiology Lab

Credits 1

Laboratory and active learning experiences to include major components of physical fitness such as aerobic fitness; muscular strength, power, and endurance; fatigue thresholds; body composition and body build; and flexibility.

**Prerequisites** Graduate standing in Physical Therapy.

**Corequisite** DPT 749.

DPT 750 - Prosthetics and Orthotics

Credits 2

Evaluation of medical, surgical and prosthetic and rehabilitation management of amputations. Discussion of design, fabrication and fitting of prosthetic devices as well as general orthotic principles examined. Basic clinical problem solving skills integrated in the context of prosthetic and orthotic management of patients.

**Prerequisites** Graduate standing in Physical Therapy.

**Corequisite** DPT 750L

DPT 750L - Prosthetics and Orthotics Lab

Credits 1

Application of medical, surgical and prosthetic and rehabilitation management of amputations. Design, fabrication and fitting of prosthetic devices as well as

general orthotic principles examined. Basic clinical problem solving skills integrated in the context of prosthetic and orthotic management of patients.

**Prerequisites** Graduate standing in Physical Therapy.

**Corequisite** DPT 750

DPT 751 - Women's Health in Physical Therapy

Credits 2

Overview of the anatomical, physiological, nutritional, psychological, and sociological influences throughout the woman's life span including: adolescence, the reproductive years, the middle years, the older age. Discussion of physical therapy management of musculoskeletal, integumentary, cardiopulmonary, and visceral pathologies common to women.

**Prerequisites** Graduate standing in physical therapy.

DPT 752 - Physical Agents and Electrophysiology

Credits 3

Biological processes of injury and repair, clinical application of soft tissue techniques, thermal agents, intermittent compression, continuous motion, electrical stimulation, and mechanical traction. Principles of electrophysics and neurophysiology as they pertain to the use of therapeutic electrical stimulation. Advancement to clinical decision-making skills in physical application.

**Prerequisites** Graduate standing in Physical Therapy. DPT 742, 730, 732.

**Corequisite** DPT 752L

DPT 752L - Physical Agents and Electrophysiology

Lab

Credits 1

Hands on performance and clinical application of soft tissue techniques, thermal agents, intermittent compression, continuous motion, electrical stimulation, mechanical traction, therapeutic electrical stimulation.

**Prerequisites** Graduate standing in Physical Therapy. DPT 742, 730, 732.

**Corequisite** DPT 752

DPT 753 - Electrotherapy

Credits 2

Principles of a electrophysics and neurophysiology as they pertain to the use of therapeutic electrical stimulation. Application techniques of various

electrical stimulation devices also presented.

**Prerequisites** DPT 742, DPT 752, DPT 730, DPT 732.

DPT 754 - Orthopaedic Assessment in Physical Therapy

Credits 3

Evaluation and assessment of upper and lower extremity orthopaedic problems. Discussion and application of functional anatomy, biomechanics, and evaluative manual therapy skills used to differentially diagnose orthopaedic pathologies and disorders.

**Prerequisites** DPT 730, DPT 730L, DPT 741, DPT 744, DPT 744L, DPT 745, DPT 745L

**Corequisite** DPT 754L

DPT 754L - Orthopaedic Assessment in Physical Therapy Lab

Credits 1

Evaluation and assessment of upper and lower extremity orthopaedic problems. Practical application of functional anatomy, biomechanics, and evaluative manual therapy skills used to differentially diagnose orthopaedic pathologies and disorders.

**Prerequisites** DPT 730, DPT 730L, DPT 741, DPT 744, DPT 744L, DPT 745, DPT 745L

**Corequisite** DPT 754

DPT 755 - Geriatric and Pediatric Rehabilitation

Credits 3

Examination of factors affecting normal and pathologic systems from birth into aging. Issues include normal developmental sequences and common pathologies across the life span. Evaluation, wellness and leisure activities, and how basic rehabilitation procedures can be modified for the elderly.

**Prerequisites** Graduate standing in physical therapy.

DPT 756 - Neurophysiology

Credits 4

High level immersion into the function of the human central and peripheral nervous systems based on current research and theory. Topics include normal human motor and sensory neurophysiology, cognitive and learning neurophysiology, neuropathophysiology, neuroplasticity, neurodiagnostics and neurologic treatment options.

**Prerequisites** DPT 746

DPT 757 - Wound Care

Credits 2

Clinical practice of wound care including physiology of tissue healing, wound assessment tools, dressings and treatment approaches. Processes and diseases most frequently encountered in physical therapy practice specializing in wound care.

**Prerequisites** DPT 742, DPT 752

DPT 758 - Diagnostic Testing and Imaging

Credits 2

Presentation of diagnostic tests used by disciplines and specialties within and outside of the profession of physical therapy. Discussion of blood studies, nuclear medicine studies, and radiologic/X-ray studies. Interpretation of test results as it applies to physical therapy evaluation, intervention planning and treatment.

**Prerequisites** Graduate standing in physical therapy.

DPT 759 - Pediatric Rehabilitation

Credits 2

Provides foundational knowledge of development (typical and atypical) and an overview of pediatric physical therapy practice for children with atypical development. Presents examination, evaluation, and development of physical therapy plans of care for children with various disabilities within the frameworks of family-centered care and disablement/enablement models.

**Prerequisites** Graduate standing in Physical Therapy.

**Corequisite** DPT 759L

DPT 759L - Pediatric Rehabilitation Laboratory Experience

Credits 1

Focuses on application of developmental concepts and an overview of pediatric physical therapy practice for children with atypical development. Provides students with opportunities to observe/engage in examination, evaluation, and development of physical therapy plans of care for children with various disabilities within the frameworks of family-centered care and enablement models

**Prerequisites** Graduate standing in Physical Therapy.

**Corequisite** DPT 759



DPT 761 - Supervised Clinical Education I  
Credits 3

The first clinical affiliation is a supervised full-time extended clinical learning experience six weeks in duration. The primary purpose is to provide students with the opportunity to actively engage in learning in order to develop introductory clinical competence in the delivery of services to persons with movement dysfunction.

**Prerequisites** Successful completion of all course work in the first year of the graduate physical therapy program.

DPT 762 - Supervised Clinical Education II  
Credits 5

The second clinical affiliation is a supervised, full-time extended clinical learning experience 11 weeks in duration. The primary purpose is to provide students with the opportunity to actively engage in experiential learning in order to advance clinical competence in the delivery of services to persons with movement dysfunction.

**Prerequisites** DPT 761

DPT 763 - Supervised Clinical Education III  
Credits 5

The third clinical affiliation is ten and one-half weeks and is a supervised full-time extended clinical learning experience. The primary purpose is to provide students with the opportunity to actively engage in experimental learning in order to advance clinical competence in the delivery of services to persons with movement dysfunction.

**Prerequisites** DPT 762

DPT 764 - Supervised Clinical Education IV  
Credits 6

The fourth clinical affiliation is twelve weeks and is a supervised full-time extended clinical learning experience. The primary purpose is to provide students with the opportunity to actively engage in experiential learning in order to advance clinical competence in the delivery of services to persons with movement dysfunction.

**Prerequisites** DPT 763

DPT 765 - Clinical Education V  
Credits 4

This nine-week clinical affiliation is an extended learning experience for students completing the

transitional physical therapy doctorate. The primary purpose is to provide students the opportunity to advance clinical competence in the delivery of physical therapy services to persons with movement dysfunction.

**Prerequisites** Successful completion or concurrent work in all course work to date in the transitional doctorate physical therapy program.

DPT 770 - Cardiopulmonary Rehabilitation  
Credits 1

Evaluation and treatment of patients with acute and chronic cardiopulmonary disease and dysfunction. Emphasis on regulation of cardiac, circulatory and pulmonary functions at rest and the responses of these systems to differing modes, intensities, and durations. Prerequisite: Graduate standing in physical therapy.

**Prerequisites** Graduate standing in physical therapy.

**Corequisite/Prerequisite**

DPT 770L

DPT 770L - Cardiopulmonary Rehabilitation Lab  
Credits 1

Lab of basic patient skills including assessment of vital signs, breathing patterns, heart sounds, ECG interpretation, pulmonary function testing, blood gases, chest wall mobility, cough and sputum, ventilation, performance of bronchial drainage, prescribe exercises for patient with compromised cardiopulmonary function.

**Corequisite** DPT 770

DPT 772 - Physical Therapy Administration  
Credits 2

General principles of organizations and administration that impact the ethical and legal aspects of physical therapy practice. Topics include budget development, cost accounting, supervision, communication skills, evaluative techniques, and methods of management and quality assurance.

**Prerequisites** Graduate standing in physical therapy.

DPT 774 - Psychosocial Aspects of Physical Therapy  
Credits 2

Social and psychological issues which arise during illness examined and discussed in an open class discussion format. Emphasis on self-awareness as well as awareness of others with respect to cultural differences, religious beliefs, addictions, and coping

strategies during stress.

**Prerequisites** Graduate standing in physical therapy.

DPT 780 - Balance and Vestibular Rehabilitation  
Credits 2

This course will introduce students to principles and theories of rehabilitation for the patient with balance dysfunction. There will be emphasis on sound clinical reasoning and assessment of balance impairment and disability. Students will be exposed to theoretical applications of different treatment modalities in balance and vestibular rehabilitation.

**Prerequisites** Enrollment in professional DPT curriculum.

DPT 785 - Orthopaedic Rehabilitation  
Credits 2

Manual therapy and therapeutic exercise techniques for the extremities with emphasis on integrating these techniques into treatment regimes for specific orthopaedic pathologies/disorders. Includes pathogenesis, clinical presentation, medical/surgical management and rehabilitation. Review, integrate, and enhance knowledge from previous course work as it pertains to appropriate entry-level application.

**Prerequisites** DPT 732, DPT 741, DPT 754

**Corequisite** DPT 785L

DPT 785L - Orthopaedic Rehabilitation Lab  
Credits 1

Orthopaedic Rehabilitation lab with supervised integration of manual therapy and therapeutic exercise techniques for the extremities. Focus will be on developing and providing treatment regimes for specific orthopaedic pathologies/ disorders. Students will refine skills from previous course work as it pertains to appropriate entry-level application.

**Prerequisites** DPT 732, DPT 741, DPT 754.

**Corequisite** DPT 785

DPT 786 - Neurological Rehabilitation  
Credits 3

Course fosters clinical reasoning and critical analysis skills across elements of patient client management for individuals with neurologically-based movement disorders. Students are exposed to theory and movement science as related to clinical reasoning. Students are expected to incorporate professional behavior, scientific and clinical knowledge and critical analysis to clinical

applications.

**Prerequisites** DPT 730, DPT 732, DPT 744, DPT 745, DPT 746, DPT 756.

**Corequisite** DPT 786L

DPT 786L - Neurologic Rehabilitation Laboratory  
Experience  
Credits 1

Course emphasizes hands-on skill development, clinical reasoning, and critical analysis skills for all elements of patient-client management for individuals with neurologically-based movement disorders across the lifespan. Students are expected to incorporate professional behavior, scientific and clinical knowledge, critical analysis and competent skill performance in laboratory and practical skill application.

**Corequisite** DPT 786

DPT 787 - Integrated Rehabilitation  
Credits 2

Assessment and treatment of advanced orthopedics, advanced neurological, and spinal cord injured patients utilizing comprehensive techniques for spinal cord injury (SCI), orthopedics, and neurological treatment. Through dynamic patient case problems, students evaluate, plan, and implement course of treatment.

**Prerequisites** Graduate standing in Physical Therapy and DPT 785 and DPT 786.

**Corequisite** DPT 787L

DPT 787L - Integrated Rehabilitation Lab  
Credits 1

Hands on assessment and treatment of advanced orthopedics, advanced neurological, and spinal cord injured patients utilizing comprehensive techniques for spinal cord injury (SCI), orthopedics, and neurological treatment. Through dynamic patient case problems, students will be able to evaluate, plan, and implement a course of treatment.

**Prerequisites** Graduate standing in Physical Therapy and DPT 785 and DPT 786.

**Corequisite** DPT 787

DPT 788 - Spine Examination and Treatment  
Credits 2

Spine examination including biomechanics, observation, range of motion, muscle strength, joint play and special tests. Inclusion of examination

schema, clinical reasoning skills and differential diagnosis of commonly seen spine pathology. Emphasis on hands-on examination, assessment, and treatment including manual therapy, spinal mobilization and spinal manipulation skills.

**Prerequisites** Graduate standing in physical therapy.

**Corequisite** DPT 788L

DPT 788L - Spine Examination and Intervention Lab  
Credits 1

Lab sessions focusing on hands-on examination, assessment, and treatment of spine dysfunction, including manual therapy, spinal mobilization and spinal manipulation skills.

**Prerequisites** Graduate standing in Physical Therapy or consent of instructor.

**Corequisite** DPT 788

DPT 790 - Clinical Research in Physical Therapy  
Credits 3

Introduction to principles and concepts of clinical research in physical therapy. Covers development of the research question, measurement issues, statistical analysis, literature review, and writing of results.

**Prerequisites** Graduate standing in physical therapy.

DPT 791 - Applied Research Statistics  
Credits 3

Review of foundations, concepts of measurement, and design in clinical research. Emphasis on hands-on data analysis of clinically relevant physical therapy research designs including descriptive statistics, statistical inference, analysis of differences, and analysis of relationships.

**Prerequisites** Graduate standing in physical therapy.

DPT 793 - Seminar  
Credits 1

Preparation and presentation of seminars on topics of current interest in physical therapy and rehabilitation. Topic changes by semester and by course instructor; see class schedule for details.

**Prerequisites** Enrollment in professional DPT curriculum.

DPT 795 - Independent Study  
Credits 1 – 6

Students pursue a topic related to physical therapy beyond that covered in the graduate curriculum. Satisfactory completion accomplished through

individualized, self-directed study. Topics based on student preference and faculty approval. Faculty and student jointly determine goals, objective and evaluation methods.

**Notes**

May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing in physical therapy.

DPT 798 - Directed Research  
Credits 1 – 6

Critical inquiry by participating in new or ongoing research with faculty who serve as project advisors. Students summarize research by a written report and present each project orally to the faculty and area clinicians.

**Notes**

May be repeated to a maximum of six credits.

**Prerequisites** DPT 790

PTS 744 - Gross Human Anatomy  
Credits 3

Gross anatomy studied regionally stressing relationships of major structures, organs, vessels and nerves. Prosected human cadaver observation by students included in laboratory session (PTS 744L). All major areas of the body covered. Reference to the relationship of anatomical structures to pathology, traumatic injury and medicine stressed.

**Prerequisites** Undergraduate Anatomy, Physiology or Biology lab course.

**Corequisite** PTS 744L

PTS 744L - Gross Human Anatomy Lab  
Credits 1

Gross human anatomy cadaver lab with supervised examination and exploration of prosected human cadavers. All major areas of the body are covered. References to the relationship of anatomical structures to pathology, traumatic injury and medicine stressed.

**Prerequisites** Undergraduate Anatomy, Physiology or Biology lab course or equivalent.

**Corequisite** PTS 744

PTS 747 - Human Neuroanatomy  
Credits 3

High level immersion, including cadaveric prosection, into the anatomy of the central nervous system, emphasizing structure and functional relationships. Coursework will also relate these

structural relationships to brain dysfunction and pathology.

**Prerequisites** Graduate standing.

## School of Community Health Sciences

The purpose of the School of Community Health Sciences (SCHS) is to prepare individuals to become effective public health practitioners, health care managers and administrators, and other health professionals who will competently identify public health problems and needs, develop effective mechanisms to address those needs, and promote appropriate services for the protection of human health. The SCHS is actively involved in educational, research, and outreach programs in public health with the expectation to be nationally recognized as innovative, comprehensive in nature and scope, cooperative in character, and ensure that graduates can serve as catalysts to promote population health in Nevada, the nation and the world.

### Shawn Gerstenberger, Ph.D., Dean

## Community Health Sciences Faculty

### Founding Dean

**Mary Guinan** - *Full Graduate Faculty*  
Professor of Epidemiology and Community Health; M.D., Johns Hopkins University; Ph.D., University of Texas. *Rebel since 2004.*

### Dean

**Shawn Gerstenberger** - *Full Graduate Faculty*  
Professor of Environmental and Occupational Health; B.S., University of Wisconsin-Platteville University; M. S., Ph.D., University of Illinois. *Rebel since 1997.*

### Graduate Coordinators

**Chino, Michelle** (MPH, M.Ed, & Ph.D. Programs) - *Full Graduate Faculty*  
Associate Professor of Environmental and Occupational Health, B.S., M.S., Ph.D. University of New Mexico. *Rebel since 2000.*

**Shen, Jie** - *Full Graduate Faculty*  
Associate Professor and Chair of Health Care Administration and Policy; Ph.D. Virginia Commonwealth University. *Rebel since 2006.*

### SCHS Graduate Faculty

**Abella, Scott**  
Associate Research Professor of Environmental and Occupational Health; B.S. Grand Valley State University; M.S. Clemson University; Ph.D. Northern Arizona University. *Rebel since 2011.*

**Bungum, Timothy** - *Full Graduate Faculty*  
Associate Professor of Biostatistics and Epidemiology; B.A. Luther College; M.S., D.P.H. University of South Carolina. *Rebel since 2001.*

**Buttner, Mark P.** - *Full Graduate Faculty*  
Associate Professor of Environmental and Occupational Health; B.S. University of Wisconsin; M.S. University of Nevada Las Vegas; Ph.D. University of Nevada Reno. *Rebel since 1989.*

**Chino, Michelle** - *Full Graduate Faculty*  
Associate Professor of Environmental and

Occupational Health; B.S., M.S., Ph.D. University of New Mexico. *Rebel since 2000.*

**Cochran, Christopher** - *Full Graduate Faculty*  
Associate Professor of Health Care Administration and Policy; B.A. University of Texas, El Paso; M.P.A.; Ph.D. University of South Carolina. *Rebel since 1997.*

**Cruz, Patricia** - *Full Graduate Faculty*  
Associate Professor of Environmental and Occupational Health; B.S. University of Puerto Rico; M.S. University of Central Florida; Ph.D. University of Nevada Reno. *Rebel since 1995.*

**Dodge Francis, Carolee** - *Full Graduate Faculty*  
Assistant Professor of Environmental and Occupational Health; B.S., M.A., Ed.D., University of St. Thomas. *Rebel since 2007.*

**Gerstenberger, Shawn** - *Full Graduate Faculty*  
Professor of Environmental and Occupational Health; B.S., University of Wisconsin- Platteville University; M. S., Ph.D., University of Illinois. *Rebel since 1997.*

**Ginn, Gregory** - *Full Graduate Faculty*  
Associate Professor of Health Care Administration and Policy; B.A., M.Ed., MBA, Ph.D. University of Texas, Austin. *Rebel since 2000.*

**Liu, Darren** - *Full Graduate Faculty*  
Assistant Professor of Health Care Administration and Policy; B.S. Kaohsiung Medical University, Taiwan; M.H.A. China Medical University, Taiwan; M.S. University of Pittsburgh; Dr. P.H. University of Pittsburgh. *Rebel since 2011.*

**Moonie, Sheniz**  
Associate Professor of Biostatistics and Epidemiology; B.S., University of California San Diego; M.S., California Polytechnic University, Pomona; Ph.D. Saint Louis University. *Rebel since 2006.*

**Pinheiro, Paulo** - *Full Graduate Faculty*  
Assistant Professor of Epidemiology.

**Regin, Charles** - *Full Graduate Faculty*  
Assistant Professor of Health Promotion, B.S., M.S. University of Wisconsin-La Crosse; Ph.D. Southern Illinois University. *Rebel since 1987.*

**Shen, Jie** - *Full Graduate Faculty*  
Associate Professor and Chair of Health Care Administration and Policy; Ph.D. Virginia Commonwealth University. *Rebel since 2006.*

**Stetzenbach, Linda** - *Full Graduate Faculty*  
Professor Emerita of Environmental and Occupational Health; B.S., M.S., Ph.D., University of Arizona. *Rebel since 2005.*

**Thompson-Robinson, Melva** - *Full Graduate Faculty*  
Associate Professor of Health Promotion; B.S., University of Michigan; M.S. Ohio University; D.P.H., University of South Carolina. *Rebel since 2004.*

**Wong, David** - *Full Graduate Faculty*  
Associate Research Professor; B.Sc., M.Sc., Ocean University of Qingdao; Ph.D. City University of Hong Kong. *Rebel since 2008.*

## Master of Education in Health Promotion

The goal of the 36-semester credit hour Health Promotion graduate program is to provide students with the theory, knowledge, and skills needed to integrate the principles of health promotion into a variety of community, research, clinical, business or school settings and/or to pursue advanced study. Specifically, the Health Promotion degree program will prepare students to: 1) assess and communicate individual, family, and community needs, 2) plan, implement, evaluate, and administer programs, 3) act as a resource person by coordinating provisions for services and applying appropriate research principles and methods, and 4) advance the goals of job-related professional organizations. To this end, eight concentrations in the Health Promotion degree are offered.

The **Administration** concentration is designed for those interested in assuming leadership roles in their organization such as health program planners, health care project specialists, or health officers. The **Communication** concentration is designed for individuals interested in the dissemination of health promoting information and skills through varied strategies leading to health media specialist or health communication expert occupations.

The **Counseling** concentration is designed for anyone wishing to assist others one on one or in small groups regarding effective and positive strategies dealing with critical health issues. Such professionals include, but are not limited to, employee assistance program educators, patient educators, or mental health counselors.

The **Education** concentration is designed to improve the delivery skills of any educator at any teaching level, at varied sites such as school health teachers, public health educators, and employee wellness associates.

The **Environmental Health** concentration is designed for those individuals seeking occupations such as health and safety specialists or environmental health consultants due to an interest in the relationship that exists between the physical environment and the health of individuals and groups

in that environment.

The **Gerontology** concentration is designed for individuals who are interested in health promotion strategies geared specifically for older adults delivered through professional roles such as gerontology outreach workers or program planners for seniors.

The **Nutrition and Fitness** concentration is designed for those interested in the fields of corporate health promotion or personal wellness training who desire to advise individuals and groups regarding eating choices and activity regimens to enhance performance and health.

The **Interdisciplinary** concentration, clearly the most flexible, is designed for those students with specific needs who would be best served by selecting a myriad of graduate courses from across campus. Individuals such as school nurses, epidemiologists, and industrial hygienists could benefit from the individualized approach offered in this concentration.

## Admission Requirements

(This program is no longer offering admission.)

## Degree Requirements

The Master in Education in Health Promotion requires a minimum of 36 semester hours.

1. A student must maintain a 3.00 GPA.
2. A student may take courses full or part time, with day and evening classes available.
3. Students must either take a comprehensive exam and successfully complete an additional three credits of advisor approved course work or successfully complete HED 750 Graduate Project in Health Promotion to fulfill the requirement of a capstone experience in the degree program.
4. Master's degrees must be completed within a six-year period, and continuous enrollment must be maintained throughout the six years.

## Curriculum

The curriculum for the M.Ed. in Health Promotion consists of the following:

Health Promotion Core Requirements - Total Credits: 12

HED 705 - Theoretical Foundations in Health Promotion  
HED 720 - Program Planning and Grant Writing in Health Promotion  
HED 730 - Program Evaluation in Health Promotion  
HED 735 - Practical Applications in Health Promotions

Health Promotion Research Core Requirements - Total Credits: 9

HED 725 - Epidemiology and Public Health  
or  
EAB 705 - Epidemiology and Public Health  
or

COM 603 - Public Communication

EPY 702 - Research Methods  
or  
EAB 700 - Research Methods for Public Health  
EPY 718 - Qualitative Research Methodologies  
or  
EOH 715 - Qualitative & Field Methods for Public Health  
or  
EPY 721 - Descriptive and Inferential Statistics: An Introduction  
or  
EAB 703 - Biostatistical Methods for the Health Sciences

**Health Promotion Capstone Experience - Total Credits: 3**

HED 750 - Graduate Project in Health Promotion  
or  
Comprehensive Exam and advisor approved course(s)  
or  
HED 755 - Thesis Research

Selected Concentrations - Total Credits: 12

*Administration Concentration*

HCA 701 - U.S. Health Care System: Programs and Policies

HCA 703 - Management of Health Service Organizations and Systems  
HCA 718 - Health Care Economics  
HCA 716 - Health Care Accounting and Finance  
HCA 719 - Operations and Quality Management of Health Services  
HCA 720 - Information Systems in Health Services Management  
HCA 717 - Human Resources Management of Health Care Organizations  
HCA 761 - Health Care Law and Ethics for Managers  
PUA 701 - Governance and the Urban Community  
PUA 705 - Public Goods and Public Finance  
PUA 708 - Organizations and Organizational Behavior  
PUA 719 - Personnel Assessment and Selection  
PUA 740 - Urban Administration  
PUA 792 - Current Issues in Public Administration

See the Department of Health Promotion for additional curricular information.

*Communication Concentration*

COM 604 - Principles of Persuasion  
COM 607 - Communication Between the Sexes  
COM 634 - Conflict Management  
COM 684 - Political Communication  
COM 706 - Seminar in Intercultural Communication  
COM 710 - Survey of Communication Studies  
COM 712 - Empirical Research Methods  
COM 725 - College Teaching in Communication  
COM 730 - Theories of Communication  
COM 741 - Social Movements as Rhetorical Form  
COM 780 - Persuasion  
COM 781 - Seminar in Argumentation  
COM 784 - Political Communication  
COM 789 - Selected Topics in Communication

See the Department of Health Promotion for additional curricular information.

*Counseling Concentration*

COU 610 - Eating Disorders: Etiology and Treatment  
CED 639 - Problem Gambling Counseling I  
CED 640 - Problem Gambling Counseling II  
CED 645 - Trauma and Addiction  
CED 661 - Use and Application of Technology in Counseling  
CED 699 - Special Topics  
CED 700 - Special Problems: Counseling and Educational Psychology  
CED 701 - Introduction to Counseling  
CED 703 - Counseling with Expressive Arts and



#### Activities

CED 710 - Relationships Through the Lifespan  
CED 711 - Counseling Appraisal and Inquiry  
CED 713 - Introduction to School Counseling  
CED 715 - Counseling and Consultation Theories  
CED 721 - Career Theories and Practices  
CED 727 - Counseling Process and Procedures  
CED 733 - Introduction to Group Counseling  
CED 735 - Substance Abuse Prevention and Treatment  
CED 738 - Introduction to Community Mental Health Counseling  
CED 739 - Vocational Placement and Community Resources  
CED 742 - Introduction to Community Counseling  
CED 743 - Ethical and Legal Issues in Counseling  
CED 745 - Assessment, Treatment, and Case Management in Addictions  
CED 755 - Planning, Management, and Evaluation of Addictions and Mental Health Programs  
CED 766 - Psychopathology and Wellness Models in Counseling  
CED 772 - Counseling and Spirituality  
CED 781 - Problem Gambling Counseling  
CED 782 - Counseling with Potential Suicides  
CED 785 - Eating Disorders Counseling  
CED 789 - The Student in Higher Education

See the Department of Health Promotion for additional curricular information.

#### *Education Concentration*

EDW 746 - History and Development of Two Year Postsecondary Institution  
EDW 747 - Workforce Education Teaching  
CIG 660 - Multicultural Education  
CIG 662 - Theory and Research Multicultural Education  
CIT 602 - Technology Applications Secondary Curriculum  
CIT 608 - Integrating Technology in Teaching and Learning  
CIG 601 - Curriculum and Instruction Urban Settings  
HED 607 - Stress Management  
SW 622 - AIDS: An Interdisciplinary Perspective

See the Department of Health Promotion for additional curricular information.

#### An Interdisciplinary Perspective

HED 629 - Education for Sexuality  
HED 630 - Nutrition  
HED 635 - Health Studies on Dangerous Drugs

HED 640 - Health Promotion and Wellness  
ECE 709 - Investigations in Early Childhood Education  
ESP 701 - Introduction to Special Education and Legal Issues

See the Department of Health Promotion for additional curricular information.

#### *Environmental Health Concentration*

EOH 702 - Community Based Participatory Research Methods  
EOH 711 - Diseases that Changed the World  
EOH 713 - Public Health Law  
EOH 732 - Children, Development, Health, and the Environment  
EOH 740 - Fundamentals of Environmental Health  
EOH 747 - Transmission of Infectious Disease  
EOH 757 - Parasitology and Public Health  
EOH 760 - Racial and Ethnic Disparities in Health  
EOH 765 - Seminar in Environmental Justice and Public Health  
EOH 767 - Airborne Pathogens and Human Health  
EOH 769 - Advanced Pollution Ecology  
EOH 777 - Emerging Infectious Disease  
EOH 601 - Advanced Environmental Toxicology

See the Department of Health Promotion for additional curricular information.

#### *Gerontology Concentration*

Students may select one (3 credits) of the remaining courses

THTR 793 - Special Topics in Theatre  
SOC 684 - Sociology of Death and Dying (Spring and sometimes Summer)  
SOC 682 - Aging and Social Policy

See the Department of Health Promotion for additional curricular information.

For those students wishing to complete the coursework for a Certificate in Gerontology, the following must be completed:

PSY 442 - Psychology of Aging (prerequisite PSY 101) usually offered every semester and the Summer  
KIN 461 - Physical Activity in Aging-(usually offered every year, varies between Fall and Spring)  
KIN 462 - Adult Development in Aging (usually

offered every year varies Between Fall and Spring)  
NUR 486 - Aging and Social Policy (every Spring)

#### Nutrition and Fitness Concentration

KIN 605 - Sports Nutrition  
KIN 685 - Physical Activity and the Law  
KIN 691 - Exercise Physiology  
KIN 737 - Biomechanics of Strength  
KIN 739 - Evaluation of Physical Working Capacity  
KIN 740 - Advanced Exercise Physiology  
KIN 745 - Human Energy Metabolism

See the department for additional curricular information.

#### Interdisciplinary Concentration

In addition to the courses listed above, students may select, with guidance and approval from their advisor, any graduate-level course that meets individual and professional needs identified by students. The core courses in health promotion also provide substantive contributions to other graduate programs offered across campus. These programs include, but are not limited to, those programs offered by the College of Business and the departments of Communication Studies, counseling, Curriculum and Instruction, Economics, Educational Leadership, Kinesiology, Political Science, Psychology, Public Administration, Sociology, Special Education and the Schools of Journalism and Media Studies and Social Work.

The design of the concentration component must revolve around a consistent theme and be relevant to the goals and objectives of the program and of the student. Design is to ensure a breadth and depth in a supportive area of concentration such as curriculum and instruction, special education, health promotion, school athletic administration, educational leadership, education administration, sport and recreational management, and psychology of sport.

## Master of Public Health

### Plan Description

The Master of Public Health Degree Program is designed to prepare students to be Public Health professionals in the private and public sectors with the overall goal of promoting and protecting the health of individuals in our society.

### Educational Objectives

The purpose of the MPH Program is to prepare individuals to become effective health care practitioners, researchers and teachers who will competently identify public health problems and needs, develop effective strategies to address those needs, and promote appropriate services to be available for the protection of human health.

At a minimum, the following criteria should be met to assure each student a) develops an understanding of the areas of knowledge that are basic to public health, b) acquires skills and experience in the application of basic public health concepts and of specialty knowledge to the solution of community health problems, and c) demonstrates integration of knowledge through a capstone experience.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Application deadlines

Applications available on the UNLV Graduate College website.

To be considered for admission to the MPH, an applicant must:

1. Hold a bachelor's degree or recognized equivalent from a regionally accredited institution and have adequate preparation in the biological, physical, or social sciences. A criterion for admission is at least a B (3.0) grade-point average or the equivalent in work completed after the first two years of a

bachelor's degree program and in all post-baccalaureate course work.

2. Completion of the school's application process.
3. Submit a personal essay describing what you perceive to be pressing public health issues, why a career in the field appeals to you, and how it will use your strengths and commitment.
4. Three letters of recommendation.
5. Take and submit scores for the Personal Potential Index (PPI) exam.
6. All applicants to the MPH program who do not have a master's degree or higher will be required to submit GRE or equivalent (e.g., MCAT, LSAT) test scores no more than 5 years old.
7. All applicants will submit the ETS Personal Potential Index (PPI) exam.
8. Unofficial copies to the School of Public Health.
9. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

#### *Dental Fast Track Program*

The Doctorate of Dental Medicine-Fast Track Masters of Public Health program is designed for those who seek a deeper understanding of disease prevention, medical delivery, and health promotion at both an individual and population level within the field of dentistry. The program enables students who graduate with both the Masters of Public Health and the Doctorate of Dental Medicine to become leaders in oral health research, education, and community dental health promotion. After completing the program, graduates will be eligible to apply for a position within a dental public health residency program.

Students interested in applying for the DMD-Fast Track MPH program should begin by applying for admissions to the UNLV School of Dental Medicine. Please see the School of Dental Medicine website for specific requirements and deadlines.

Current dental students interested in the Fast Track MPH program are encouraged to submit an

application for permission to enter the program to the UNLV School of Dental Medicine Assistant Dean for Admissions and Student Affairs. This request form must accompany the Graduate College application for admissions into the MPH program. Completed packets will be submitted to the Graduate College for admissions to the Masters of Public Health program.

Students must indicate on their Graduate College application form that they are registering for the DMD-Fast Track MPH program and present evidence of being a current dental student in good standing by submitting a signed SDM application for permission to enter the program. While a dental student may apply for the fast track program at any time, they may not register for classes within the College of Community Health Sciences until the Fall semester of their sophomore year. Students will also be limited in the number of MPH classes they are allowed to pursue during their sophomore year of dental school. A cap of one MPH class a semester will be enforced. The junior and senior year of dental school, students in the fast track program will be allowed to take heavier course loads unless specifically stated otherwise by the Assistant Dean for Admissions and Student Affairs at the School of Dental Medicine.

#### *MD Fast Track Program*

The MD Fast Track is designed for physicians and residents who seek professional development in the area of public health and public health research.

1. Applicants for the Medical Professional Fast Track must have an M.D., O.D., DMD, DDS or equivalent professional medical degree from an accredited Institution and/or be a practicing physician or dentist at an area hospital or Medical Facility.
2. Applicants will apply through the current Graduate College application system.
3. In addition to Graduate College Requirements applicants will submit a resume/CV and a statement of purpose.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

## Plan Requirements

*See Subplan Requirements below.*

### Subplan 1 Requirements: Social and Behavioral Health Track

Total Credits Required: 45

Course Requirements

#### Required Courses – Credits: 18

EOH 710/HED 710 - Fundamentals of Public Health  
EOH 740 - Fundamentals of Environmental Health  
EAB 705 - Epidemiology and Public Health  
HCA 701 - U.S. Health Care System: Programs and Policies  
HED 720 - Program Planning and Grant Writing in Health Promotion  
EAB 703 - Biostatistical Methods for the Health Sciences

#### Social and Behavioral Health Courses – Credits: 6

HED 705 - Theoretical Foundations in Health Promotion  
HED 730 - Program Evaluation in Health Promotion

#### Methods Courses – Credits: 3

Complete one of the following courses:

EAB 700 - Research Methods for Public Health  
EOH 715 - Qualitative & Field Methods for Public Health

#### Social Health Courses – Credits: 3

Complete one of the following courses:

EOH 705 - Social Epidemiology  
EOH 760 - Racial and Ethnic Disparities in Health

#### Internship – Credits: 3

EOH 793 - Internship in Environmental Health

An additional 3 credits of internship may be taken as an elective for a total of 6 credits of internship.

#### Elective Courses – Credits: 6-9

Students completing a thesis must complete six credits of elective coursework, and students completing a project must complete nine credits of elective coursework. Select from the following list:

HED 607 - Stress Management  
HED 627 - Methods in Health Education  
HED 629 - Education for Sexuality  
HED 630 - Nutrition  
HED 635 - Health Studies on Dangerous Drugs  
HED 760 - Technology in Health Promotion  
EOH 793 - Internship in Environmental Health

#### Culminating Experience – Credits: 3-6

Complete one of the following:

HED 750 - Graduate Project in Health Promotion  
HED 755 - Thesis Research

#### Degree Requirements

1. Completion of a minimum of 45 credit hours with a minimum GPA of 3.00.
2. In consultation with his/her advisor, a student will organize a committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Successfully complete the graduate project or successfully complete and defend a thesis by the posted deadline. The defense must be advertised and is open to the public.
3. If a thesis is completed, the student must submit his/her approved, properly formatted document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## **Subplan 2 Requirements: Environmental and Occupational Health Track**

Total Required Credits: 45

Course Requirements

### **Required Courses – Credits: 18**

EOH 710/HED 710 - Fundamentals of Public Health

EOH 740 - Fundamentals of Environmental Health

EAB 705 - Epidemiology and Public Health

HCA 701 - U.S. Health Care System: Programs and Policies

HED 720 - Program Planning and Grant Writing in Health Promotion

EAB 703 - Biostatistical Methods for the Health Sciences

### **Environmental and Occupational Health Courses – Credits: 3**

EOH 601 - Advanced Environmental Toxicology

### **Health and Safety Courses – Credits: 6**

EOH 717 - Food Safety and Public Health

EOH 747 - Transmission of Infectious Disease

### **Environmental Courses – Credits: 3**

EOH 765 - Seminar in Environmental Justice and Public Health

### **Skill Development Courses – Credits: 6**

EAB 700 - Research Methods for Public Health

EOH 709 - Scientific/Technical Writing for the Health and Life Sciences

### **Internship – Credits: 3**

EOH 793 - Internship in Environmental Health

An additional 3 credits of internship may be taken as an elective for a total of 6 credits of internship.

### **Elective Courses – Credits: 0-3**

Students completing a project must complete three credits of elective coursework. Select from the following list:

EOH 705 - Social Epidemiology

EOH 713 - Public Health Law

EOH 715 - Qualitative & Field Methods for Public Health

EOH 732 - Children, Development, Health, and the Environment

EOH 757 - Parasitology and Public Health

EOH 760 - Racial and Ethnic Disparities in Health

EOH 765 - Seminar in Environmental Justice and Public Health

EOH 767 - Airborne Pathogens and Human Health

EOH 769 - Advanced Pollution Ecology

EAB 716 - The Epidemiology of Obesity

EOH 777 - Emerging Infectious Disease

EOH 795 - Special Topics in Public Health

EOH 796 - Independent Study in Environmental Health

HED 705 - Theoretical Foundations in Health Promotion

### **Culminating Experience – 3-6**

Complete one of the following:

EOH 794 - Professional Paper in Environmental Health

EOH 798 - Thesis Research (6 credits)

Degree Requirements

1. Completion of a minimum of 45 credit hours with a minimum GPA of 3.00.
2. In consultation with his/her advisor, a student will organize a committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation from up to two semesters prior to completing his/her degree requirements.
2. Successfully complete the professional paper or successfully complete and defend a

thesis by the posted deadline. The defense must be advertised and is open to the public.

3. If a thesis is completed, the student must submit his/her approved, properly formatted document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 3 Requirements: Health Care Administration and Policy Track**

Total Required Credits: 45

Course Requirements

#### **Required Courses – Credits: 18**

EOH 710 /HED 710 - Fundamentals of Public Health

EOH 740 - Fundamentals of Environmental Health

EAB 705 - Epidemiology and Public Health

HCA 701 - U.S. Health Care System: Programs and Policies

HED 720 - Program Planning and Grant Writing in Health Promotion

EAB 703 - Biostatistical Methods for the Health Sciences

#### **Health Care Admin & Policy Courses – Credits: 15**

HCA 703 - Management of Health Service Organizations and Systems

HCA 716 - Health Care Accounting and Finance

HCA 730 - Strategic Management of Health Services

HCA 719 - Operations and Quality Management of Health Services

HCA 720 - Information Systems in Health Services Management

#### **Internship – Credits: 3**

HCA 793 - Internship in Health Care Administration

An additional 3 credits of internship may be taken as an elective for a total of 6 credits of internship.

#### **Elective Courses – Credits: 3-6**

Students completing a thesis must complete three credits of elective coursework, and students completing a project must complete six credits of elective coursework. Select from the following list or choose from other advisor approved courses from the pool of university approved graduate level courses:

HCA 718 - Health Care Economics

HCA 721 - Advanced Health Care Finance

HCA 652 - Health Politics and Policy

HCA 761 - Health Care Law and Ethics for Managers

HCA 680 - Organization and Management of Long-Term Care Services

HCA 793 - Internship in Health Care Administration

HED 705 - Theoretical Foundations in Health Promotion

#### **Culminating Experience – Credits: 3-6**

Complete one of the following:

HCA 779 - Health Care Administration Capstone Course (3 credits)

HCA 799 - Thesis Research (6 credits)

Degree Requirements

1. Completion of a minimum of 45 credit hours with a minimum GPA of 3.00.
2. If the thesis option is chosen, in consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Students must receive prior approval from their committee before registering for any capstone experience.

3. Successfully pass the capstone course or successfully complete and defend a thesis by the posted deadline. The defense must be advertised and is open to the public.
4. If a thesis is completed, the student must submit his/her approved, properly formatted document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

**Subplan 4 Requirements: Biostatistics and Epidemiology Track**

Total Required Credits: 45

Course Requirements

**Required Courses – Credits: 18**

- EOH 710 /HED 710 - Fundamentals of Public Health
- EOH 740 - Fundamentals of Environmental Health
- EAB 705 - Epidemiology and Public Health
- HCA 701 - U.S. Health Care System: Programs and Policies
- HED 720 - Program Planning and Grant Writing in Health Promotion
- EAB 703 - Biostatistical Methods for the Health Sciences

**Biostatistics and Epidemiology Courses – Credits: 12**

- EAB 700 - Research Methods for Public Health
- EAB 715 - Chronic Disease Epidemiology
- EAB 725 - Epidemiology of Infectious Diseases
- EAB 763 - Linear Statistical Models

**Internship – Credits: 3**

EAB 793 - Internship in Epidemiology and Biostatistics

An additional 3 credits of internship may be taken as an elective for a total of 6 credits of internship.

**Elective Courses – Credits: 6-9**

Students completing a thesis must complete six credits of elective coursework, and students completing a professional paper must complete nine

credits of elective coursework. Select from the following list:

- EOH 705 - Social Epidemiology
- EAB 720 - Grant Writing for Epidemiology and Public Health Research
- EAB 795 - Special Topics in Epidemiology and Biostatistics
- EAB 796 - Independent Study in Epidemiology and Biostatistics
- EAB 716 - The Epidemiology of Obesity
- EAB 733 - Survey Sampling for the Health Sciences
- EAB 735 - Outbreak Investigation
- EAB 743 - Experimental Design for the Health Sciences
- EAB 753 - Nonparametric Statistics for Public Health
- EAB 773 - Survival Analysis for Public Health
- EAB 793 - Internship in Epidemiology and Biostatistics
- HED 705 - Theoretical Foundations in Health Promotion

**Culminating Experience – Credits: 3-6**

Complete one of the following:

- EAB 794 - Professional Paper in Epidemiology and Biostatistics (3 credits)
- EAB 798 - Thesis Research in Epidemiology and Biostatistics (6 credits)

Degree Requirements

1. Completion of a minimum of 45 credit hours with a minimum GPA of 3.00.
2. In consultation with his/her advisor, a student will organize a committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for

graduation up to two semesters prior to completing his/her degree requirements.

2. Students must receive prior approval from their committee before registering for any capstone experience.
3. Successfully complete the professional paper or successfully complete and defend a thesis by the posted deadline. The defense must be advertised and is open to the public.
4. If a thesis is completed, the student must submit his/her approved, properly formatted document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 5 Requirements: Dental Fast Track - Social and Behavioral Health**

Total Credits Required: 45

Course Requirements

#### **Required Courses – Credits: 18**

EOH 710 /HED 710 - Fundamentals of Public Health  
EOH 740 - Fundamentals of Environmental Health  
EAB 705 - Epidemiology and Public Health  
HCA 701 - U.S. Health Care System: Programs and Policies  
HED 720 - Program Planning and Grant Writing in Health Promotion  
EAB 703 - Biostatistical Methods for the Health Sciences

#### **Social and Behavioral Health Courses – Credits: 6**

HED 705 - Theoretical Foundations in Health Promotion  
HED 730 - Program Evaluation in Health Promotion

#### **Methods Courses – Credits: 3**

Complete one of the following courses:

EAB 700 - Research Methods for Public Health  
EAB 785 – Qualitative Methods

#### **Social Health Courses – Credits: 3**

Complete one of the following courses:

EOH 705 - Social Epidemiology  
EOH 760 - Racial and Ethnic Disparities in Health

#### **Internship – Credits: 3**

EOH 793 - Internship in Environmental Health

An additional 3 credits of internship may be taken as an elective for a total of 6 credits of internship.

#### **Elective Courses – Credits: 6-9**

Students completing a thesis must complete six credits of elective coursework, and students completing a project must complete nine credits of elective coursework. Select from the following list:

Den 7151 – Healthcare Finance and Public Health (1 credit)  
Den 7154 – Healthcare Delivery: Patient Record and HIPAA Regulations (1.5 credits)  
Den 7160 – Research and Professional Development I (1 credit)  
Den 7161 – Research and Professional Development II (1.5 credits)  
Den 7162 – Biochemical Basis of Clinical Nutrition (3 credits)  
Den 7252 – Community Outreach/Geriatric Population ( 3 credits)  
Den 7253 – Research and Analysis Methodology (1.5 credits)

#### **Culminating Experience – Credits: 3-6**

Complete one of the following:

HED 750 - Graduate Project in Health Promotion (3 credits)  
HED 755 - Thesis Research (6 credits)

Degree Requirements

1. Completion of a minimum of 45 credit hours with a minimum GPA of 3.00.
2. Students enrolled in the DMD-Fast Track MPH program must remain in good academic/ethical standing in both the individual DMD and MPH programs or may be subject to dismissal.
3. Students in the DMD-Fast Track MPH program are subject to the same rules and



regulations that apply to all students at the School of Dental Medicine and the School of Community Health Sciences.

4. Upon date of entry into the MPH program, students will be given a maximum time frame of five years in which they must satisfy the degree requirements for the Masters in Public Health degree.
5. In consultation with his/her advisor, a student will organize a committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Successfully complete the graduate project or successfully complete and defend a thesis by the posted deadline. The defense must be advertised and is open to the public.
3. If a thesis is completed, the student must submit his/her approved, properly formatted document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 6 Requirements: Dental Fast Track - Environmental and Occupational Health**

Total Required Credits: 45

#### Course Requirements

#### **Required Courses – Credits: 18**

EOH 710 /HED 710 - Fundamentals of Public Health  
EOH 740 - Fundamentals of Environmental Health  
EAB 705 - Epidemiology and Public Health  
HCA 701 - U.S. Health Care System: Programs and Policies  
HED 720 - Program Planning and Grant Writing in

Health Promotion

EAB 703 - Biostatistical Methods for the Health Sciences

#### **Environmental and Occupational Health Courses – Credits: 3**

EOH 601 - Advanced Environmental Toxicology

#### **Health and Safety Courses – Credits: 3**

Complete one of the following courses:

EOH 717 - Food Safety and Public Health  
EOH 747 - Transmission of Infectious Disease

#### **Environmental Courses – Credits: 3**

Complete one of the following courses:

EOH 765 - Seminar in Environmental Justice and Public Health  
EOH 732 - Children, Development, Health, and the Environment

#### **Skill Development Courses – Credits: 3**

Complete one of the following courses:

EAB 700 - Research Methods for Public Health  
EOH 709 - Scientific/Technical Writing for the Health and Life Sciences

#### **Internship – Credits: 3**

EOH 793 - Internship in Environmental Health

An additional 3 credits of internship may be taken as an elective for a total of 6 credits of internship.

#### **Elective Courses – Credits: 6-9**

Students completing a thesis must complete six credits of elective coursework, and students completing a project must complete nine credits of elective coursework. Select from the following list:

Den 7151 – Healthcare Finance and Public Health (1 credit)  
Den 7154 – Healthcare Delivery: Patient Record and HIPAA Regulations (1.5 credits)  
Den 7160 – Research and Professional Development I (1 credit)

Den 7161 – Research and Professional Development II (1.5 credits)

Den 7162 – Biochemical Basis of Clinical Nutrition (3 credits)

Den 7253 – Research and Analysis Methodology (1.5 credits)

### **Culminating Experience – Credits: 3-6**

Complete one of the following:

EOH 794 - Professional Paper in Environmental Health (3 credits)

EOH 798 - Thesis Research (6 credits)

### Degree Requirements

1. Completion of a minimum of 45 credit hours with a minimum GPA of 3.00.
2. Students enrolled in the DMD-Fast Track MPH program must remain in good academic/ethical standing in both the individual DMD and MPH programs or may be subject to dismissal.
3. Students in the DMD-Fast Track MPH program are subject to the same rules and regulations that apply to all students at the School of Dental Medicine and the School of Community Health Sciences.
4. Upon date of entry into the MPH program, students will be given a maximum time frame of five years in which they must satisfy the degree requirements for the Masters in Public Health degree.
5. In consultation with his/her advisor, a student will organize a committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for

graduation from up to two semesters prior to completing his/her degree requirements.

2. Successfully complete the professional paper or successfully complete and defend a thesis by the posted deadline. The defense must be advertised and is open to the public.
3. If a thesis is completed, the student must submit his/her approved, properly formatted document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 7 Requirements: Dental Fast Track - Health Care Administration and Policy**

Total Required Credits: 45

### Course Requirements

#### **Required Courses – Credits: 18**

EOH 710 /HED 710 - Fundamentals of Public Health

EOH 740 - Fundamentals of Environmental Health

EAB 705 - Epidemiology and Public Health

HCA 701 - U.S. Health Care System: Programs and Policies

HED 720 - Program Planning and Grant Writing in Health Promotion

EAB 703 - Biostatistical Methods for the Health Sciences

#### **Health Care Admin & Policy Courses – Credits: 15**

HCA 703 - Management of Health Service Organizations and Systems

HCA 716 - Health Care Accounting and Finance

HCA 730 - Strategic Management of Health Services

HCA 719 - Operations and Quality Management of Health Services

HCA 720 - Information Systems in Health Services Management

#### **Internship – Credits: 3**

HCA 793 - Internship in Health Care Administration

An additional 3 credits of internship may be taken as an elective for a total of 6 credits of internship.

### **Elective Courses – Credits: 3-6**

Students completing a thesis must complete three credits of elective coursework, and students completing a project must complete six credits of elective coursework. Select from the following list:

Den 7151 – Healthcare Finance and Public Health (1 credit)

Den 7154 – Healthcare Delivery: Patient Record and HIPAA Regulations (1.5 credits)

Den 7160 – Research and Professional Development I (1 credit)

Den 7161 – Research and Professional Development II (1.5 credits)

Den 7162 – Biochemical Basis of Clinical Nutrition (3 credits)

Den 7253 – Research and Analysis Methodology (1.5 credits)

### **Culminating Experience – Credits: 3-6**

Complete one of the following:

HCA 779 - Health Care Administration Capstone Course (3 credits)

HCA 799 - Thesis Research (6 credits)

### **Degree Requirements**

1. Completion of a minimum of 45 credit hours with a minimum GPA of 3.00.
2. Students enrolled in the DMD-Fast Track MPH program must remain in good academic/ethical standing in both the individual DMD and MPH programs or may be subject to dismissal.
3. Students in the DMD-Fast Track MPH program are subject to the same rules and regulations that apply to all students at the School of Dental Medicine and the School of Community Health Sciences.
4. Upon date of entry into the MPH program, students will be given a maximum time frame of five years in which they must satisfy the degree requirements for the Masters in Public Health degree.
5. If the thesis option is chosen, in consultation with his/her advisor, a student will organize a thesis committee of at least three

departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

### **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Students must receive prior approval from their committee before registering for any capstone experience.
3. Successfully pass the capstone course or successfully complete and defend a thesis by the posted deadline. The defense must be advertised and is open to the public.
4. If a thesis is completed, the student must submit his/her approved, properly formatted document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 8 Requirements: Dental Fast Track - Biostatistics and Epidemiology**

Total Required Credits: 45

#### **Course Requirements**

#### **Required Courses – Credits: 18**

EOH 710 /HED 710 - Fundamentals of Public Health

EOH 740 - Fundamentals of Environmental Health

EAB 705 - Epidemiology and Public Health

HCA 701 - U.S. Health Care System: Programs and Policies

HED 720 - Program Planning and Grant Writing in Health Promotion

EAB 703 - Biostatistical Methods for the Health Sciences

#### **Biostatistics and Epidemiology Courses – Credits: 12**

EAB 700 - Research Methods for Public Health  
EAB 715 - Chronic Disease Epidemiology  
EAB 725 - Epidemiology of Infectious Diseases  
EAB 763 - Linear Statistical Models

### **Internship – Credits: 3**

EAB 793 - Internship in Epidemiology and Biostatistics

An additional 3 credits of internship may be taken as an elective for a total of 6 credits of internship.

### **Elective Courses – Credits: 6-9**

Students completing a thesis must complete six credits of elective coursework, and students completing a project must complete nine credits of elective coursework. Select from the following list:

Den 7151 – Healthcare Finance and Public Health (1 credit)

Den 7154 – Healthcare Delivery: Patient Record and HIPAA Regulations (1.5 credits)

Den 7160 – Research and Professional Development I (1 credit)

Den 7161 – Research and Professional Development II (1.5 credits)

Den 7162 – Biochemical Basis of Clinical Nutrition (3 credits)

Den 7253 – Research and Analysis Methodology (1.5 credits)

### **Culminating Experience – Credits: 3-6**

Complete one of the following:

EAB 794 - Professional Paper in Epidemiology and Biostatistics (3 credits)

EAB 798 - Thesis Research in Epidemiology and Biostatistics (6 credits)

### **Degree Requirements**

1. Completion of a minimum of 45 credit hours with a minimum GPA of 3.00.
2. Students enrolled in the DMD-Fast Track MPH program must remain in good academic/ethical standing in both the individual DMD and MPH programs or may be subject to dismissal.

3. Students in the DMD-Fast Track MPH program are subject to the same rules and regulations that apply to all students at the School of Dental Medicine and the School of Community Health Sciences.
4. Upon date of entry into the MPH program, students will be given a maximum time frame of five years in which they must satisfy the degree requirements for the Masters in Public Health degree.
5. In consultation with his/her advisor, a student will organize a committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

### **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Students must receive prior approval from their committee before registering for any capstone experience.
3. Successfully complete the professional paper or successfully complete and defend a thesis by the posted deadline. The defense must be advertised and is open to the public.
4. If a thesis is completed, the student must submit his/her approved, properly formatted document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 9 Requirements: MD Fast Track - Social and Behavioral Health**

Total Credits Required: 30

### **Course Requirements**

### **Required Courses – Credits: 15**

Choose five classes from the following courses:

EOH 710 /HED 710 - Fundamentals of Public Health  
EOH 740 - Fundamentals of Environmental Health  
EAB 705 - Epidemiology and Public Health  
HCA 701 - U.S. Health Care System: Programs and Policies

HED 720 - Program Planning and Grant Writing in Health Promotion

EAB 703 - Biostatistical Methods for the Health Sciences

**Social and Behavioral Health Courses – Credits: 6**

HED 705 - Theoretical Foundations in Health Promotion

and one of the following courses:

EOH 705 - Social Epidemiology

EOH 760 - Racial and Ethnic Disparities in Health

**Social Behavioral Health Elective – Credits: 3**

Advisor approved Elective in Social Behavioral Health.

**Methods Courses – Credits: 3**

Complete one of the following courses:

EAB 700 - Research Methods for Public Health

EOH 715 - Qualitative & Field Methods for Public Health

EOH XXX - Mixed Methods

**Degree Requirements**

1. Medical Professional Fast Track students will complete 30 hours of coursework and sit for the national CPH exam.
2. Students enrolled in the DMD-Fast Track MPH program must remain in good academic/ethical standing in the MPH programs or may be subject to dismissal.
3. Students in the MD Fast Track MPH program are subject to the same rules and regulations that apply to all students at the School of Community Health Sciences.
4. Upon date of entry into the MPH program, students will be given a maximum time frame of five years in which they must satisfy the degree requirements for the Masters in Public Health degree.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must sit for the CPH exam.

**Subplan 10 Requirements: MD Fast Track - Epidemiology and Biostatistics**

Total Credits Required: 30

Course Requirements

**Required Courses – Credits: 15**

Choose five classes from the following courses:

EOH 710 /HED 710 - Fundamentals of Public Health

EOH 740 - Fundamentals of Environmental Health

EAB 705 - Epidemiology and Public Health

HCA 701 - U.S. Health Care System: Programs and Policies

HED 720 - Program Planning and Grant Writing in Health Promotion

EAB 703 - Biostatistical Methods for the Health Sciences

**Epidemiology and Biostatistics – Credits: 6**

EAB 715 - Chronic Disease Epidemiology

EOH 747 - Transmission of Infectious Disease

**Epidemiology Elective – Credits: 3**

Advisor approved Elective in Epidemiology.

**Methods Courses – Credits: 3**

Complete one of the following courses:

EAB 700 - Research Methods for Public Health

EOH 715 - Qualitative & Field Methods for Public Health

EOH XXX - Mixed Methods

**Degree Requirements**

1. Medical Professional Fast Track students will complete 30 hours of coursework and sit for the national CPH exam.
2. Students enrolled in the DMD-Fast Track MPH program must remain in good

academic/ethical standing in the MPH programs or may be subject to dismissal.

3. Students in the MD Fast Track MPH program are subject to the same rules and regulations that apply to all students at the School of Community Health Sciences.
4. Upon date of entry into the MPH program, students will be given a maximum time frame of five years in which they must satisfy the degree requirements for the Masters in Public Health degree.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must sit for the CPH exam.

#### **Subplan 11 Requirements: MD Fast Track - Environmental and Occupational Health**

Total Credits Required: 30

#### Course Requirements

#### **Required Courses – Credits: 15**

Choose five classes from the following courses:

EOH 710 /HED 710 - Fundamentals of Public Health

EOH 740 - Fundamentals of Environmental Health

EAB 705 - Epidemiology and Public Health

HCA 701 - U.S. Health Care System: Programs and Policies

HED 720 - Program Planning and Grant Writing in Health Promotion

EAB 703 - Biostatistical Methods for the Health Sciences

#### **Environmental and Occupational Health Courses – Credits: 6**

EOH 601 - Advanced Environmental Toxicology and one of the following courses:

EOH 717 - Food Safety and Public Health

EOH 747 - Transmission of Infectious Disease

#### **Environmental Health Elective – Credits: 3**

Advisor approved Elective in Environmental Health.

#### **Methods Courses – Credits: 3**

Complete one of the following courses:

EAB 700 - Research Methods for Public Health

EOH 715 - Qualitative & Field Methods for Public Health

EOH XXX - Mixed Methods

#### Degree Requirements

1. Medical Professional Fast Track students will complete 30 hours of coursework and sit for the national CPH exam.
2. Students enrolled in the DMD-Fast Track MPH program must remain in good academic/ethical standing in the MPH programs or may be subject to dismissal.
3. Students in the MD Fast Track MPH program are subject to the same rules and regulations that apply to all students at the School of Community Health Sciences.
4. Upon date of entry into the MPH program, students will be given a maximum time frame of five years in which they must satisfy the degree requirements for the Masters in Public Health degree.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must sit for the CPH exam.

#### **Subplan 12 Requirements: MD Fast Track - Healthcare Administration and Policy**

Total Credits Required: 30

#### Course Requirements

#### **Required Courses – Credits: 15**

Choose five classes from the following courses:

EOH 710 /HED 710 - Fundamentals of Public Health

EOH 740 - Fundamentals of Environmental Health

EAB 705 - Epidemiology and Public Health

HCA 701 - U.S. Health Care System: Programs and Policies

HED 720 - Program Planning and Grant Writing in Health Promotion

EAB 703 - Biostatistical Methods for the Health Sciences

**Healthcare Administration and Policy Courses – Credits: 6**

HCA 718 - Health Care Economics

HCA 703 - Management of Health Service Organizations and Systems

**Healthcare Administration and Policy Elective – Credits: 3**

Advisor approved Elective in Healthcare Administration and Policy.

**Methods Courses – Credits: 3**

Complete one of the following courses:

EAB 700 - Research Methods for Public Health

EOH 715 - Qualitative & Field Methods for Public Health

EOH XXX - Mixed Methods

**Degree Requirements**

1. Medical Professional Fast Track students will complete 30 hours of coursework and sit for the national CPH exam.
2. Students enrolled in the DMD-Fast Track MPH program must remain in good academic/ethical standing in the MPH programs or may be subject to dismissal.
3. Students in the MD Fast Track MPH program are subject to the same rules and regulations that apply to all students at the School of Community Health Sciences.
4. Upon date of entry into the MPH program, students will be given a maximum time frame of five years in which they must satisfy the degree requirements for the Masters in Public Health degree.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for

graduation up to two semesters prior to completing his/her degree requirements.

2. The student must sit for the CPH exam.

**Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## Doctor of Philosophy - Public Health

### Plan Description

The Schools of Community Health Sciences (SCHS) at UNLV and UNR are pleased to offer a collaborative doctoral program (Ph.D.) in Public Health. The collaboration between the two schools represents a unique, statewide approach to public health training and research, drawing on complementary expertise and opportunities at both universities to create a high-quality academic program that maximizes resources and flexibility.

Students with an MPH from the UNLV SCHS must complete 48 credits beyond the Master of Public Health (MPH). Students with an MPH from another institution must complete 48 credits beyond the master's plus an additional 6 credits of deficiency. Students with a master's degree in a related field must complete 48 credits beyond the master's degree plus an additional 15 credits of deficiency.

### Educational Objectives

The Ph.D. – Public Health is designed to prepare students for careers in which advanced analytical and conceptual capabilities are required, such as university teaching, research, consulting, policy development or other high-level positions.

The curriculum was developed jointly by faculty from the Schools of Community Health Sciences at the University of Nevada, Reno, and the University of Nevada, Las Vegas, with input from representatives of academia and the public health community. The curriculum provides a comprehensive and interdisciplinary examination of topics and experiences necessary to produce graduates who are ready to secure employment in the public health arena.

Students in the program are admitted to either UNLV or UNR and follow the course requirements from their home institution. Courses may be taken at either institution. A Chair from the admitting institution supervises and the dissertation but the doctoral committee may include members from either or both institutions.

This program is competitive and space is limited. More students will apply than will be admitted. The most competitive students will have a strong academic record and a clear plan for their proposed research.

Completion of the Ph.D. demonstrates that the graduate has the advanced research skills and competencies necessary to succeed in high level research careers.

Upon admission each student will be assigned an academic (not dissertation) advisor who will help the student begin planning a program of study. Students are expected to identify a dissertation committee before the end of their second semester in the program.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Admission into the Public Health PhD Program at UNLV will require applicants to meet the standard criteria of the UNLV Graduate College, applicable to all graduate students, both domestic and international, and contingent upon the qualifications of the applicant and the availability of openings for new students. Doctoral students are admitted as a cohort, once a year, for the fall semester. Applicants must have submitted all required materials by the April 1 deadline for admission in the following fall semester. Students will be admitted directly into the doctoral program and all admissions will require the final approval of the Dean of the UNLV Graduate College. In addition to the generic requirements of the UNLV Graduate College applicants will be expected to meet the following criteria:

1. Earned a bachelor's and Master's of Public Health (MPH) or a master's degree in an appropriate field from an accredited university. Applicants educated outside of the United States will need to demonstrate



proof of equivalent education and advanced degrees.

2. A minimum grade point average of 3.0 (4.0=A) earned in a masters' program of study. The most competitive students will have a master's level GPA of 3.5 or higher.
3. Applicants must present competitive Graduate Record Exam (GRE) scores on verbal, quantitative and analytical measures. GRE scores will be assessed relative to other applicants in the pool, as well as relative to other graduate programs at UNLV. The exam must have been taken with the institutions' graduate school/college requirements. The most competitive students will have a combined verbal/quantitative GRE score of 1200 (old test) /300 (new test) or higher. The GRE is required for all applicants.
4. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.
5. Letters of Recommendation- Three (3) letters of recommendation are required from faculty and other individuals who can evaluate the applicant's motivation, academic capability, scholarship potential, and personal goals for doctoral study.
6. Written Self-Presentation- Applicants must submit for review a written statement of personal career, educational and scholarship goals including identification of research interests. The most competitive students will clearly identify their plan for dissertation research and its contribution to the field of public health.
7. Interview-Applicants may be asked to participate in an interview with member(s) of the Admissions Committee, either in person or by telephone. Applicants may also be asked to submit a writing sample.
8. Applicants must identify an Area of Emphasis (sub plan) at the time of application.
9. All students are required to take or have taken at the Master's level the following 27 credit hours or their approved equivalent:

*UNLV Courses*

EOH 740 - Fundamentals of Environmental Health  
EAB 703 - Biostatistical Methods for the Health Sciences  
HED 705 - Theoretical Foundations in Health Promotion  
EOH 747 - Transmission of Infectious Disease  
EAB 705 - Epidemiology and Public Health  
HCA 701 - U.S. Health Care System: Programs and Policies  
EOH 704 - Research Integrity & Ethics

*UNR Courses*

PUBH 725 – Health and the Environment  
PUBH 780 – Biostatistics in Public Health  
PUBH 701 – Social and Behavioral Health  
PUBH 620 – Biological Basis of Health & Disease  
PUBH 712 – Epidemiology in Public Health  
PUBH 755 – Policy and Health Administration  
PUBH 785 – Public Health Ethics

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

**Plan Requirements**

*See Subplan Requirements below.*

**Subplan 1 Requirements: Environmental and Occupational Health Track**

Total Credits Required: 48

Course Requirements

**Required Courses – Credits: 15**

Complete five courses from the following lists from either UNLV or UNR:

*UNLV Courses:*

EOH 709 - Scientific/Technical Writing for the Health and Life Sciences  
EOH 717 - Food Safety and Public Health  
EOH 737 – Public Health Microbiology  
EOH 757 - Parasitology and Public Health

EOH 767 - Airborne Pathogens and Human Health  
EOH 765 - Seminar in Environmental Justice and Public Health  
EOH 769 - Advanced Pollution Ecology  
EOH 777 - Emerging Infectious Disease  
HPS 680 - Industrial Hygiene  
EAB 715 - Chronic Disease Epidemiology

ENV 711 - Risk Assessment and Risk Management  
Or  
ENV 712 - Environmental Risk Decision Making

*UNR Courses:*

ATMS 612 – Introduction to Air Pollution  
CEE 617 – Intro to Env Quality and Analysis  
CEE 653 – Environmental Microbiology  
CEE 658 – Fundamentals of Env Chemistry  
HE 695 – Toxic Communities and Public Health  
NRES 612 – Environmental Law  
NRES 633 – Env Chemicals: Exp, Trans & Fate  
NRES 672 – Environmental Health and Safety  
NUTR 723 – Food and Nutritional Toxicology  
PCS 603D – Global Environmental Policy  
PUBH 695 – Biochemical and Molec Mech of Toxicity  
PUBH 730 – Biomarkers of Human Disease  
PUBH 735 – Intro to Exposure Assessment and Control  
PUBH 753 – Health Informatics  
PUBH 776 – Essentials of Occupational Health  
PUBH 777 – Fundamental of Industrial Hygiene  
PUBH 781 – Env-Occup Health Risk Assessment

**Methods Course – Credits: 3**

EAB 700 - Research Methods for Public Health

**Research Courses – Credits: 6**

Complete two of the following courses:

EAB 733 - Survey Sampling for the Health Sciences  
EAB 753 - Nonparametric Statistics for Public Health  
EAB 763 - Linear Statistical Models  
EAB 773 - Survival Analysis for Public Health  
EAB 783 - Multivariate Methods for the Health Sciences

**Elective Courses – Credits: 3**

Complete 3 credits of advisor-approved coursework.

**Dissertation – Credits: 21**

Complete either 3 credits of prospectus and 18 credits of dissertation, or 21 credits of dissertation.

EOH 797 - Dissertation Prospectus  
EOH 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 2 Requirements: Social Behavioral Health Track**

Total Credits Required: 48

Course Requirements

**Required Courses – Credits: 6**

EOH 705 - Social Epidemiology  
EOH 760 - Racial and Ethnic Disparities in Health

**Elective Courses – Credits: 12**

Complete 12 credits of additional advisor-approved elective courses.

**Methods Courses – Credits: 3**

Complete one of the following courses:

EAB 700 - Research Methods for Public Health  
EOH 715 - Qualitative & Field Methods for Public Health

**Research Courses – Credits 6**

Complete two of the following courses:

EAB 733 - Survey Sampling for the Health Sciences  
EAB 743 - Experimental Design for the Health Sciences  
EAB 753 - Nonparametric Statistics for Public Health  
EAB 763 - Linear Statistical Models  
EAB 773 - Survival Analysis for Public Health

EAB 783 - Multivariate Methods for the Health Sciences

**Dissertation – Credits: 21**

Complete either 3 credits of prospectus and 18 credits of dissertation, or 21 credits of dissertation.

EOH 797 - Dissertation Prospectus

EOH 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 3 Requirements: Epidemiology and Biostatistics Track**

Total Credits Required: 48

Course Requirements

**Required Courses – Credits: 6**

EAB 756 - Epidemiology and Research

EAB 715 - Chronic Disease Epidemiology

**Epidemiology Courses – Credits 6**

Complete two of the following courses:

EAB 755 - Cancer Epidemiology

EAB 716 - The Epidemiology of Obesity

EOH 705 - Social Epidemiology

**Methods Course – Credits: 3**

Complete one of the following courses:

EAB 700 - Research Methods for Public Health

EOH 715 - Qualitative & Field Methods for Public Health

**Research Courses – Credits: 6**

Complete two of the following courses:

EAB 733 - Survey Sampling for the Health Sciences

EAB 743 - Experimental Design for the Health

Sciences

EAB 753 - Nonparametric Statistics for Public Health

EAB 763 - Linear Statistical Models

EAB 773 - Survival Analysis for Public Health

EAB 783 - Multivariate Methods for the Health Sciences

**Elective Courses – Credits: 6**

Complete 6 credits of advisor-approved coursework.

**Dissertation – Credits: 21**

Complete either 3 credits of prospectus and 18 credits of dissertation, or 21 credits of dissertation.

EOH 797 - Dissertation Prospectus

EOH 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 4 Requirements: Health Service Management and Policy Track**

Total Credits Required: 48

Course Requirements

**Required Courses – Credits: 12**

Complete four of the following courses:

HCA 703 - Management of Health Service Organizations and Systems

HCA 652 - Health Politics and Policy

HCA 718 - Health Care Economics

HCA 716 - Health Care Accounting and Finance

HCA 730 - Strategic Management of Health Services

HCA 719 - Operations and Quality Management of Health Services

HCA 720 - Information Systems in Health Services Management

HCA 717 - Human Resources Management of Health Care Organizations

HCA 721 - Advanced Health Care Finance

### **Methods Courses – Credits: 6**

HCA 715 - Health Services Research Methods  
EOH 715 - Qualitative & Field Methods for Public Health

### **Research Courses – Credits: 6**

Complete two of the following courses:

EAB 733 - Survey Sampling for the Health Sciences  
EAB 753 - Nonparametric Statistics for Public Health  
EAB 763 - Linear Statistical Models  
EAB 773 - Survival Analysis for Public Health  
EAB 783 - Multivariate Methods for the Health Sciences  
ECO 772 - Econometrics II  
MBA 767 - Market Opportunity Analysis

### **Elective Courses – Credits: 3**

Complete 3 credits of advisor-approved coursework.

### **Dissertation – Credits: 21**

Complete either 3 credits of prospectus and 18 credits of dissertation, or 21 credits of dissertation.

EOH 797 - Dissertation Prospectus  
EOH 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Degree Requirements**

1. A grade point average of at least a 3.0 must be maintained in all courses required for the degree; no grade less than a B in any course is acceptable for curricular completion of the program.
2. All students are required to complete a written Comprehensive Examination upon completion of the core courses of the program. The examination is designed to assess the student's ability to synthesize knowledge, as demonstrated by the selection

and integration of information from several doctoral courses and is evaluated by written discussion in response to examination questions. The Comprehensive Examination may only be repeated once and must be repeated within one semester of the initial attempt. Students unable to pass the Comprehensive Examination after a second attempt will be separated from the program.

3. After successful completion of the Comprehensive Exam the student must establish a Dissertation committee. The committee will include at minimum, a Chairperson with expertise in the student's Area of Emphasis; two additional committee members from the School of Community Health Sciences; and, a Graduate College Representative. Students may also elect to add approved, external committee member with expertise in the student's selected area of emphasis.
4. Upon completion of all required course work other than dissertation, each student must take oral Qualifying Examination that will focus on those areas of knowledge most relevant to the student's dissertation topic. Qualifying examinations may only be repeated once and must be repeated within one semester of the initial attempt. If a student fails a second attempt, the student will be separated from the program.
5. Upon successful completion of the Qualifying examination, the student will present a dissertation prospectus to his/her committee and an oral presentation to peers and faculty. The prospectus is a written and oral presentation of the student's dissertation research plan. The written prospectus should be the equivalent of the first three chapters of the dissertation. The oral presentation is a public presentation of the research plan. The prospectus becomes the agreement for the student's dissertation research. Upon approval of the prospectus, the student advances to candidacy, can register for dissertation credits, and begin their independent research.
6. Upon completion of the dissertation, the student must pass a final oral examination

that involves the public presentation and successful defense of their dissertation study. All advisory committee members must be present for the final defense and may question the student following presentation of the study. The defense will be scheduled and conducted in accordance with the Graduate College/ School's policies for dissertation completion. It is the student's responsibility to file all required forms and written materials with the Graduate College in a timely manner.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## **School of Community Health Sciences Courses**

EAB 700 - Research Methods for Public Health  
Credits 3

Provides a foundation in research methodology for public health professionals. Topics include basic sampling and experimental designs, quantitative and qualitative methods in research, mathematical and economic models in research, and multidisciplinary approaches to designing research programs.

**Prerequisites** EAB 703 or consent of instructor.

EAB 703 - Biostatistical Methods for the Health Sciences  
Credits 3

Designed to provide a foundation in biostatistics for graduate students in the health sciences. Topics include probability, distributions, estimation, hypothesis testing, ANOVA, simple and multiple regression, vital statistics, and nonparametric methods.

**Prerequisites** Undergraduate mathematics through calculus, comparable graduate coursework, or consent of instructor.

EAB 704 - Research Integrity & Ethics  
Credits 3

Designed to provide students with an understanding of how to conduct responsible research. Covers the concepts of scientific ethics and integrity broadly in order to provide a foundation for future research professionals. Topics include ethical principles, peer review, mentoring, IRB, collaborative research, and scientific record keeping.

EAB 705 - Epidemiology and Public Health  
Credits 3

Explores principles related to the distribution and causality of disease. Focuses on etiology, prevention and control of communicable and chronic human disease. Participants trained in basic epidemiological methodology, featuring case-series, case-control, experimental and cohort study designs.

EAB 709 - Scientific/Technical Writing for the Health and Life Sciences  
Credits 3

Technical writing skills are critical to success in publication of scientific journal articles, approval of research grant submissions, and acceptance of thesis/dissertation requirements. In this course students will study techniques and develop skills in technical writing useful to professionals in health care and life sciences.

**EAB 710 - Fundamentals of Public Health**  
Credits 3

Introduces students to public health concepts and practice. Provides broad overview of the field of public health and focused look at core areas of health promotion and education, environmental health, epidemiology and bio statistics, and health care administration in the public health arena.

**EAB 715 - Chronic Disease Epidemiology**  
Credits 3

Surveys the major chronic diseases with an emphasis on recent epidemiological research and findings, demographic and populations aspects of chronic illness, causation and risk factors, prevention, and control.

**Prerequisites** HED 725 or consent of instructor.

**EAB 716 - The Epidemiology of Obesity**  
Credits 3

Describes the epidemiology and prevention of obesity and associated complications. Discusses methodological issues associated with evaluating epidemiologic studies that target obesity. Designed to cover the global epidemic of obesity, the environmental and behavioral risk factors, as well as interventions to reduce and prevent obesity.

**EAB 720 - Grant Writing for Epidemiology and Public Health Research**  
Credits 3

Covers the process of designing competitive research grant proposals from conceptualization to grant management.

**Prerequisites** Core epidemiology class, research methods.

**EAB 725 - Epidemiology of Infectious Diseases**  
Credits 3

Introduces the basic concepts in infectious disease epidemiology. Students develop a basic conceptual understanding and analytic skills in the investigation

and control of infectious diseases in human populations. Students describe the most common infectious diseases, including their transmission, pathogenesis, treatment, prevention, and control.  
**Prerequisites:** Admission to the School of Community Health Sciences or consent of instructor.

**EAB 730 - Introduction to Statistical Computing with SAS**  
Credits 3

PC-based statistical computing applications with SAS 9.3 for public health. Develop basic skills in the use of a statistical package through classroom demonstrations and independent lab assignments that will complement the material covered in EAB 703 or equivalent. Emphasize data definition, verification, descriptive and inferential statistics and graphical presentation.

**Prerequisites** EAB 703.

**EAB 733 - Survey Sampling for the Health Sciences**  
Credits 3

Introduces the basics of sampling theory and application in the health sciences. Several popular designs will be covered in depth. Other topics include sources of error in sampling, design of surveys, and population size determination.

**Prerequisites** EAB 703 or consent of instructor.

**EAB 735 - Outbreak Investigation**  
Credits 3

Students will work through simulated outbreak situations, culminating in a lengthy simulation of an outbreak. Students will be responsible for all aspects of the investigation including report writing. Through partnership with community health agencies, students will have the opportunity to assist in actual outbreak investigations occurring during the semester.

**Prerequisites** HED 725/EAB 705 or equivalent

**EAB 743 - Experimental Design for the Health Sciences**  
Credits 3

Provides thorough coverage of experimental design for student in the health sciences. Topics include single factor designs, factorial experiments, within-factor designs, nested designs, analysis of trend, and general linear models.

**Prerequisites** EAB 703 or consent of instructor.

EAB 745 - Epidemiological Surveillance

Credits 3

Students will explore systems currently in place, both in the United States and internationally, and will learn the methodology used to analyze surveillance data. Students will learn about effective surveillance systems through lecture and case studies of existing surveillance systems.

EAB 753 - Nonparametric Statistics for Public Health

Credits 3

Designed to provide a strong foundation in nonparametric statistical methods commonly used in public health. Topics explored in the course include ranked data, transformation of ranks, methods for paired and independent samples, nonparametric regression and correlation, categorical data analysis, and robust estimation.

**Prerequisites** Graduate level biostatistics.

EAB 755 - Cancer Epidemiology

Credits 3

This course is an introduction to cancer epidemiology. The objective is to make the student use, learn and consolidate basic analytic skills in developing research projects in cancer. It includes among others the following topics: trends, biology of cancer, issues in prostate, breast, colorectal, lung, and cervical cancer, cancer screening, GIS and spatial analysis in cancer, survival, and migrant studies.

EAB 756 - Epidemiology and Research

Credits 3

Topics in Epidemiology II include analytic reasoning in public health and in disease surveillance, descriptive epidemiology and causal inference with a special emphasis on study design. This course will largely make use of scientific articles to provide students with a solid basis to critically analyze and develop medical/public health research. May be repeated to a maximum of three credits.

**Prerequisites** EAB 703 and EAB 705

EAB 763 - Linear Statistical Models

Credits 3

Explores the foundations and applications of linear statistical models. Applications include simple, multivariate, and logistic regression; time series analysis; single-/multiple-factor ANOVA; random and mixed effects models; and ANCOVA. Several

experimental designs will also be explored.

**Prerequisites** Graduate level biostatistics.

EAB 773 - Survival Analysis for Public Health

Credits 3

Explores the broad area of survival analysis for analyzing data derived from laboratory, clinical, and epidemiological studies. Methods explored in this course include survival functions, data censoring, hazard models, regression models, and parametric/nonparametric methods for comparing survival models.

**Prerequisites** EAB 753 and EAB 763.

EAB 783 - Multivariate Methods for the Health Sciences

Credits 3

Provides an in- depth coverage of common multivariate methods. Topics include multivariate correlation and regression, multivariate ANOVA, logistic regression, factor analysis, time series analysis, and principle component analysis. Emphasis placed on application of techniques useful for students in the health sciences.

**Prerequisites** EAB 773 or consent of instructor.

EAB 790 - Current Topics in Environmental Health and Epidemiology

Credits 1-3

This is an advanced seminar course directed by members of the Department of Environmental and Occupational Health and the Epidemiology and Biostatistics Program. Seminars will be facilitated by faculty members based on their particular areas of research interest and expertise.

EAB 793 - Internship in Epidemiology and Biostatistics

Credits 1 – 3

Capstone experiences for the MPH degree and is intended to provide students with applied work experience in a local agency, organization, center or institute.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Admission to the School of Community Health Sciences or consent of instructor.

EAB 794 - Professional Paper in Epidemiology and Biostatistics

Credits 3

Provides the opportunity for a graduate degree candidate to be involved in an in-depth project. A formal paper and presentation describing the project culminate this experience.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Admission to the School of Community Health Sciences or consent of instructor.

EAB 795 - Special Topics in Epidemiology and Biostatistics

Credits 1 – 3

Selected topic of current interest in epidemiology and biostatistics.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Admission to the School of Community Health Sciences or consent of instructor.

EAB 796 - Independent Study in Epidemiology and Biostatistics

Credits 1 – 3

Independent study of a selected topic in Epidemiology or Biostatistics.

**Prerequisites** Admission to the School of Community Health Sciences or consent of instructor.

EAB 798 - Thesis Research in Epidemiology and Biostatistics

Credits 1 – 6

**Notes** May be repeated, but a maximum of six credits will apply towards the student's degree program.

EOH 601 - Advanced Environmental Toxicology

Credits 3

The following course has been approved for graduate credit. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

EOH 660 - Health Ecology and Sustainability

Credits 3

This course will examine ways human populations are using land, energy, food and water resources and the related impacts on global climates, ecosystem degradation and biodiversity. This course will provide students with an understanding of how human consumption and standards of living are exceeding the carrying capacity of the planet.

**Same as** Crosslisted with PBH 460.

**Grading** Letter grade.

EOH 793 - Internship in Environmental Health

Credits 1 – 3

The environmental internships is one of the capstone experiences for the MPH degree and is intended to provide students with applied work experience in a local agency, organization, center or institute.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Admission to the School of Community Health Sciences or consent of instructor.

HCA 652 - Health Politics and Policy

Credits 3

Role of politics and policy-making as an external environmental impact on health care. Describes the political process in health care policy-making at all government levels. Interest group politics introduced in the context of the roles that these groups play in health care policy development and how these forces and health care organizations react to shape health care policy. Prerequisites: HIST 100, PSC 100, or PSC 101. 3 credits.

HCA 680 - Organization and Management of Long-Term Care Services

Credits 3

Examination of health and social services for the elderly with emphasis on structure and function of the long-term care industry. Focuses on management of nursing home services. Includes analysis of reimbursement, regulatory, and other social, economic, political and legal factors affecting health and social services for the elderly.

**Notes** This course is crosslisted with HCA 480. Credit at the 600-level requires additional work.

HED 629 - Education for Sexuality

Credits 3

Physical, mental-emotional, and social aspects of sexuality including sexual communication, relationships, gender, decision making and sexual pleasure and function. Structured to prepare individuals to conduct meaningful learning experiences in personal and family life sex education.

**Notes** This course is crosslisted with PBH 429. Credit at the 600-level requires additional work.



## **Environmental & Occupational Health**

The mission of the Department of Environmental and Occupational Health is to advance the health of all people in the United States and around the world through research and training in environmental health. The department emphasizes the role of air, water, the home environment, and the workplace as critical determinants of health.

**Michelle Chino, Ph.D., Chair**  
**Sheniz Mooney, Graduate Coordinator**

## **Environmental and Occupational Health Faculty**

### **Chair**

**Chino, Michelle** - *Full Graduate Faculty*  
Associate Professor of Environmental and Occupational Health, B.S., M.S., PhD. University of New Mexico. *Rebel since 2000.*

### **Graduate Faculty**

**Bungum, Timothy**- *Full Graduate Faculty*  
Associate Professor of Biostatistics and Epidemiology; B.A. Luther College; M.S., DPH University of South Carolina. *Rebel since 2001.*

**Buttner, Mark P.**- *Full Graduate Faculty*  
Associate Professor of Environmental and Occupational Health; B.S. University of Wisconsin; M.S. University of Nevada Las Vegas, PhD University of Nevada Reno. *Rebel since 1989.*

**Cross, Chad** - *Associate Graduate Faculty*  
Associate Professor of Biostatistics and Epidemiology; B.S., Purdue University; M.S., PhD. Old Dominion University. *Rebel since 2005.*

**Cruz, Patricia** - *Full Graduate Faculty*  
Associate Professor of Environmental and Occupational Health, B.S. University of Puerto Rico, M.S. University of Central Florida, PhD. University of Nevada Reno. *Rebel since 1995.*

**Dodge Francis, Carolee** - *Full Graduate Faculty*  
Assistant Professor of Environmental and Occupational Health; B.S., M.A., Ed.D., University of St. Thomas. *Rebel since 2007.*

**Gerstenberger, Shawn** - *Full Graduate Faculty*  
Professor and Chair of Environmental and Occupational Health; B.S. University of Wisconsin-Platteville; M.S., PhD. University of Illinois. *Rebel since 1997.*

**Moonie, Sheniz** - *Full Graduate Faculty*  
Assistant Professor of Biostatistics and Epidemiology, BS University of California San Diego; MS California Polytechnic University,

Pomona; PhD Saint Louis University. *Rebel since 2006.*

**Stetzenbach, Linda** - *Full Graduate Faculty*  
Professor Emeritus of Environmental and Occupational Health; B.S., M.S., PhD. University of Arizona. *Rebel since 2005.*

**Thompson-Robinson, Melva** - *Full Graduate Faculty*  
Associate Professor of Environmental and Occupational Health, B.S. University of Michigan, M.S., Ohio University, D.P.H. University of South Carolina. *Rebel since 2004.*

**Wong, David** - *Full Graduate Faculty*  
Associate Research Professor. B.Sc., M.Sc. Ocean University of Qingdao, PhD. City University of Hong Kong. *Rebel since 2008.*

## **Environmental & Occupational Health**

EOH 645 - Food access and health  
Credits 3

This course will provide students with the knowledge and skills to understand and navigate the built environment and industrial food complex with regard to the availability of healthy food and clean water. Topics will include the concept of food deserts, access to safe and healthy foods, obesity, malnutrition, and critical public health problems associated with food, water consumption, and sustainable solutions.

**Same as** PBH 445

**Notes** Course may not be repeated for credit.

**Grading** Letter Grade

EOH 655 - Active Transport, Physical Activity and Health  
Credits 3

This course will examine the public health benefits of active transport and physical activity and concepts relevant to the built environment that facilitate or hinder participation in active transport and physical activity. Class topics will include: land use and travel behavior; the built environment and public health; transportation demand management; bicycle and pedestrian planning; design of bicycle and pedestrian facilities; retrofitting existing urban areas; safety issues for pedestrians and bicyclists; the transportation needs of special populations (elderly, children, disabled and immigrants); and innovative solutions.

**Same as** PBH 455

EOH 702 - Community Based Participatory Research Methods  
Credits 3

Teaches the philosophy and methods of community based participatory research. Focus on traditional research methods and their application to community health research as well as strategies for developing research partnerships, community consent, and essential competencies for research with diverse communities.

EOH 704 - Research Integrity & Ethics

Credits 3

### RESEARCH INTEGRITY & ETHICS

EOH 705 - Social Epidemiology

Credits 3

Focuses on the social determinants of health and the health implications of social phenomena such as class, discrimination, and work. Students will examine life course hypotheses and the impact of early exposure to disease in later life as well as intervention strategies that incorporate social change elements. Prerequisite: Core epidemiology class.

EOH 709 - Scientific/Technical Writing for the Health and Life Sciences

Credits 3

Technical writing skills are critical to success in publication of scientific journal articles, approval of research grant submissions, and acceptance of thesis/dissertation requirements. In this course students will study techniques and develop skills in technical writing useful to professionals in health care and life sciences.

EOH 710 - Fundamentals of Public Health

Credits 3

Introduces students to public health concepts and practice. Provides broad overview of the field of public health and focused look at core areas of health promotion and education, environmental health, epidemiology and bio statistics, and health care administration in the public health arena.

EOH 711 - Diseases that Changed the World

Credits 3

Human disease has played a significant role in social and political changes worldwide. In this course students will study the impact of people and disease on historical events, and present written and oral discussions of selected topics including how these events impact public health.

EOH 713 - Public Health Law

Credits 3

Examines the history of public health law and the role, authority and limitations of government to enact and enforce such laws. Students will examine the development of public health laws and the

relationship between government entities in carrying out the laws.

EOH 715 - Qualitative & Field Methods for Public Health

Credits 3

This course will provide students with the content/skills needed to conduct community-based participatory field research. This course will explore several topics related to qualitative research: theoretical aspects of qualitative research, negotiating community, designing the study, ethnographic observations, triangulating data, and writing a field study report.

EOH 717 - Food Safety and Public Health

Credits 3

Foodborne illness has a significant impact on public health. In this course students will study microbiological and chemical aspects of food safety including factors that affect growth or organisms in food and production of toxins that can result in foodborne illness.

EOH 732 - Children, Development, Health, and the Environment

Credits 3

Focuses on health issues specific to children age 0-18, such as abuse and neglect, insurance, nutrition, immunization, mental health, substance abuse, sexuality and chronic disease. Students will examine the unique status of children in the public health system as well as systemic approaches to improving services and policies.

**Prerequisites** MPH core classes.

EOH 735 - Outbreak Investigation

Credits 3

Students will work through simulated outbreak situations, culminating in a lengthy simulation of an outbreak. Students will be responsible for all aspects of the investigation including report writing. Through partnership with community health agencies, students will have the opportunity to assist in actual outbreak investigations occurring during the semester.

EOH 740 - Fundamentals of Environmental Health

Credits 3

This course will address chemical, physical and

biological factors in the environment and their relationship to the health of the human population.

EOH 745 - Epidemiology & Biostatistics  
Credits 3

Students will explore systems currently in place, both in the United States and internationally, and will learn methodology used to analyze surveillance data. Students will learn about the effective surveillance systems through lecture and case studies of existing surveillance systems.

**Same as** EAB 745

**Prerequisites** HED 725/EAB 705 or equivalent

EOH 747 - Transmission of Infectious Disease  
Credits 3

Exposure to disease causing microorganisms occurs via inhalation, ingestion, and dermal contact. Students will study transmission of selected microorganisms via the air, water, food, vectors, and person-to-person contact.

EOH 757 - Parasitology and Public Health  
Credits 3

Parasitic infections resulting from exposure to parasites that invade the intestine, blood, or tissues of humans can result in serious disease. This course will discuss a variety of human parasites, resulting disease, and treatment and control strategies to minimize exposure and health impacts.

EOH 760 - Racial and Ethnic Disparities in Health  
Credits 3

Explore the causes of health disparities and potential remedies for health-related inequities that associate with race, ethnicity, social class and culture. Students will develop skills necessary to recognize personal and institutionalized bias which interferes with clinical decision-making, health policy, and health system structural development.

EOH 765 - Seminar in Environmental Justice and Public Health  
Credits 3

Explores the impact of environmental hazards on community health and examine strategies for developing justice resources and effective policy change. Students will examine actual cases and their health and policy outcomes. Focus on community based strategies for research, advocacy, and

environmental change. Prerequisites: EOH and MPH core classes.

EOH 766 - Biological Invasions and Environmental Health  
Credits 3

This class covers topics with regard to the human introduction, impacts, and prevention of invasive species to environmental health, such as invasion theory, species distinction, ecosystem health, social and economic impacts, invasive species control and management.

EOH 767 - Airborne Pathogens and Human Health  
Credits 3

Airborne pathogens are microorganisms that can cause disease or adverse health effects when humans are exposed to them in indoor and outdoor environments. This course will describe the physical and environmental parameters that affect the dispersal, transport and survival of airborne pathogens and discuss the human health impacts of exposure.

EOH 769 - Advanced Pollution Ecology  
Credits 3

This course will address the major effects of pollution on aquatic organisms and ecosystems.

**Prerequisites** EOH 740 or permission of instructor.

EOH 775 - Injury Epidemiology  
Credits 3

This course will teach students about the epidemiology of intentional and unintentional injury. The course will include the basic concepts of injury prevention, injury surveillance, strategies for injury control, developing injury prevention programs, and designing injury research and evaluation.

**Prerequisites** Core Epidemiology and Research Methods.

EOH 777 - Emerging Infectious Disease  
Credits 3

Re-emerging and newly recognized/emerging infections diseases are having a significant on public health world-wide. This course will present a variety of new diseases resulting from exposure to emerging and re-emerging microbial pathogens and suggested treatment and control strategies to minimize exposure and health impacts.

EOH 790 - Doctoral Seminar

Credits 3

This is an advanced seminar course directed by members of the Department of Environmental and Occupational Health and the Epidemiology and Biostatistics Program. Seminars will be facilitated by faculty members based on their particular areas of research interest and expertise.

**Same as** EAB 790

**Notes** S/U grading only.

will apply towards the student's degree program.

**Grading** S/F grading only.

EOH 799 - Dissertation

Credits 3-6

Dissertation in Environmental and Occupational Health

**Notes** May be repeated to a maximum of 21 credits

**Prerequisites** PhD standing

EOH 794 - Professional Paper in Environmental Health

Credits 3

This capstone experience provides the opportunity for a graduate degree candidate to be involved in an in-depth project either written or experimental in nature. A formal paper and presentation describing the project culminate this experience.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Admission to the School of Community Health Sciences or consent of instructor.

EOH 795 - Special Topics in Public Health

Credits 3

Selected topic of current interest not covered in any existing courses in environmental and occupational health.

**Notes** May be repeated to a maximum of three credits.

**Prerequisites** Admission to the School of Community Health Sciences or consent of instructor.

EOH 796 - Independent Study in Environmental Health

Credits 1 – 3

Independent study of a selected topic in Environmental and Occupational Health.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Admission to the School of Community Health Sciences or consent of instructor.

EOH 797 - Dissertation Prospectus

Credits 3

This course is designed to guide students in the development of their dissertation prospectus.

EOH 798 - Thesis Research

Credits 1 – 6

**Notes** May be repeated, but a maximum of six credits

## **Health Care Administration & Policy**

The Health Care Industry is one of the three largest industries in the United States based on revenues, total assets or number of employees. Opportunities for employment in health care organizations are abundant in the Las Vegas Valley, other parts of Nevada, as well as in other areas of the U.S.A.

Job opportunities occur in the following types of organizations:

- Hospitals
- Ambulatory care facilities
- Sub-acute care facilities
- Rehabilitation facilities
- Long-term care facilities
- Medical practices or physician organizations
- Insurance companies
- Public health agencies
- Managed care and Accountable Care Organizations
- Mental health programs
- Community health programs
- Consulting firms
- Government health care agencies
- Health and healthcare research facilities

Students in the Health Care Administration M.H.A. gain a broad view of the health care delivery system and develop an understanding of health and disease. They develop analytical skills through the curriculum including internships to prepare them for leadership positions in the organization, financing, delivery, and improvement of health care services.

**Chris Cochran, Ph.D., Chair**

**Jay Shen, Ph.D., Graduate Coordinator**

## Health Care Administration and Policy Faculty

### **Chair**

**Cochran, Christopher** - *Full Graduate Faculty*  
Professor of Health Care Administration; B.A. University of Texas, El Paso; M.P.A., Ph.D., University of South Carolina. *Rebel since 1997.*

### **Graduate Coordinator**

**Shen, Jay** - *Full Graduate Faculty*  
Professor of Health Care Administration and Policy; M.S., Harvard University, Ph.D., Virginia Commonwealth University. *Rebel since 2006.*

### **Graduate Faculty**

**Epane, Josue** - **Full Graduate Faculty**  
Assistant Professor of Health Care Administration; MBA, Ph.D., University of Alabama, Birmingham. *Rebel since 2013.*

**Liu, Darren** - **Full Graduate Faculty**  
Assistant Professor of Health Care Administration; Dr.PH., University of Pittsburgh. *Rebel since 2011.*

**Rebeira, Mayvis** - **Full Graduate Faculty**  
Assistant Professor of Health Care Administration; Ph.D., University of Toronto . *Rebel since 2015.*

**Sotero, Michelle** - **Full Graduate Faculty**  
Assistant Professor of Health Care Administration; Ph.D., University of Nevada Las Vegas. *Rebel since 2015.*

**Moseley, Charles** - **Full Graduate Faculty**  
Professor Emeritus of Health Care Administration and Policy; Ph.D., Virginia Commonwealth University. *Rebel since 1991.*

Other Full-Time Faculty

**Burston, Betty** – **Faculty in Residence**  
Ph.D., American University, 1984

**Hillegass, Bonnie – Internship Coordinator**  
MHA, St. Francis University; BSN, University of  
Nevada Las Vegas

## Master of Health Care Administration

### Plan Description

The Master of Health Care Administration degree program is the only graduate health care administration program in the Nevada System of Higher Education (NSHE). The MHA will prepare students to assume leadership roles in health care organizations. The degree is recognized in the health care field as an important credential that allows graduates to assume health care management positions. The curriculum is developed to include all the critical competencies for health care leadership, including issues of health care delivery, health care finance, ethical and legal issues in health care administration and management topics. Students and faculty will contribute through research and service to the knowledge and applications of management in health care; and they will use their education and expertise to help meet the health care management needs of the State of Nevada and beyond.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

To be considered for admission, an applicant must meet Graduate College standards and:

1. Hold a bachelor's degree or recognized equivalent from a regionally accredited institution. A criterion for admission is at least a B (3.0) grade point average, or equivalent in work completed after the first two years of a bachelor's degree program, and in all post-baccalaureate course work. An applicant who does not meet this academic criterion may request special consideration.
2. Submit the following documents as part of your online application for admission:

1. A one to two page personal essay describing why they want to pursue a career in health care management.
  2. A resume.
  3. Unofficial transcripts from all post-secondary institutions attended.
  4. Contact information for three recommendation providers who will upload letters of recommendation on your behalf.
3. Submit official GMAT or GRE scores.
  4. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Thesis Track**

Total Credits Required: 48  
Course Requirements

#### **Required Courses – Credits: 42**

HCA 701 - U.S. Health Care System: Programs and Policies  
HCA 702 - Epidemiology in Health Services Management  
HCA 703 - Management of Health Service Organizations and Systems  
HCA 715 - Health Services Research Methods  
HCA 716 - Health Care Accounting and Finance  
HCA 717 - Human Resources Management of Health Care Organizations  
HCA 718 - Health Care Economics  
HCA 719 - Operations and Quality Management of Health Services  
HCA 720 - Information Systems in Health Services Management  
HCA 721 - Advanced Health Care Finance  
HCA 730 - Strategic Management of Health Services

HCA 761 - Health Care Law and Ethics for Managers  
HCA 793 - Internship in Health Care Administration  
EAB 703 - Biostatistical Methods for the Health Sciences

#### **Thesis – Credits: 6**

HCA 799 - Thesis Research

#### **Degree Requirements**

1. Completion of a minimum of 48 credit hours with a minimum GPA of 3.00.
2. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

#### **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation from both degrees up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Students must submit his/her approved, properly formatted thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 2 Requirements: Non-Thesis Track**

Total Credits Required: 45

Course Requirements

#### **Required Courses – Credits: 42**

HCA 701 - U.S. Health Care System: Programs and Policies



HCA 702 - Epidemiology in Health Services Management  
HCA 703 - Management of Health Service Organizations and Systems  
HCA 715 - Health Services Research Methods  
HCA 716 - Health Care Accounting and Finance  
HCA 717 - Human Resources Management of Health Care Organizations  
HCA 718 - Health Care Economics  
HCA 719 - Operations and Quality Management of Health Services  
HCA 720 - Information Systems in Health Services Management  
HCA 721 - Advanced Health Care Finance  
HCA 730 - Strategic Management of Health Services  
HCA 761 - Health Care Law and Ethics for Managers  
HCA 793 - Internship in Health Care Administration  
EAB 703 - Biostatistical Methods for the Health Sciences

*Refer to your subplan for Graduation Requirements.*

### **Capstone Course – Credits: 3**

HCA 779 - Health Care Administration Capstone Course \*\*

\*\*Students that choose to write a comprehensive exam to meet their Capstone Course requirement do not have to complete the Appointment of Advisory Committee Approval Form and the Culminating Experience Form.

### Degree Requirements

Completion of a minimum of 45 credit hours with a minimum GPA of 3.00.

### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation from both degrees up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete the capstone course.

### **Plan Graduation Requirements**

## Health Care Administration & Policy Courses

### HCA 701 - U.S. Health Care System: Programs and Policies

Credits 3

Examines the manpower, financing and major service components of the US health care system. Addresses major issues of health care access, costs, and quality of care. Special emphasis on the role of government regulation and public policy in the system.

**Prerequisites** Graduate standing.

### HCA 702 - Epidemiology in Health Services Management

Credits 3

Examination and synthesis of concepts and an application of methods appropriate to epidemiology from a managerial perspective.

### HCA 703 - Management of Health Service Organizations and Systems

Credits 3

Theories and practice of the management of health services. Analysis and evaluation of the management functions and roles, organizational theories and behavioral perspectives and health care policy issues as they apply to health services management.

### HCA 715 - Health Services Research Methods

Credits 3

Course examines health services research concepts and methods. Topics include: health services research relevance; research study conceptualization; research design, operationalization and analysis; and the review of the health services research literature. Emphasis on research relevant to the practice of health care management.

**Prerequisites** EAB 703

### HCA 716 - Health Care Accounting and Finance

Credits 3

Introduction to financial and managerial accounting in the context of the health care industry. Also introduces concepts from finance for use in the decision making process.

**Prerequisites** ACC 201 or equivalent, 3 hours of undergraduate accounting.

### HCA 717 - Human Resources Management of Health Care Organizations

Credits 3

Covers structural and behavioral systems and human resources process systems. Taught from the perspective of strategic management and in the context of the legal environment for health care organizations.

### HCA 718 - Health Care Economics

Credits 3

Application of economic theory to study of health markets and institutions. Impact of insurance on demand for and supply of health care analyzed. Competition and regulation as forces in health care industry discussed from an economic perspective.

**Prerequisites** ECON 102 or equivalent, 3 hours of undergraduate microeconomics.

### HCA 719 - Operations and Quality Management of Health Services

Credits 3

Introduces concepts of operations management in the context of the health care industry. Covers analytical techniques in the context of quality management.

**Prerequisites** Graduate standing.

### HCA 720 - Information Systems in Health Services Management

Credits 3

Understanding of computerized needs of health services managers. Examines decision making process, information needs of various decisions and how "decision support systems" meet these needs. Major types of information systems examined, include financial, patient care & strategic management systems.

### HCA 721 - Advanced Health Care Finance

Credits 3

Further study of financial management in the context of the health care industry.

**Prerequisites** HCA 705 or the equivalent.

### HCA 730 - Strategic Management of Health Services

Credits 3

Emphasis on concepts of strategic and operational management for health care organizations. Also covers managerial epidemiology and marketing.

Utilizes case studies.

**Prerequisites** HCA 705

HCA 761 - Health Care Law and Ethics for Managers  
Credits 3

Course examines legal and ethical issues that impact health care management. Topics include: liability, contract and antitrust law; employee and labor law, professional relations, and ethical issues regarding; beginning and end of life, patient rights, medical research, access to care; conflict of interest, and confidentiality.

HCA 779 - Health Care Administration Capstone  
Course  
Credits 3

Capstone experience provides the Health Care Administration graduate degree candidate the option to select one of the following: an indepth project or a comprehensive examination.

**Same as** HED 710/EAB 710/EOH 710

**Notes** The project option requires a formal paper and a presentation.

**Grading** S/F grading only

**Prerequisites** Last semester in program or consent of instructor.

HCA 793 - Internship in Health Care Administration  
Credits 3 – 6

Provides students with an applied work experience in a local health services organization. Course is faculty supervised and requires written reports and other structured assignments.

**Formerly** HCA 713

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor.

HCA 794 - Professional Paper in Health Care  
Administration  
Credits 3

Provides the opportunity for a graduate degree candidate to be involved in an in-depth project either written or experimental in nature. A formal paper and presentation describing the project culminate this experience.

**Notes** May be repeated for a maximum of six credits.

**Prerequisites** Department approval.

HCA 798 - Independent Study  
Credits 1 – 3

Independent study in a specific area of student interest under the direction of a faculty member.

**Notes** May be repeated to a maximum of six credits.

**Grading** S/F grading only.

**Prerequisites** Consent of instructor.

HCA 799 - Thesis Research  
Credits 3

**Notes** May be repeated, but a maximum of six credits will apply towards the student's degree program.

**Grading** S/F grading only.

**Prerequisites** Consent of HCA& P Department Chair, graduate courses in research methodology and in statistics.

## **School of Dental Medicine**

The UNLV School of Dental Medicine, which accepted its Inaugural Class in August of 2002, has been designed to serve our local community and the state of Nevada in oral health care, health services, research and scholarly activities. Education of dental students will be accomplished through a competency based curriculum with a special emphasis on biomedical sciences, professional studies and an innovative vertically integrated team approach for clinical instruction and delivery of patient care. The School of Dental Medicine is recruiting and employing a diverse and distinguished faculty to facilitate the program. The competency-based education program has at its core a student and patient entered environment designed to maximize learning and patient care delivery. Beginning dentists will be exposed to in depth studies of biological and clinical sciences as well as biomedical and bio-ethical disciplines. Students will encounter a broad spectrum of clinical experiences to prepare them for entry into the profession. These experiences will begin in year one of the curriculum, and clinical responsibilities will expand in scope and depth throughout the four years. During year four, students will have the opportunity to select placement in a variety of clinically supervised community settings. They will also have extensive exposure to business and financial management designed to meet the challenges of dental practice. Furthermore, they will be introduced to principles of research, will have an opportunity to conduct independent research and will be encouraged to pursue scholarly activities with the possibility of creating a career in academic dentistry. Training will occur in state of the art facilities designed to achieve the goals of the dental academic program. Today's dental professional needs a learning environment that offers interaction with other medical professionals and facilitates diagnosis and treatment to improve the patient's overall health. The dental school is adopting this new reality and keeping it at the forefront as it designs the teaching facility at the UNLV Shadow Lane campus. The building is part of a regional campus that is expected to house the university's biotech research center, including the UNLV Cancer Institute. Students will have access to the latest technology with other health care professionals in diagnosing disease and treating

patients. By the time of graduation, students will be competent and confident to begin a rewarding career as a provider of comprehensive oral health care. For additional information, visit <http://dentalschool.unlv.edu>.

**Karen P. West, D.M.D., Dean, School of Dental Medicine**

**Christine C. Ancajas, D.D.S., Assistant Dean for Admission and Student Affairs**

**William D. Davenport, Jr., Ph.D., Associate Dean for Academic Affairs**

**Ellen V. Herrick, Assistant Dean of Finance and Administration**

**Ronald R. Lemon, D.M.D., Associate Dean, Advanced Education**

**Connie C. Mobley, Ph.D., Associate Dean for Research**

**Judith Skelton, Ph.D., Assistant Dean for Outreach and Engagement**

**Rick B. Thiriot, D.D.S., Co-Associate Dean for Clinical Services**

**Wendy S. Woodall, D.D.S., Co-Associate Dean for Clinical Services**

**James Mah, DMSc, Graduate Coordinator**

## School of Dental Medicine Faculty

### Dean

#### **West, Karen** - *Full Graduate Faculty*

Professor; D.M.D., University of Louisville School of Dentistry; M.P.H., University of South Carolina School of Public Health.

### Associate Dean

#### **Lemon, Ronald** - *Full Graduate Faculty*

Professor; D.M.D., University of Kentucky, School of Dental Medicine.

### Co-Associate Dean for Clinical Services

#### **Thiriot, Rick**

Assistant Professor-in-Residence; B.S., University of Nevada, Las Vegas; D.D.S., University of the Pacific School of Dentistry.

### Assistant Dean

#### **Herrick, Ellen**

B.S., University of Nevada, Las Vegas.

### Assistant Dean for Admissions and Student Affairs

#### **Ancajas, Christine** - *Assistant Graduate Faculty*

B.A., California State University; D.D.S., Northwestern University Dental School.

### Assistant Dean for Outreach and Engagement

#### **Skelton, Judith** - *Full Graduate Faculty*

Professor; B.S., University of Louisville; M.E.D., University of Florida; Ph.D., University of Florida.

### Graduate Faculty

#### **Bethea, Lorenzo**

B.S., University of Phoenix.

#### **Capurro, Antonina**

Visiting Professor; B.S., University of Nevada, Las Vegas; D.M.D., University of Nevada, Las Vegas; M.P.H., University of Nevada, Las Vegas.

#### **Cole, Dean**

Associate Professor; A.A., Pasadena City College; D.D.S., Loyola University.

#### **Danforth, Robert**

Associate Professor; D.D.S., Loma Linda University.

#### **Davenport Jr., William** - *Full Graduate Faculty*

Professor; B.S., University of Mississippi; M.S., University of Mississippi; Ph.D., Medical College of Georgia.

#### **Demopoulos, Christina**

Assistant Professor-in-Residence; B.S., University of Nevada, Las Vegas; D.D.S., University of Southern California School of Dentistry; M.P.H., University of Nevada, Las Vegas.

#### **Dounis, Georgia**

Associate Professor; D.D.S., Marquette University, School of Dentistry; M.S., Marquette University School of Dentistry.

#### **Evans, Laurie**

B.S.B.A., University of Phoenix; M.B.A., University of Phoenix.

#### **Everett, Rhonda** - *Full Graduate Faculty*

Assistant Professor in Residence; B.A., University of California; D.D.S., University of Southern California, School of Dentistry; M.P.H., University of Nevada, Las Vegas.

#### **Farfel, Elena**

Visiting Assistant Professor; B.A., University of Colorado; D.M.D., University of Nevada, Las Vegas.

#### **Faulkner, Davin**

Visiting Assistant Professor; B.S., Brigham Young University; D.M.D., University of Nevada, Las Vegas.

#### **Fox, Gerald**

Visiting Assistant Professor; B.S., Brooklyn College; D.D.S., Temple University School of Dentistry.

#### **Galbraith, Gillian** - *Full Graduate Faculty*

Professor, M.D., University of London, King's College Hospital Medical School.

**Gallob, John**

Assistant Professor-in-Residence; B.S., University of Arizona-Tucson; D.D.S., Nova Southeastern University.

**Gerrard, Curtis**

B.A., University of Nevada, Las Vegas; M.A., Regis University.

**Haskin, Christine**

Associate Professor; B.A., University of Texas at Austin; M.S., Southwest Texas State University; D.D.S., University of Texas; Ph.D., University of Texas.

**Herschaft, Edward** - *Full Graduate Faculty*

Professor; B.A., Queens College of the City University of New York; D.D.S., West Virginia University School of Dentistry; M.A., University of New Orleans.

**Hillyard, Stanley** - *Full Graduate Faculty*

Professor; B.A., University of California, Riverside; Ph.D., University of California, Los Angeles.

**Howard, Katherine** - *Full Graduate Faculty*

Assistant Professor; B.Sc., Texas A & M University; Ph.D., University of Texas.

**Hughes, Cody** - *Full Graduate Faculty*

Assistant Professor-in-Residence; D.M.D., University of Nevada, Las Vegas, School of Dental Medicine; M.S., Indiana University.

**Hurlbut, Bernard** - *Full Graduate Faculty*

Assistant Professor-in-Residence; B.A., Arizona State University; D.D.S., Baylor College of Dentistry.

**Ingel, Andrew**

Visiting Assistant Professor-in-Residence; B.S., Villanova University; M.S., Bryn Mawr College; D.M.D., University of Pittsburgh School of Dental Medicine.

**Jones, Francis**

Assistant Professor-in-Residence; B.A., California State University; D.D.S., Meharry Medical College.

**Joyner-Tucker, Arlene**

Assistant Professor-in-Residence; B.S., North

Carolina University; D.D.S., Howard University College of Dentistry; M.P.H., University of California, Los Angeles.

**Kingsley, Karl** - *Full Graduate Faculty*

Associate Professor; B.A., New Mexico State University; B.B.A., New Mexico State University; Ph.D., University of Nevada, Las Vegas; M.P.H., University of Nevada, Las Vegas.

**Kirit, Theodore**

Associate Professor-in-Residence; M.D., University of Bucharest, School of Medicine; D.D.S., University of Bucharest, Romania, School of Dentistry; M.S., New York University.

**Kuprienko, Kirstina**

Visiting Assistant Professor; B.S., University of Nevada, Las Vegas; D.M.D., University of Nevada, Las Vegas School of Dental Medicine.

**Leavitt, William**

Visiting Professor-in-Residence; B.A., Brigham Young University; M.P.A., University of Southern California; D.D.S., University of the Pacific.

**Lockhart, Robert**

Associate Professor-in-Residence; D.D.S., Indiana University of Dentistry; M.S., University of Missouri, Kansas City.

**Mack, Michael**

B.S., University of Nevada, Las Vegas.

**Mah, James** - *Full Graduate Faculty*

Professor in Residence. B.S., University of Alberta, Edmonton; D.D.S., University of Alberta, Edmonton; M.S., University of Alberta, Edmonton; D.M.Sc., Harvard University.

**Martin, Bob** - *Assistant Graduate Faculty*

Assistant Professor-in-Residence; B.S., Bridgewater College; D.D.S., Medical College of Virginia.

**McAlpine, George**

B.A., University of Illinois; D.D.S., Loyola University; M.S., University of Texas, Health Sciences Center, Dental Branch and Wilford-Hall medical Center.

**McClain, Mildred** - *Full Graduate Faculty*  
Assistant Professor; A.S., University of Nevada, Las Vegas; B.S., University of Nevada, Las Vegas; M.Ed., University of Nevada, Las Vegas; Ph.D., University of Nevada, Las Vegas.

**Mobley, Connie** - *Full Graduate Faculty*  
Professor; B.S., University of Southern Louisiana; M.S., Florida International University; Ph.D., Texas A & M.

**Nelson, Stanley**  
Professor; B.S., Albion College; D.D.S., University of Michigan School of Dentistry; M.S., University of Michigan School of Dentistry.

**Neubauer, Michael**  
Associate Professor-in-Residence; B.S., University of California; D.D.S., University of California; M.S., University of Iowa.

**O'Grady, Cynthia**  
B.A., University of Oregon; M.A., King's College.

**Ord, David**  
Assistant Professor-in-Residence; B.S., Brigham Young University; D.D.S., University of Southern California.

**Orr II, Daniel**  
Professor-in-Residence; B.S., Brigham Young University; D.D.S., University of Southern California School of Dentistry; M.S., University of Utah School of Medicine, Department of Anesthesiology; Ph.D., Columbia Pacific University; J.D., William Howard Taft University School of Law; M.D., University of Health Sciences, Antigua School of Medicine.

**Phillips, Randy**  
Assistant Professor-in-Residence; B.A., University of California at Los Angeles; D.D.S., University of Southern California School of Dentistry.

**Phipps, Flora Monique**  
Assistant Professor-in-Residence; B.S., Hampton University; D.D.S., Virginia Commonwealth University.

**Reinke, Robin**  
Assistant Professor-in-Residence; B.S., University of Puget Sound; D.D.S., University of Washington

School of Dentistry; M.P.A., Keller Business School of Management of DeVry University.

**Rothbart, Jonathan**  
Associate Professor-in-Residence; A.B., Brandeis University; D.M.D., Boston University Goldman School of Graduate Dentistry.

**Sanders, R. Michael**  
Professor; D.M.D., College of Medicine and Dentistry; Ed.M., Rutgers University; M.P.H., Robert Woods Johnson Medical School.

**Scherer, Michael**  
Assistant Professor-in-Residence; B.S., University of Miami; D.M.D., Nova Southeastern University; M.S., Ohio State University.

**Self, McKinley**  
Assistant Professor-in-Residence; B.S., University of Utah; D.M.D., Case Western Reserve University.

**Seran, Clifford** - *Full Graduate Faculty*  
Assistant Professor; B.S., Bucknell University; D.M.D., University of Pennsylvania.

**Tham, Foeng (Bill)**  
Visiting Assistant Professor; B.A., Union College; D.D.S., University of Missouri; J.D., Concord University School of Law.

**Tozzi, Raymond**  
Assistant Professor-in-Residence; B.S., St. Francis College; D.D.S., Georgetown University School of Dentistry.

**Walker Jr., Richard**  
Professor; B.A., Westminster College; D.D.S., University of Missouri at Kansas City.

**Wadsen, Jason**  
B.S., University of Nevada, Las Vegas; M.P.A., University of Nevada, Las Vegas; Ph.D., University of Nevada, Las Vegas.

**Webberson, Michael**  
Assistant Professor-in-Residence; B.S., University of Nevada, Las Vegas; D.D.S., Creighton University School of Dentistry.

**Woo, Victoria**

Associate Professor-in-Residence; D.D.S., University of Western Ontario.

**Woodall, Wendy**

Assistant Professor; B.A.S.S., Stephen F. Austin State University; D.D.S., University of Texas.

**Zhou, Wenlian**

Assistant Professor; D.D.S., Beijing Medical University School of Stomatology General Dentistry; Ph.D., Peking University Health Science Center, School of Stomatology Orthodontics; D.M.D., University of Nevada, Las Vegas, School of Dental Medicine.

**Zoller, Lawrence**

Professor-in-Residence; M.A., Rutgers University; Ph.D., University of Pennsylvania.

**Master of Science - Oral Biology****Plan Description**

The future of oral health medicine is dependent upon significant orthodontic and craniofacial research. Masters of Science – Oral Biology emphasizes orthodontic and craniofacial research and aims to aid developing orthodontic residents in becoming successful researchers, educators and/or clinicians. It does this by providing a diverse clinical experience with a strong integration of basic sciences. This program will equip residents with the clinical, the analytical and the managerial skills that are necessary to provide oral healthcare to the community.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

**Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

In addition to being accepted to the UNLV Graduate College, prospective students must meet the following criteria.

1. Must have passed Parts I and II, National Dental Board Examination.
2. Must have earned a DMD/DDS degree from a program in the US or Canada that is fully accredited by the Commission on Dental Accreditation
3. Must be eligible for a Nevada state dental license and receive a full or limited dental license from the Nevada State Board of Dental Examiners prior to engaging in any clinical activity.
4. Application through the Postdoctoral Application Support Service (PASS) including specified letters of recommendations.
5. Background and criminal checks as required.
6. Medical history, immunizations and physicals as required.



All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 147

Course Requirements

### **Required Courses – Credits: 141**

ORTH 8001 - Introduction to Orthodontics (4 Credits)  
ORTH 8011 - Cephalometrics (2 Credits)  
ORTH 8102 - Clinical Specialty Seminars I (2 Credits)  
ORTH 8103 - Clinical Specialty Seminars II (3 Credits)  
ORTH 8104 - Clinical Specialty Seminars III (3 Credits)  
ORTH 8201 - Introduction to Clinic Orthodontics (4 Credits)  
ORTH 8202 - Clinic Orthodontics (6 Credits)  
ORTH 8203 - Clinic Orthodontics (6 Credits)  
ORTH 8204 - Clinic Orthodontics (6 Credits)  
ORTH 8205 - Clinic Orthodontics (6 Credits)  
ORTH 8206 - Clinic Orthodontics (12 Credits)  
ORTH 8207 - Clinic Orthodontics (2 x 6 Credits)  
ORTH 8512 - Biomechanical Principles (2 Credits)  
ORTH 8513 - Growth and Developments (2 Credits)  
ORTH 8518 - Orthodontic Materials (2 Credits)  
ORTH 8602 - Diagnosis, Treatment Planning and Case Presentation (4 Credits)  
ORTH 8603 - Diagnosis & Treatment Plan (4 Credits)  
ORTH 8604 - Diagnosis & Treatment Plan (4 Credits)  
ORTH 8605 - Diagnosis, Treatment Planning and Case Presentation (4 Credits)  
ORTH 8606 - Diagnosis, Treatment Plan and Case Presentation (8 Credits)  
ORTH 8607 - Diagnosis & Treatment Plan (2 x 2

Credits)  
ORTH 8803 - Literature Review/Journal Club (2 Credits)  
ORTH 8804 - Literature Review/Journal Club (2 Credits)  
ORTH 8808 - Literature Review IV (1 Credit)  
ORTH 8910 - Craniofacial Anomalies (2 Credits)  
PGDE 8312 - Independent Research I (3 Credits)  
PGDE 8313 - Independent Research II (3 Credits)  
ORTH 8314 - Advanced Research (1 Credits)  
PGDE 8315 - Independent Research III (3 Credits)  
PGDE 8316 - Independent Research (3 Credits)  
PGDE 8402 - Biomedical Sciences Core I (2 Credits)  
PGDE 8403 - Biomedical Sciences Core II (4 Credits)  
PGDE 8415 - Advanced Biomedical Sciences (2 Credits)  
PGDE 8503 - Interdisciplinary Diagnosis and Treatment Planning (2 Credits)  
PGDE 8516 - Advanced Clinical Sciences: Radiology (2 Credits) 4 cr  
PGDE 8517 - Temporomandibular Disorders and Occlusion (2 Credits)  
PGDE 8701 - Methods of Literature Review/Scientific Writing (2 Credits)  
PGDE 8702 - Research Methodology, Biostatistics & Epidemiology (2 Credits)  
PGDE 8703 - Research Methods II (2 Credits)  
PGDE 8715 - Professional Studies Core: Practice Management (2 Credits)

### **Thesis – Credits: 6**

PGDE 8901 - Thesis

Degree Requirements

1. The Master of Science – Oral Biology program is designed to be a three year program (divided as follows: Year 1: 3 trimesters (summer, fall, spring); Year 2: 2 semesters (Fall July-Dec, and Spring Jan-June); and Year 3: fall semester).
2. The advanced program in Orthodontics and Dentofacial Othopedicas is accredited by the Commission on Dental Accreditation; as such graduates of UNLV School of Dental Medicine's Oral Biology program will also receive a certificate in Orthodontics and

Dentofacial Orthopedics which is required for licensure.

3. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. A master's thesis, which carries six credits, is required for the Oral Biology M.S. It must conform to the guidelines set forth by the Graduate College in this catalog and in its Thesis and Dissertation Manual. The M.A. thesis should be an original contribution to academic knowledge. Thesis projects must be designed, developed, and written in close consultation with an appropriate thesis advisor and with the student's thesis committee.
3. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.

ORTH 8001 - Introduction to Orthodontics  
Credits 4

ORTH 8011 - Cephalometrics  
Credits 2

To discuss the history, development and the use of cephalometrics in clinical orthodontic practice. This course will cover the basic principles of Cephalometric analysis and describe developing as well as established skeletal Class I, II & III discrepancies.

ORTH 8102 - Clinical Specialty Seminars I  
Credits 2  
Clinical Specialty Seminars I

ORTH 8103 - Clinical Specialty Seminars II  
Credits 3

A continuation and progressing advanced level of the one-hour clinical seminars that will proceed all clinical sessions. The purpose of these seminars is for the faculty to preview the daily clinic schedule and prepare the residents for the procedures to be performed during that clinic session.

ORTH 8104 - Clinical Specialty Seminars III  
Credits 3

ORTH 8201 - Introduction to Clinic Orthodontics  
Credits 4

An introduction and overview of the three-hour clinical sessions during which the residents will screen, diagnose, treatment plan and treat and/or manage the orthodontic malocclusions of their patients, under the supervision of the attending orthodontic clinical faculty. Clinical attire, policies, procedures and professionalism will be discussed.

ORTH 8202 - Clinic Orthodontics  
Credits 6

ORTH 8203 - Clinic Orthodontics  
Credits 6

A continuation and progressing advanced level of the three-hour clinical sessions during which the residents will screen, diagnose, treatment plan and treat and/or manage the orthodontic malocclusions of their patients under the supervision of the attending orthodontic clinical faculty.

ORTH 8204 - Clinic Orthodontics  
Credits 6

ORTH 8205 - Clinic Orthodontics  
Credits 6

A continuation and progressively-advanced level of three-hour clinical sessions during which the residents will screen, diagnose, treatment plan and treat and/or manage the orthodontic malocclusions of their patients under the supervision of the attending orthodontic clinical faculty.

ORTH 8206 - Clinic Orthodontics  
Credits 12

A continuation and progressively-advanced level of three-hour clinical sessions during which the residents will screen, diagnose, treatment plan and treat and/or manage the orthodontic malocclusions of their patients, under the supervision of the attending orthodontic clinical faculty.

ORTH 8207 - Clinic Orthodontics  
Credits 6

This course provides Orthodontics Residents a more advanced level of material regarding orthodontic diagnosis, treatment planning and treatment.

Residents build on their previous knowledge and experience. Residents are taught various finishing techniques and how to choose the proper retention per individual cases. Actual progress is compared to pretreatment projections. If progress is not on schedule, causes and solutions are discussed and changes are implemented as needed. Residents must prepare ABO written presentations for their 6 finished cases.

ORTH 8314 - Advanced Research  
Credits 1  
ADVANCED RESEARCH

ORTH 8415 - Advanced Biomedical Sciences  
Credits 2

This advanced continuum provides an in-depth update in clinically related topics in growth and development, oral and maxillofacial pathology, oral medicine, and systemic diseases that affect the oral cavity.

**Prerequisites** ORTH 8414

ORTH 8512 - Biomechanical Principles  
Credits 2

The biomechanics course aims to teach the first year orthodontic residents basic principles of tooth movement. It will include definitions of force vectors, force application and various biological responses based on mechanical principles.

ORTH 8513 - Growth and Developmentes  
Credits 2  
GROWTH AND DEVELOPMENTES

ORTH 8518 - Orthodontic Materials  
Credits 2

This course is comprised of seminar discussions of materials used in the practice of orthodontics. Students will demonstrate an understanding of: the characterization of contemporary materials, methods of testing, clinical use, and health and safety concerns with the use of common materials. This course will also provide the foundation for developing a research project involving orthodontic materials.

ORTH 8602 - Diagnosis, Treatment Planning and Case Presentation  
Credits 4

A comprehensive in depth study of orthodontic diagnosis, treatment planning and ABO case reports of patients treated by orthodontic residents in our clinic. This will be accomplished in a seminar format where residents will present their case reports to fellow residents and faculty.

ORTH 8603 - Diagnosis & Treatment Plan  
Credits 4

A comprehensive in depth study of orthodontic diagnosis, treatment planning and ABO case reports of patients treated by orthodontic residents in our clinic. This will be accomplished in a seminar format where residents will present their case reports to fellow residents and faculty

ORTH 8604 - Diagnosis & Treatment Plan  
Credits 4

ORTH 8605 - Diagnosis, Treatment Planning and Case Presentation  
Credits 4

A comprehensive in depth study of orthodontic diagnosis, treatment planning and American Board of

Orthodontics (ABO) case reports of patients treated by orthodontic residents in our clinic. This will be accomplished in a seminar format where residents will present their case reports to fellow residents and faculty, followed by a comprehensive discussion of every case.

ORTH 8606 - Diagnosis, Treatment Plan and Case Presentation  
Credits 8  
DIAGNOSIS,  
TREATMENT PLAN AND CASE PRESENTATION

ORTH 8607 - Diagnosis & Treatment Plan  
Credits 2  
A comprehensive in depth study, diagnosis, treatment planning and ABO case reports of patients treated by orthodontic residents in our clinic. This will be accomplished in a seminar format where residents will present their case reports to fellow residents and faculty

ORTH 8803 - Literature Review/Journal Club  
Credits 2  
Introduction to analyzing and understanding literature in orthodontics, including classification of study designs, hypothesis testing, scientific writing, analysis and interpretation of data, and critical evaluation of the literature. Residents participate in critical review of research in orthodontics and craniofacial biology throughout their education and in preparation for the ABO examination.

ORTH 8804 - Literature Review/Journal Club  
Credits 2

ORTH 8808 - Literature Review IV  
Credits 1  
A continuation and progressively-advanced level of analyzing and understanding literature in orthodontics including, classification of study design, hypothesis testing, scientific writing, analysis and interpretation of data, and critical evaluation of the literature.

ORTH 8910 - Craniofacial Anomalies  
Credits 2  
Introduce diagnostic and treatment planning principles of interdisciplinary team approach, as well

as, provide a sound basis for clinical examination, diagnosis and team management of patients with severe malocclusion associated with birth defects and craniofacial anomalies.

PGDE 8312 - Independent Research I  
Credits 3

PGDE 8313 - Independent Research II  
Credits 3  
A continuation and progressing advanced level of the research requirements, facilities and direction necessary for the orthodontic residents to successfully complete their advanced education in orthodontics and dentofacial orthopedics.

PGDE 8315 - Independent Research III  
Credits 3  
This course continues with advanced levels of research and scientific methodology. Topics include literature analysis, institutional review board (IRB), informed consent, experimental design, basic statistics, method development, data analysis and reporting.

PGDE 8316 - Independent Research  
Credits 3  
At the conclusion of this course, the Orthodontic Resident will be able to:

1. Understand the scientific method as it applies to critical review of the literature and research design
2. Understand literature search techniques and strategies as well as the different levels of research publications ranging from opinions, case reports, blinded studies, prospective research, randomized controlled clinical studies to systematic reviews.
3. Complete an independent research project to include an abstract, proposal, data collection, analysis and write up for submission to an appropriate peer-reviewed scientific journal
4. Complete Master's Thesis

PGDE 8402 - Biomedical Sciences Core I  
Credits 4

PGDE 8403 - Biomedical Sciences Core II  
Credits 4

PGDE 8415 - Advanced Biomedical Sciences  
Credits 2

PGDE 8503 - Interdisciplinary Diagnosis and  
Treatment Planning  
Credits 2

This course provides Graduate Residents a background in the current state of the art for the major clinical disciplines. The course is conducted as a literature review of current research with summary papers to be written in each of the topics.

PGDE 8516 - Adv Clin Sci: Radiology  
Credits 4

Provide residents with digital maxillofacial radiology procedures and protocols. Introduce residents to advanced maxillofacial radiology technology, i.e.; ConeBeam CT

PGDE 8517 - TMD  
Credits 2

This course reviews appropriate literature of stomatognathic function, diagnosis and treatment of TM Disorders. The student will review the multi-factorial theory of TM Disorders and will distinguish simple TM Disorders vs. complex TM Disorders. A plan for management of TM disorders within their clinical discipline will be developed.

PGDE 8701 - PSC: Lit Review  
Credits 2

PGDE 8702 - Res Design  
Credits 2

PGDE 8703 - Research Methods II  
Credits 2

This course will present relevant topics in the areas of practice management, ethics, nutrition and cultural diversity. The application of these topics to the practice of orthodontics will be emphasized.

PGDE 8715 - PSC: Practice Management  
Credits 2

PGDE 8901 - Thesis  
Credits 6

This course guides students through the process of writing their proposal and thesis, following the guidelines/practices for oral biology/orthodontics.

## School of Nursing

Welcome to the School of Nursing at UNLV. Our nursing program is the oldest in southern Nevada and the only one in Nevada to offer a Ph.D. program. All of our graduate programs are web-based to allow for "anytime, anyplace" education, but may involve occasional visits to campus.

In our Master of Science program, there are currently three tracks, the Family Nurse Practitioner Track, the Pediatric Nurse Practitioner, and the Nurse Educator Track. We also offer post-masters certificates in these areas. Family Nurse Practitioners provide primary care for individuals across the lifespan and many provide care to the indigent and uninsured populations. Pediatric Nurse Practitioners provide care to children from birth through young adult in pediatric primary health care including well child care and prevention/management of common pediatric acute illnesses and chronic conditions. The Nurse Educator program prepares nursing students to teach nursing. This provides more qualified faculty so that all of the area nursing schools may increase their enrollment. The MS program is growing rapidly because of the great need for advanced practice nurses and nurse educators in Nevada. The master's program has full accreditation by the Commission on Collegiate Nursing Education (CCNE). The Master of Science in Nursing graduate program is designed to provide students pursuing a career in nursing the opportunity to acquire the knowledge, skills and abilities requisite to the safe, effective and efficient practice of nursing.

The School of Nursing also offers a Doctorate of Nursing Practice (DNP) for both post-bachelor's degree and post-master's degree students. This program is also on-line, but requires occasional trips to campus for orientation, skills training and testing. The DNP degree is a terminal professional practice degree and prepares graduates for advanced clinical practice and leadership roles to serve the health care needs of the people of Nevada, the nation, and the professional community. The DNP program is accredited by the Commission on Collegiate Nursing Education (CCNE).

We also offer an on line Ph.D. in Nursing program. This program is research-focused and will help meet the need for more highly qualified faculty in Nevada and the surrounding states. If you are considering becoming a doctorally prepared nurse educator scholar, this web-based program will meet your needs. You will be educated to advance the scientific discipline through research, innovation in the classroom, and dynamic leadership. We are rapidly expanding our research activities and have a number of well-funded graduate assistant positions available for full time students. In this role, graduate students work closely with faculty on their research, or teach undergraduate classes, or supervise students in the clinical setting. It is a wonderful opportunity to enhance your education.

Finally, we have recently opened an Interdisciplinary Health Sciences PhD, in collaboration with Kinesiology, Nutrition, Health Physics, and Physical Therapy. This program is focused on biobehavioral issues and prepares advanced nurses to work collaboratively with other health care professionals to advance education and research.

I encourage you to read the catalog and explore our website to find out more about all of these programs and to visit us when you are in the Las Vegas area.

**Carolyn Yucha, Ph.D., RN, CNE, Dean**

**Jillian Inouye, Ph.D., RN, Associate Dean for Research**

**Rebecca Benfield, Ph.D., C.N.M., R.N., Associate Dean for Academic Affairs**

**Mary Bondmass, Ph.D., R.N., C.N.E., Associate Dean for Faculty Affairs**

## Nursing Faculty

### Dean

**Yucha, Carolyn** - *Full Graduate Faculty*  
Professor; BS SUNY Albany; MS SUNY Buffalo;  
Ph.D. SUNY, Health Sciences Center, Syracuse, NY.

### Associate Dean for Academic Affairs

**Menzel, Nancy** - *Full Graduate Faculty*  
Associate Professor; BS Cornell University; MS  
Boston University; Ph.D. University of South  
Florida. *Rebel since 2006.*

### Associate Dean for Research

**Inouye, Jillian** - *Full Graduate Faculty*  
Professor; BS, University of Hawaii; MS, University  
of California; MA, University of Hawaii; PhD,  
University of Hawaii. *Rebel since 2013.*

### Psychosocial Nursing Department Chair

**Clark, Michele** - *Full Graduate Faculty*  
Associate Professor; B.S. University of California,  
San Francisco; M.S., Ph.D. University of Arizona.  
*Rebel since 2006.*

### Physiological Nursing Department Chair

**Alpert, Patricia** - *Full Graduate Faculty*  
Associate Professor; B.S., M.S., M.P.H. University of  
Hawaii; D.P.H. Loma Linda University. *Rebel since*  
*1991.*

### MSN Coordinator

**VanBeuge, Susan** - *Full Graduate Faculty*  
Assistant Professor; B.S.N., Pacific Lutheran  
University; M.S.N., University of Nevada Las Vegas;  
D.N.P. University of Utah. *Rebel since 2006.*

### Ph.D. Coordinator

**Clark, Michele** - *Full Graduate Faculty*  
Associate Professor; B.S.N. University of California,  
San Francisco; M.S., Ph.D. University of Arizona.  
*Rebel since 2006.*

## DNP Coordinator

**Sabo, Carolyn** - *Full Graduate Faculty*  
Professor; B.S.N., M.S. University of Utah; Ed.D.  
Brigham Young University. *Rebel since 1984.*

## Graduate Faculty

**Angosta, Alona** - *Full Graduate Faculty*  
Assistant Professor; B.S.N, M.S.N. University of  
Nevada, Las Vegas; Ph.D. University of  
Hawaii. *Rebel since 2005.*

**Black, Ipuna** - *Full Graduate Faculty*  
Assistant Professor, B.S.N. University of Nevada,  
Las Vegas; M.S.N. SUNY Center Stony Brook;  
Ph.D. University of Nevada, Las Vegas. *Rebel since*  
*2014*

**Candela, Lori** - *Full Graduate Faculty*  
Associate Professor; BS Metropolitan State College;  
MS, University of Colorado; Ed.D. University of  
Southern California. *Rebel since 1999.*

**Doolen, Jessica** - *Full Graduate Faculty*  
Assistant Professor; B.S.N., M.S.N., University of  
Nevada, Las Vegas; Ph.D., University of Northern  
Colorado. *Rebel since 1994.*

**Feng, Du** - *Full Graduate Faculty*  
Professor; B.S., Peking University; M.S., University  
of Southern California; Ph.D., University of Southern  
California. *Rebel since 2013.*

**Gatlin, Tricia** - *Full Graduate Faculty*  
Assistant Professor; B.S.N, University of Memphis;  
M.S., University of Portland; PhD, University of  
Arizona. *Rebel since 2011.*

**Kawi, Jennifer** - *Full Graduate Faculty*  
Assistant Professor; B.S.N., Saint Louis University;  
M.S.N., University of Nevada, Las Vegas; Ph.D.  
University of Colorado, Denver. *Rebel since 2007.*

**Lee, Hyunhwa** - *Full Graduate Faculty*  
Assistant Professor; B.S.N., M.S.N., Yonsei  
University, Seoul, Republic of Korea; Ph.D.,

University of Michigan, Ann Arbor. *Rebel since 2014*

**Lukkahatai, Nada** - *Full Graduate Faculty*  
Assistant Professor; B.S.N. Faculty of Nursing,  
University, Chiang Mai, Thailand; M.S.N., Old  
Dominion University; Ph.D., University of North  
Carolina at Chapel Hill. *Rebel since 2014*

**Maes, Cheryl** - *Associate Graduate Faculty*  
Lecturer; B.S.N., M.S.N., University of Nevada, Las  
Vegas. *Rebel since 2004.*

**Serafica, Reimund** - *Full Graduate Faculty*  
Assistant Professor; A.A., M.S.N., Gardner-Webb  
University; Ph.D., University of Hawaii at  
Manoa. *Rebel since 2014*

**St. Pierre Schneider, Barbara** - *Full Graduate  
Faculty*  
Associate Professor; B.S.N., LSUMC; M.S.,  
University of Washington; DNSc, UCLA. *Rebel  
since 2006.*

**Tan, Rhigel** - *Full Graduate Faculty*  
Assistant Professor; B.S.N., Cebu City Medical  
Center College of Nursing; MN, Cebu Normal  
University; DNP Rocky Mountain University of  
Health Professions. *Rebel since 2005.*

**Thomason, Diane** - *Full Graduate Faculty*  
Assistant Professor; B.S.N., M.S.N., Ph.D.,  
University of Washington. *Rebel since 2013.*

**Yu, Valerie** - *Full Graduate Faculty*  
Assistant Professor; B.S.N., M.S.N., University of  
Texas at Arlington; DNP, University of Iowa. *Rebel  
since 2014*

## Advanced Graduate Certificate in Family Nurse Practitioner

### Plan Description

Individuals who already have a master's degree in nursing, and meet the admission qualifications will be allowed to take courses as a non-degree student. No degree will be awarded, but a certificate documenting completion of the course work will be provided and transcripts showing completion of the courses will be available. Each individual applicant will be evaluated to determine the courses required in order to complete the specific certificate program. Additional courses beyond the minimum courses needed for the certificate program may be required if the applicant's earned MS in nursing lack courses required by the UNLV School of Nursing.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Students must apply and submit all admission materials via the ApplyYourself system available through the Graduate College. The following items are required:

1. Transcripts of all course work for both baccalaureate and masters degrees must be sent to the School of Nursing and Graduate College. Transcripts must show coursework in Advanced Physical Assessment, Advanced Pathophysiology, and Advanced Pharmacology. Additionally, if unofficial transcripts are available to the student, please upload to the Apply Yourself application. Nursing course work must have been completed at a nursing program accredited by the National League for Nursing Accrediting Commission or Commission on Collegiate Nursing Education.



2. Two letters of recommendation from either instructors or employers that speak to the applicant's potential to complete the Post-Master's FNP Certificate Program.
3. Statement of 300 words describing the students' professional goals and reason for seeking a nurse practitioner certificate.
4. Current resume or vita.
5. Current valid RN license in state of residence.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 25

Course Requirements

#### **Required Courses – Credits: 25**

NURS 701 - Diagnostic Reasoning and Clinical Decision Making for the FNP  
 NURS 714 - Family Theory and Health Promotion  
 NURS 740R - FNP Adult and Women's Health  
 NURS 750R - FNP Children and OB  
 NURS 752 - Nurse Practitioner Business and Roles  
 NURS 760R - FNP Geriatric and Chronic Illness

Certificate Requirements

Completion of a minimum of 25 credit hours with a minimum GPA of 3.00.

### **Plan Certificate Completion Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

## **Advanced Graduate Certificate in Nursing Education**

### **Plan Description**

Individuals who already hold a master's degree in nursing and meet the admission qualifications, may take courses leading to the Nursing Education Post-Masters Certificate. Admitted students take courses as a non-degree student and are awarded a certificate documenting completion of the required course work. The Nursing Education Post-Masters Certificate prepares individuals for teaching positions within a program of nursing or a nurse educator position in a clinical setting. Additional courses beyond the minimum courses needed for the certificate program may be required if the applicants earned M.S. in Nursing lack courses required by the UNLV School of Nursing.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Students must apply and submit all admission materials via the ApplyYourself system available through the Graduate College. The following items are required:

1. Transcripts of all course work for both baccalaureate and masters degrees must be sent to the School of Nursing and Graduate College. Transcripts must show coursework in Advanced Physical Assessment, Advanced Pathophysiology, and Advanced Pharmacology. Additionally, if unofficial transcripts are available to the student, please upload to the Apply Yourself application. Nursing course work must have been completed at a nursing program accredited by the National League for Nursing Accrediting Commission or

Commission on Collegiate Nursing Education.

2. Two letters of recommendation from either instructors or employers that speak to the applicant's potential to complete the Post-Master's FNP Certificate Program.
3. Statement of 300 words describing the students' professional goals and reason for seeking a nurse practitioner certificate.
4. Current resume or vita.
5. Current valid RN license in state of residence.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 12

Course Requirements

#### **Required Courses – Credits: 12**

NURS 709 - Teaching and Learning in Nursing Education  
NURS 710 - Course Level Evaluation Strategies for Nurse Educators  
NURS 710 - Course Level Evaluation Strategies for Nurse Educators  
NURS 724 - Developing & Evaluating Curriculum for Nursing Education  
NURS 733 - Nursing Education Practicum I

Certificate Requirements

Completion of a minimum of 12 credit hours with a minimum GPA of 3.00.

### **Plan Certificate Completion Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.

## **Advanced Graduate Certificate in Pediatric Nurse Practitioner**

### **Plan Description**

Individuals who already have a master's degree in nursing, and meet the admission qualifications will be allowed to take courses as a non-degree student. No degree will be awarded, but a certificate documenting completion of the course work will be provided and transcripts showing completion of the courses will be available. Each individual applicant will be evaluated to determine the courses required in order to complete the specific certificate program. Additional courses beyond the minimum courses needed for the certificate program may be required if the applicant's earned MS in nursing lack courses required by the UNLV School of Nursing.

This pediatric nurse practitioner (PNP) post-master's certificate program will allow those who already hold a master's degree in nursing to return to UNLV to obtain specialization as a pediatric nurse practitioner.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

1. Completed online Graduate College application.
2. Two copies of official transcripts of all course work taken for both baccalaureate and master's degrees sent directly from the granting institutions to the School of Nursing (SON) and to the Graduate College.
3. Upload into the online application:
  1. Two letters of recommendation.
  2. 300 word statement of goals and reasons for seeking a PNP post-master's certificate.
  3. Current resume or vitae.

4. Current valid Nevada RN license or eligibility to obtain a Nevada RN license.
5. Health and malpractice insurance, Hepatitis B vaccination, negative drug screen, background check & a current BLS certificate.
4. Students are expected to have basic computer skills, including word processing.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 34

Course Requirements

### **Required Courses – Credits: 34**

NURS 702 - Diagnostic Reasoning and Clinical Decision Making for the PNP  
 NURS 703 - Advanced Health Assessment  
 NURS 704 - Advanced Pathophysiology and Genetics I  
 NURS 714 - Family Theory and Health Promotion  
 NURS 730 - Advanced Pharmacology and Genetics II  
 NURS 734 - Primary Prevention in Pediatrics: The Well Child & Adolescent  
 NURS 734L - Primary Prevention in Pediatrics: The Well Child & Adolescent Clinical  
 NURS 744 - Primary Care in Pediatrics: Common Problems  
 NURS 744L - Primary Prevention in Pediatrics: Common Problems  
 NURS 752 - Nurse Practitioner Business and Roles  
 NURS 764 - Primary Prevention in Pediatrics: Chronic Illness  
 NURS 764L - Primary Prevention in Pediatrics: Chronic Illness Clinical

### **Certificate Requirements**

Completion of a minimum of 34 credit hours with a minimum GPA of 3.00.

### **Plan Certificate Completion Requirements**

- The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.
- The student must successfully complete the culminating experience.

## Doctor of Nursing Practice

### Plan Description

The Doctor of Nursing Practice (DNP) is a terminal professional practice degree. The goal of the DNP program is to prepare nurses to assume leadership roles in clinical practice, administration, clinical teaching, and clinical research. The DNP differs from the PhD in Nursing or Doctor of Nursing Science degrees, emphasizing advanced clinical practice, implementation of best practices, furthering excellence in nursing (clinical) education and evaluation of practice and care delivery models rather than individually initiated research. The DNP program prepares graduates for advanced clinical practice and leadership roles to serve the health care needs of the people of Nevada, the nation, and the professional community. DNP graduates are equipped to assume a wide range of leadership roles in both direct and indirect health care settings and nursing education programs. DNP graduates may function as specialists in their advanced practice clinical roles, nursing faculty, or as healthcare executives, program and policy analysts.

### DNP Program Objectives:

The goal of the DNP degree is to prepare nurses to assume leadership roles in clinical practice, clinical teaching, and health care analysis. At the conclusion of the University of Nevada DNP program, graduates will:

1. Provide advanced nursing care to improve patient and population health care outcomes in various direct and indirect settings.
2. Take leadership roles in the analysis, delivery and management of nursing care and health care systems.
3. Provide evidence-based practice through the application of analytical methods, information systems technology, and clinical research.
4. Collaborate with interprofessional teams to meet the healthcare needs of culturally and ethnically diverse individuals and populations.
5. Act as change agent, leader, and advocate in the design, implementation, and evaluation

of health care policy as it affects populations and the nursing profession.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

#### *Post-Masters Tracks:*

Applications available on the UNLV Graduate College website.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements .

#### Nurse Practitioner Track:

1. Hold a baccalaureate in nursing from an accredited NLNAC or CCNE nursing program.
2. Hold a master's degree in nursing (MSN or MN). Exceptions to this will be made on a case-by-case basis and only for those students who hold a Bachelor of Science in Nursing with a master's degree in another health-related field (e.g., MPH, MHA, etc.). Coursework from non-nursing master's degree must have significant content from nursing or a nursing focus. At a minimum, graduate level coursework must demonstrate a substantial study of Nursing Theory, Research, and Health Policy.
3. Have completed graduate-level course work with a grade of B or better in advanced pathophysiology, pharmacology, physical assessment, nursing theory, research, and healthcare policy.
4. Have a cumulative grade point average (GPA) of 3.5 or higher at the graduate level.
5. Have completed graduate-level course work with a grade of B or better in nursing theory, research and healthcare policy.
6. Hold an unencumbered license as a registered nurse and as an advanced practice nurse commensurate with state licensure.

7. Hold national certification in an advanced practice role from a nationally recognized certification/credentialing organization.

Academic Leadership Track:

1. Hold a baccalaureate in nursing from an accredited NLNAC or CCNE nursing program.
2. Students must hold a master's degree in nursing (MSN or MN). Exceptions to this will be made on a case-by-case basis and only for those students who hold a Bachelor of Science in Nursing with a master's degree in another health-related field (i.e. MBA, MHA, MPH etc.). Coursework from non-nursing master's degree must have significant content from nursing or a nursing focus. At a minimum, graduate level coursework must demonstrate a substantial study of Nursing Theory, Research, and Health Policy.
3. Have a cumulative grade point average (GPA) of 3.5 or higher at the graduate level.
4. Have completed graduate-level course work with a grade of B or better in nursing theory, research and healthcare policy.
5. Hold an unencumbered license as a registered nurse.
6. Hold national certification (or eligible for certification) in an advanced practice role or an area of specialization or expertise.
7. Provide documentation of at least 500 hours of practice in a leadership role from educational experience, practice experience or equivalent course work in the area of administration (e.g., MBA, MHA, MPH, etc. or education).

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

*BSN to DNP Tracks:*

Applications available on the UNLV Graduate College website.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements .

Nurse Practitioner and Academic Leadership Tracks:

1. Hold a baccalaureate in nursing from an accredited NLNAC or CCNE nursing program.
2. Have a cumulative grade point average (GPA) of 3.2 or higher (on a 4.0 scale) in the baccalaureate in nursing degree.
3. Hold an unencumbered license as a registered nurse.
4. Have practiced as a baccalaureate prepared registered nurse for a minimum of one calendar year prior to beginning coursework in the BSN to DNP program.
5. Interviews may be required.

**Plan Requirements**

*See Subplan Requirements below.*

**Subplan 1 Requirements: Post-Masters Nurse Practitioner Track**

Total Credits Required: 31

Course Requirements

**Required Courses – Credits: 25**

NURS 708 - Analysis and Economics of Healthcare Systems and Delivery

NURS 712 - Strategies for Management of Healthcare Systems and Performance Improvement

NURS 715 - Business Management for Nurse Practitioners

NURS 716 - Population Health: Analysis and Evaluation

NURS 719R - Health & Public Policy for Advanced Practice of Nursing

NURS 729R - Translational Evidence for Healthcare Systems

NURS 765 - DNP Residency

NURS 767 - Collaboration, Communication & Negotiation for the Nurse Leader

NURS 768 - DNP Forum & Role Transformation

## DNP Project – Credits: 6

### NURS 788 - DNP Project

#### Degree Requirements

1. Complete 31 credits with a minimum GPA of 3.00.
2. Maintain a cumulative grade point average of 3.00 or above each semester enrolled.
3. Receive a grade of "B" (3.00) or above in all required cognate and nursing courses. If less than a "B", for example a B- (2.7) is earned, the course must be repeated. The student must be in good standing to repeat a course and any required course may be repeated only one time.
4. A student may register for a course only two times. A student who has registered for the same course twice and has withdrawn or received a grade less than "B" is ineligible for readmission unless approved by the Graduate College.
5. If a student fails two courses or has withdrawn from two courses or received a grade less than "B" in two courses he/she is ineligible for readmission unless approved by the Graduate College.
6. Complete a minimum of six (6) semester hours in each calendar year.
7. Each student, upon admission, will be assigned an advisor. The advisor (and later the Advisory Committee including the chair of the Advisory committee if in place) will plan the student's entire degree program of study and submit it to the Graduate College by the end of the second semester of enrollment. The degree program requires the approvals of the student, advisor, and the DNP Coordinator, the appropriate academic dean, and the Graduate Dean.
8. The Advisor monitors the student's progress through the program of study. In addition, the DNP Coordinator will monitor the student's progress, including adherence to all established policies of the Graduate College. At any given time, the student can request a change of advisor or chair of Advisory Committee. However, it is the student's

responsibility to secure approval of an individual faculty member who agrees to serve as his or her advisor before changing the original advisor, subject to Graduate College approval. Also, it is the student's responsibility to make sure that his or her chosen advisor or chair has current full graduate faculty status at UNLV, which can be checked at:

<http://graduatecollege.unlv.edu/facstaff/status.html>.

9. Students will select a chair for their DNP Project committee in the first semester and be required to file the Committee Appointment Form with the DNP coordinator when this is completed. More specific information about the DNP Project will be discussed in the courses it is embedded in the program.
10. In consultation with his/her advisor, a student will organize an advisory committee of at least two departmental members. In addition, a third member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
11. Continuously register for three (3) semester hours of credit each semester while working on a DNP Project.
12. Once admitted to the DNP program, students will need to continue to take a minimum of 3 credits per semester for both fall and spring semesters to maintain their place in the program until graduation. A leave of absence may be requested by students. The DNP Project is a culmination project based on guidelines from the American Association of Colleges of Nursing (AACN) DNP essentials. This is a project completed over three semesters in the program.
13. Students in the DNP program are required to abide by the policies for UNLV School of Nursing. Students in the DNP program are also required to abide by the policies of the UNLV Graduate College.

## Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 2 Requirements:BSN to DNP Nurse Practitioner Track**

Total Credits Required: 68

#### Course Requirements

#### **Required Courses – Credits: 62**

NURS 701 - Diagnostic Reasoning and Clinical Decision Making for the FNP  
NURS 702 - Diagnostic Reasoning and Clinical Decision Making for the PNP  
NURS 703 - Advanced Health Assessment  
NURS 704 - Advanced Pathophysiology and Genetics I  
NURS 706 - Nursing Theory and Research  
NURS 708 - Analysis and Economics of Healthcare Systems and Delivery  
NURS 711 - Informatics and Quality Improvement  
NURS 712 - Strategies for Management of Healthcare Systems and Performance Improvement  
NURS 714 - Family Theory and Health Promotion  
NURS 715 - Business Management for Nurse Practitioners  
NURS 716 - Population Health: Analysis and Evaluation  
NURS 719R - Health & Public Policy for Advanced Practice of Nursing  
NURS 729R - Translational Evidence for Healthcare Systems  
NURS 730 - Advanced Pharmacology and Genetics II  
NURS 734 - Primary Prevention in Pediatrics: The Well Child & Adolescent  
NURS 740R - FNP Adult and Women's Health  
NURS 744 - Primary Care in Pediatrics: Common Problems  
NURS 750R - FNP Children and OB  
NURS 760R - FNP Geriatric and Chronic Illness  
NURS 764 - Primary Prevention in Pediatrics: Chronic Illness  
NURS 765 - DNP Residency  
NURS 768 - DNP Forum & Role Transformation

#### **DNP Project – Credits: 6**

## NURS 788 - DNP Project

Students who wish to step out of the DNP program and receive a master's degree will be required to complete NURS 761. Clinical Synthesis and some courses identified above as required will not be completed.

#### Degree Requirements

1. Complete 68 credits with a minimum Grade Point Average (GPA) of 3.00.
2. Maintain a cumulative grade point average of 3.00 or above each semester enrolled.
3. Receive a grade of "B" (3.00) or above in all required cognate and nursing courses. If less than a "B", for example a B- (2.7) is earned, the course must be repeated. The student must be in good standing to repeat a course and any required course may be repeated only one time.
4. A student may register for a course only two times. A student who has registered for the same course twice and has withdrawn or received a grade less than "B" is ineligible for readmission unless approved by the Graduate College.
5. If a student fails two courses or has withdrawn from two courses or received a grade less than "B" in two courses he/she is ineligible for readmission unless approved by the Graduate College.
6. Complete a minimum of six (6) semester hours in each calendar year.
7. Each student, upon admission, will be assigned an advisor. The advisor (and later the Advisory Committee including the chair of the Advisory committee if in place) will plan the student's entire degree program of study and submit it to the Graduate College by the end of the second semester of enrollment. The degree program requires the approvals of the student, advisor, and the DNP Coordinator, the appropriate academic dean, and the Graduate Dean.
8. The Advisor monitors the student's progress through the program of study. In addition, the DNP Coordinator will monitor the student's progress, including adherence to all

established policies of the Graduate College. At any given time, the student can request a change of advisor or chair of Advisory Committee. However, it is the student's responsibility to secure approval of an individual faculty member who agrees to serve as his or her advisor before changing the original advisor, subject to Graduate College approval. Also, it is the student's responsibility to make sure that his or her chosen advisor or chair has current full graduate faculty status at UNLV, which can be checked at:

<http://graduatecollege.unlv.edu/facstaff/status.html>.

9. Students will select a chair for their DNP Project committee in the first semester and be required to file the Committee Appointment Form with the DNP coordinator when this is completed. More specific information about the DNP Project will be discussed in the courses it is embedded in the program.
10. In consultation with his/her advisor, a student will organize an advisory committee of at least two departmental members. In addition, a third member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
11. Continuously register for three (3) semester hours of credit each semester while working on a DNP Project.
12. Once admitted to the DNP program, students will need to continue to take a minimum of 3 credits per semester for both fall and spring semesters to maintain their place in the program until graduation. A leave of absence may be requested by students.
13. The DNP Project is a culmination project based on guidelines from the American Association of Colleges of Nursing (AACN) DNP essentials. This is a project completed over three semesters in the program.

14. Students in the DNP program are required to abide by the policies for UNLV School of Nursing. Students in the DNP program are also required to abide by the policies of the UNLV Graduate College.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 3 Requirements: Academic Leadership Track**

Total Credits Required: 33

#### Course Requirements

#### **Required Courses – Credits: 27**

NURS 708 - Analysis and Economics of Healthcare Systems and Delivery  
NURS 717 - The Accreditation Process  
NURS 718 - Organizational Management for the Advanced Practice Nurse  
NURS 719R - Health & Public Policy for Advanced Practice of Nursing  
NURS 721 - Principles and Strategies for Clinical Supervision in Nursing  
NURS 729R - Translational Evidence for Healthcare Systems  
NURS 765 - DNP Residency  
NURS 767 - Collaboration, Communication & Negotiation for the Nurse Leader  
NURS 768 - DNP Forum & Role Transformation  
NURS 772 - The Nurse as Leader

#### **DNP Project – Credits: 6**

NURS 788 - DNP Project

#### Degree Requirements

1. Complete 33 credits with a minimum GPA of 3.00.
2. Maintain a cumulative grade point average of 3.00 or above each semester enrolled.
3. Receive a grade of "B" (3.00) or above in all required cognate and nursing courses. If less than a "B", for example a B- (2.7) is earned, the course must be repeated. The student must be in good standing to repeat a course



and any required course may be repeated only one time.

4. A student may register for a course only two times. A student who has registered for the same course twice and has withdrawn or received a grade less than "B" is ineligible for readmission unless approved by the Graduate College.
5. If a student fails two courses or has withdrawn from two courses or received a grade less than "B" in two courses he/she is ineligible for readmission unless approved by the Graduate College.
6. Complete a minimum of six (6) semester hours in each calendar year.
7. Each student, upon admission, will be assigned an advisor. The advisor (and later the Advisory Committee including the chair of the Advisory committee if in place) will plan the student's entire degree program of study and submit it to the Graduate College by the end of the second semester of enrollment. The degree program requires the approvals of the student, advisor, and the DNP Coordinator, the appropriate academic dean, and the Graduate Dean.
8. The Advisor monitors the student's progress through the program of study. In addition, the DNP Coordinator will monitor the student's progress, including adherence to all established policies of the Graduate College. At any given time, the student can request a change of advisor or chair of Advisory Committee. However, it is the student's responsibility to secure approval of an individual faculty member who agrees to serve as his or her advisor before changing the original advisor, subject to Graduate College approval. Also, it is the student's responsibility to make sure that his or her chosen advisor or chair has current full graduate faculty status at UNLV, which can be checked at:  
<http://graduatecollege.unlv.edu/facstaff/status.html>.
9. Students will select a chair for their DNP Project committee in the first semester and be required to file the Committee Appointment Form with the DNP

coordinator when this is completed. More specific information about the DNP Project will be discussed in the courses it is embedded in the program.

10. In consultation with his/her advisor, a student will organize an advisory committee of at least two departmental members. In addition, a third member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
11. Continuously register for three (3) semester hours of credit each semester while working on a DNP Project.
12. Once admitted, students will need to continue to take a minimum of 3 credits per semester for both fall and spring semesters to maintain their place in the program until graduation. A leave of absence may be requested by students. The DNP Project is a culmination project based on guidelines from the American Association of Colleges of Nursing (AACN) DNP essentials. This is a project completed over 3 semesters in the program.
13. Students in the DNP program are required to abide by the policies for UNLV School of Nursing and are also required to abide by the policies of the UNLV Graduate College and University.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 4 Requirements: BSN to DNP Academic Leadership Track**

Total Credits Required: 60

#### Course Requirements

#### **Required Courses – Credits: 54**

NURS 703 - Advanced Health Assessment  
NURS 704 - Advanced Pathophysiology and Genetics I

NURS 706 - Nursing Theory and Research  
 NURS 708 - Analysis and Economics of Healthcare Systems and Delivery  
 NURS 709 - Teaching and Learning in Nursing Education  
 NURS 710 - Course Level Evaluation Strategies for Nurse Educators  
 NURS 711 - Informatics and Quality Improvement  
 NURS 717 - The Accreditation Process  
 NURS 718 - Organizational Management for the Advanced Practice Nurse  
 NURS 719R - Health & Public Policy for Advanced Practice of Nursing  
 NURS 721 - Principles and Strategies for Clinical Supervision in Nursing  
 NURS 724 - Developing & Evaluating Curriculum for Nursing Education  
 NURS 729R - Translational Evidence for Healthcare Systems  
 NURS 730 - Advanced Pharmacology and Genetics II  
 NURS 733 - Nursing Education Practicum I  
 NURS 765 - DNP Residency  
 NURS 767 - Collaboration, Communication & Negotiation for the Nurse Leader  
 NURS 768 - DNP Forum & Role Transformation  
 NURS 772 - The Nurse as Leader

**DNP Project – Credits: 6**

NURS 788 - DNP Project

Students who wish to step out of the DNP program and receive a master's degree will be required to complete NURS 743, Nursing Education Practicum II and NURS 753, Scholarly Project.

**Degree Requirements**

1. Complete 60 credits with a minimum Grade Point Average (GPA) of 3.00.
2. Maintain a cumulative grade point average of 3.00 or above each semester enrolled.
3. Receive a grade of "B" (3.00) or above in all required cognate and nursing courses. If less than a "B", for example a B- (2.7) is earned, the course must be repeated. The student must be in good standing to repeat a course and any required course may be repeated only one time.

4. A student may register for a course only two times. A student who has registered for the same course twice and has withdrawn or received a grade less than "B" is ineligible for readmission unless approved by the Graduate College.
5. If a student fails two courses or has withdrawn from two courses or received a grade less than "B" in two courses he/she is ineligible for readmission unless approved by the Graduate College.
6. Complete a minimum of six (6) semester hours in each calendar year.
7. Each student, upon admission, will be assigned an advisor. The advisor (and later the Advisory Committee including the chair of the Advisory committee if in place) will plan the student's entire degree program of study and submit it to the Graduate College by the end of the second semester of enrollment. The degree program requires the approvals of the student, advisor, and the DNP Coordinator, the appropriate academic dean, and the Graduate Dean.
8. The Advisor monitors the student's progress through the program of study. In addition, the DNP Coordinator will monitor the student's progress, including adherence to all established policies of the Graduate College. At any given time, the student can request a change of advisor or chair of Advisory Committee. However, it is the student's responsibility to secure approval of an individual faculty member who agrees to serve as his or her advisor before changing the original advisor, subject to Graduate College approval. Also, it is the student's responsibility to make sure that his or her chosen advisor or chair has current full graduate faculty status at UNLV, which can be checked at: <http://graduatecollege.unlv.edu/facstaff/status.html>.
9. Students will select a chair for their DNP Project committee in the first semester and be required to file the Committee Appointment Form with the DNP coordinator when this is completed. More specific information about the DNP Project

will be discussed in the courses it is embedded in the program.

electronic version to ProQuest by the posted deadline.

10. In consultation with his/her advisor, a student will organize an advisory committee of at least two departmental members. In addition, a third member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
11. Continuously register for three (3) semester hours of credit each semester while working on a DNP Project.
12. Once admitted to the DNP program, students will need to continue to take a minimum of 3 credits per semester for both fall and spring semesters to maintain their place in the program until graduation. A leave of absence may be requested by students.
13. The DNP Project is a culmination project based on guidelines from the American Association of Colleges of Nursing (AACN) DNP essentials. This is a project completed over three semesters in the program.
14. Students in the DNP program are required to abide by the policies for UNLV School of Nursing. Students in the DNP program are also required to abide by the policies of the UNLV Graduate College.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Plan Graduation Requirements**

1. Submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her DNP Project by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy project to the Graduate College, and submit the approved

## Doctor of Philosophy - Nursing

### Plan Description

Individuals who complete the Ph.D. in Nursing Program will be prepared for roles as leader, scholar/researcher, and educator in academia, the health care industry, or government and private organizations focused on health care. Graduates will demonstrate the following program outcomes:

1. Provide leadership in the advancement of nursing as a scientific and practice discipline through the conduct of culturally competent scholarship and identification of implications for policy, the discipline, and the profession.
2. Conduct and communicate original research that generates new knowledge.
3. Develop, implement and evaluate innovative approaches to teaching and learning.

### Course Offerings

Doctoral courses offered by the School of Nursing are web-based. However, students are required to be on campus three days at the beginning of the first semester of enrollment. These meeting times and dates are set in advance to allow students adequate time to plan their schedules and most likely occur on Friday and/or Saturday. Students are also required to be on campus for their oral comprehensive exams, proposal defense, and final dissertation defense.

### Programs of Study

There are three options in the current Ph.D. in Nursing Program: Nursing Education Track, Sustainable Health Track, and the Post-D.N.P. to Ph.D. Track. The UNLV School of Nursing (SON) Ph.D. in Nursing Curriculum Framework outlines the shared required core courses in the Ph.D. Nursing Program.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

Learning outcomes for specific subplan tracks can be found below:

- Doctor of Philosophy - Nursing; Nursing Education
- Doctor of Philosophy - Nursing; Post Doctor of Nursing Practice

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. Admission into the nursing doctoral program is contingent upon the qualifications of the applicant and the availability of open positions. Students are admitted once a year in the fall. Applicants must have submitted all required materials by the deadline posted on the School of Nursing website.
2. For the Post-D.N.P. to Ph.D. Track an earned Doctorate in Nursing Practice degree from a program accredited by the National League for Nursing Accrediting Commission or the Commission on Collegiate Nursing Education is required. In addition to the required courses below, students must have 17 units from an accredited DNP program.
3. Earned master's degrees in nursing (MSN) from programs accredited by the National League for Nursing Accrediting Commission or the Commission on Collegiate Nursing Education; persons educated outside the United States need to demonstrate proof of equivalent education and advanced degrees.
4. Persons holding a bachelor's degree in nursing and master's degree in a health-related discipline from an accredited institution are eligible for admission but will need to successfully complete the following courses, or their equivalents, from the MSN program prior to taking doctoral courses:
  1. NURS 705 or NURS 755
  2. NURS 706
  3. NURS 707
  4. NURS 713
5. A minimal grade point average of 3.5 (4.0 = A) earned in a nursing or health-related master's program of study.

6. Successful completion of graduate course work in statistics and research with a B or better prior to admission.
7. Licensed as a Registered Nurse in at least one state or territory of the US.
8. Applicants must present GRE scores on verbal, quantitative and analytic measures. The exam must have been taken within the last five years.
9. Three letters of recommendation are required from individuals who can evaluate the applicant's motivation, academic capability, scholarship potential, and personal integrity for doctoral study in nursing.
10. Evidence of current health and malpractice insurance. Accepted applicants must, prior to enrollment, show proof of completion of the Hepatitis B vaccine series, a titer indicating presumptive immunity, or a statement from a health care provider indicating that vaccination is contraindicated for health reasons and validation of a negative drug screen. Other immunization and health data requirements are identified in the student handbook.
11. Applicants must submit the following written materials for review:
  1. Two representative samples of scholarly work (e.g., thesis, demonstration project, publications, etc.).
  2. Written statement of personal career, educational and scholarship goals including identification of research interests. The applicant's research interests must be within the realm of our faculty expertise in order to pursue a doctoral degree in this program.
  3. Curriculum Vita or resume.
12. Applicants are required to participate in an interview with members of the Admissions Committee, either in person or by telephone.
13. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below*

### **Subplan 1 Requirements: Nursing Education Track**

Total Credits Required: 62

Course Requirements

#### **Core Courses – Credits: 32**

NURS 709 - Teaching and Learning in Nursing Education  
 NURS 770 - Knowledge Development in Nursing  
 NURS 771 - Theory Development in Nursing  
 NURS 772 - The Nurse as Leader  
 NURS 775 - Statistical Methods for Nursing Research I: Univariate Methods  
 NURS 776 - Statistical Methods for Nursing Research II: Multivariate Methods  
 NURS 779 - Writing a Research Grant Application  
 NURS 780 - Quantitative Methods in Nursing  
 NURS 781 - Qualitative Research Methods in Nursing  
 NURS 785 - Special Topics in Nursing Research  
 NURS 789 - Independent Study

#### **Nursing Education Courses – Credits: 18**

NURS 710 - Course Level Evaluation Strategies for Nurse Educators  
 NURS 724 - Developing & Evaluating Curriculum for Nursing Education  
 NURS 733 - Nursing Education Practicum I  
 NURS 774 - Educational Theory and Philosophy for Nursing  
 NURS 790 - Independent Teaching Practicum Seminar  
 NURS 791 - Independent Teaching Practicum

#### **Dissertation – Credits: 12**

NURS 797 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 2 Requirements: Sustainable Health Track**

Total Credits Required: 62

Course Requirements

#### **Core Courses – Credits: 32**

NURS 709 - Teaching and Learning in Nursing Education  
NURS 770 - Knowledge Development in Nursing  
NURS 771 - Theory Development in Nursing  
NURS 772 - The Nurse as Leader  
NURS 775 - Statistical Methods for Nursing Research I: Univariate Methods  
NURS 776 - Statistical Methods for Nursing Research II: Multivariate Methods  
NURS 779 - Writing a Research Grant Application  
NURS 780 - Quantitative Methods in Nursing  
NURS 781 - Qualitative Research Methods in Nursing  
NURS 785 - Special Topics in Nursing Research  
NURS 789 - Independent Study

#### **Sustainable Health Courses – Credits: 18**

NURS 778 - Geographic Information Systems for Health  
NURS 782 - Sustainable Health: Clinical Perspectives  
NURS 783 - Economics of Sustaining Health  
NURS 784 - Sustainable Health and Public Policy  
NURS 777 - Individualized Study/Dissertation Seminar

#### **Dissertation – Credits: 12**

NURS 797 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 3 Requirements: Post-D.N.P. to Ph.D. Track**

Total Credits Required: 45

Course Requirements

#### **Core Courses – Credits: 33**

NURS 770 - Knowledge Development in Nursing  
NURS 771 - Theory Development in Nursing  
NURS 775 - Statistical Methods for Nursing Research I: Univariate Methods  
NURS 776 - Statistical Methods for Nursing Research II: Multivariate Methods  
NURS 779 - Writing a Research Grant Application  
NURS 780 - Quantitative Methods in Nursing  
NURS 781 - Qualitative Research Methods in Nursing  
NURS 785 - Special Topics in Nursing Research  
NURS 789 - Independent Study

#### **Dissertation – Credits: 12**

NURS 797 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Degree Requirements**

1. Complete the minimum credits required.
2. Upon approval of the Graduate Coordinator, students in the Nursing Education Track who completed NURS 709, 710, 724, and 733 or equivalent course work during either their masters' or postmasters' education are required to complete a minimum of 50 credits of required course work.

3. A grade point average of 3.0 must be maintained in all courses required for the degree; no grade less than B is acceptable for curricular completion of the program.
4. Upon admission, each student will be assigned to the Ph.D. coordinator as their initial academic advisor who will plan the student's entire program of study. Approved courses will include those taught in other disciplines but must relate to the student's area of research.
5. After the student has selected a research topic, the student will select an advisor based on research focus and needs. Upon student recommendation, faculty acceptance, and approval from both the Ph.D. Coordinator and the Graduate College, the advisor will be changed.
6. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
7. Upon completion of all required course work other than dissertation and research seminar, each student must take a written Comprehensive Examination that will assess a doctoral student's readiness to begin the doctoral dissertation. Specifically, the examination will evaluate a student's written and oral articulation of a possible dissertation research focus or problem. Upon successful completion of the comprehensive exam, the student achieves candidacy and may register for dissertation credits and begin dissertation proposal development followed by independent dissertation study.
  - a. Students who do not successfully complete the exam will be placed on academic probation.
  - b. Failure to successfully complete the exam or meet the requirements of academic probation will result in separation.
8. Upon successfully completing the comprehensive examination and proposal defense, the student submits a dissertation prospectus to his/her committee for approval. After approval, the student submits a "Prospectus Approval Form" to the Graduate College. The student's major advisor and dissertation committee are responsible for the student's progression through the dissertation.
9. Upon completion of the dissertation, the student must pass a final oral examination which involves the successful defense of the dissertation study. All dissertation committee members must be present for this examination and may question the student following presentation of the study. The defense will be scheduled and conducted in accordance with the Graduate College's policies for dissertation completion.

#### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Master of Science - Nursing

### Plan Description

The M.S.N. program currently offers two tracks: the Family Nurse Practitioner (NP) Track and the Nurse Educator (NE) Track. The role of the nurse practitioner (NP) is that of direct care provider. NPs practice in clinics, long-term care facilities, hospitals, physician offices, managed care corporations and private industries. NPs perform health histories and physical examinations, order and interpret diagnostic tests, diagnose and manage acute and chronic diseases, prescribe medication and treatments, provide patient and family counseling and education regarding lifestyle behaviors and self-care skills and participate in research projects and integrate research findings. The NP blends some aspects of medicine with nursing, using a nursing perspective. When required by state law, as it is in Nevada, NPs have collaborative relationships with physicians. Credentialing examinations, designed by specialty area, are available and required prior to practice in most states. The nurse practitioner track offers courses with the option for full-time and part-time study.

The nurse educator track prepares the graduate for a faculty position within a program of nursing or a nurse educator position in a clinical setting. The student will increase mastery related to teaching and learning and evaluation strategies, curriculum design, and the use of educational technologies. Via directed study and mentorship with experienced faculty, students will enhance clinical expertise in a selected specialty area. Graduate students will have the opportunity to supervise basic nursing students in clinical practice areas and/or work with nurse educators in clinical settings in the preparation, delivery and evaluation of educational programs for nurses. The nurse educator track is a year round program featuring full time and part time options for program completion.

### Program Outcomes of the Master of Science Degree

Upon completion of the program the graduate will complete the following core outcomes:

1. Evaluate the principles, personal values, and beliefs that influence ethical decision making, which provides a framework for nursing practice.
2. Communicate effectively as a health care professional, creating collaborative interdependent relationships and act as advocates for the nursing profession and client population.
3. Incorporate nursing theory and evidence based practice in advanced nursing roles.
4. Understand the influences of human diversity and social issues in providing culturally sensitive health promotion and disease prevention strategies in a global society.
5. Assume a leadership role in the management of human, fiscal and physical health care resources to improve nursing practice and health care delivery.

### Program Outcomes: Nurse Practitioner Track

1. Competently assess, diagnose, prescribe, evaluate and create a holistic plan of treatment.
2. Articulate the professional role, which includes the ethical code of conduct and scope of advanced practice.
3. Develop and monitor comprehensive, holistic plans of care that address the health promotion and disease prevention needs of diverse client populations.
4. Assess and monitor teaching/learning needs in a diverse client population. Practice ethically in the conduct of research, management and clinical professional practice.

### Program Outcomes: Nurse Educator Track

1. Utilize education research to continually improve teaching strategies/skills.
2. Develop a teaching-learning style that facilitates learner development that meets the educational outcomes of the learner.
3. Assess and evaluate at both the course and program level
4. Function as a leader and change agent in nursing education settings.



5. Participate in scholarship to further knowledge and abilities in nursing education.

### **Master of Science in Nursing**

- *Family Nurse Practitioner*
- *Nurse Educator*
- *Pediatric Nurse Practitioner*

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Students are admitted to the program in the fall semester of each year based upon competitive selection. Students may enroll in selected (NURS 705, 706, and 713) classes as a non-degree student, but no more than seven credits of course work as a non-degree student will be accepted toward the degree.

Students make simultaneous application to the Graduate College and the School of Nursing.

1. Cumulative Grade Point Average (GPA) of 3.00 or a GPA of 3.00 in the last two years of undergraduate work. (Submit one copy of official transcripts from all previous college and professional schools to the Graduate College and one copy to the School of Nursing). The undergraduate nursing course work must have been completed at a nursing program accredited by the National League for Nursing Accrediting Commission or Commission on Collegiate Nursing Education.
2. Completion of undergraduate courses in nursing research, physical assessment (as currently taught in the undergraduate program of nursing at UNLV), and a course in introductory statistics. All prerequisite courses must be completed with a grade of C (2.00) or better. It is expected that students possess basic computer word processing

skills. If not, the student should seek that content prior to enrollment.

3. Completion of a graduate level statistics course with a grade of "B" or better within five years prior to matriculation into the MSN program. (Example EPY 721 or KIN 751.)
4. Two letters of recommendation from former instructors or employers that speak to the applicant's potential to complete the graduate program must be submitted to the school. The evaluators should speak to the student's professional nursing competency, including application of theory, quality of patient care, independent judgment when appropriate; relationship with team members such as nurses, physicians, and others; leadership skills; and personal responsibility and accountability.
5. A current resumé or curriculum vita.
6. Current valid RN license in state of residence. Students should submit a copy of their Nursing License with the word "copy" printed over the top.
7. Accepted applicants must, prior to enrollment, show evidence of current health and malpractice insurance, proof of completion of the Hepatitis B Vaccine series, or a titer indicating presumptive immunity, proof of varicella or a titer indicating presumptive immunity, or a statement from a health care provider indicating that vaccination is contraindicated for health reasons and validation of a negative drug screen and background check. Other immunization and health data requirements are identified in the student handbook.
8. A statement of approximately 300 words describing the student's professional goals and reason for seeking graduate education.
9. Students seeking admission to the FNP track must submit a resume or vita that demonstrates a minimum of one year clinical experience as a registered nurse.
10. Students seeking admission into the Nursing Education Pathway are required to have completed one year of clinical practice prior

to enrollment in the first nursing education practicum course (NURS 733 ).

11. Selection into one of the approved pathways is based upon the applicant's qualifications (academic and professional), applicant's strengths as compared to other applicants, and upon the number of available openings.
12. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Family Nurse Practitioner Track**

Total Credits Required: 46

Course Requirements

#### **MSN Core – Credits: 18**

NURS 703 - Advanced Health Assessment  
NURS 704 - Advanced Pathophysiology and Genetics I  
NURS 706 - Nursing Theory and Research  
NURS 711 - Informatics and Quality Improvement  
NURS 713 - Health Policy and Population Health  
NURS 730 - Advanced Pharmacology and Genetics II

#### **MSN FNP Required Courses – Credits: 25**

NURS 701 - Diagnostic Reasoning and Clinical Decision Making for the FNP  
NURS 714 - Family Theory and Health Promotion  
NURS 740R - FNP Adult and Women's Health  
NURS 750R - FNP Children and OB  
NURS 752 - Nurse Practitioner Business and Roles  
NURS 760R - FNP Geriatric and Chronic Illness

#### **Culminating Experience - Credits: 3**

### **NURS 761 - Clinical Synthesis**

#### **Degree Requirements**

1. Maintain a cumulative grade point average of 3.00 or above each semester enrolled.
2. Receive a grade of B (3.00) or above in all required cognate and nursing courses. If less than a B, for example a B- (2.70), is earned, the course must be repeated. The student must be in good standing to repeat a course and any required course may be repeated only one time.
3. A student may register for a course only two times. A student who has registered for the same course twice and has withdrawn or received a grade less than B is ineligible for readmission unless approved by the UNLV Graduate College.
4. If a student fails two courses or has withdrawn from two courses or received a grade less than B in two courses he/she is ineligible for readmission unless approved by the Graduate College.
5. Complete a minimum of six semester hours in each calendar year.
6. Continuously register for a minimum of three (3) semester hours of credit each semester while working on the thesis or capstone project.
7. In order to maintain clinical competency the FNP student must continuously register for at least three (3) semester hours of NURS 773 (clinical practicum) each semester while working on the thesis or capstone project if all required clinical courses are complete.
8. Residency Credits: No more than three courses (maximum 7 credits) may be transferred into the program. The MSN Coordinator and the Graduate College must approve transfer credit.
9. Credit by Challenge Examination: Graduate courses with a 700 number or above may not be challenged for credit.
10. Six-Year Completion Rule: All degree requirements must be completed within six calendar years from the date of matriculation. No credit may be used in an advanced degree program for course work

completed more than six calendar years immediately preceding the term in which all degree requirements are completed.

11. Graduation Requirements: Students have a choice of the catalog under which they wish to graduate. They may choose between: 1) the year of official matriculation, or 2) the year of graduation. Students are encouraged to meet the requirements of the current catalog.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Comprehensive Examination: Students in all tracks will be formally evaluated by an Examination Committee for their thesis or capstone project. (More detailed information is provided in the MSN Handbook.)
3. Complete a thesis or capstone project.
4. If completing a thesis:
  1. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
  2. The student must submit his/her approved, properly formatted thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 2 Requirements: Nursing Education Track**

Total Credits Required: 33

#### Course Requirements

##### **MSN Core – Credits: 18**

NURS 703 - Advanced Health Assessment  
NURS 704 - Advanced Pathophysiology and Genetics I  
NURS 706 - Nursing Theory and Research  
NURS 711 - Informatics and Quality Improvement

NURS 713 - Health Policy and Population Health  
NURS 730 - Advanced Pharmacology and Genetics II

##### **MSN EDU Required Courses – Credits: 14**

NURS 709 - Teaching and Learning in Nursing Education  
NURS 710 - Course Level Evaluation Strategies for Nurse Educators  
NURS 724 - Developing & Evaluating Curriculum for Nursing Education  
NURS 733 - Nursing Education Practicum I  
NURS 743 - Nursing Education Practicum 2

##### **Culminating Experience – Credits: 1**

NURS 753 - Nurse Educator Scholarship Project

#### Degree Requirements

1. Maintain a cumulative grade point average of 3.00 or above each semester enrolled.
2. Receive a grade of B (3.00) or above in all required cognate and nursing courses. If less than a B, for example a B- (2.70), is earned, the course must be repeated. The student must be in good standing to repeat a course and any required course may be repeated only one time.
3. A student may register for a course only two times. A student who has registered for the same course twice and has withdrawn or received a grade less than B is ineligible for readmission unless approved by the UNLV Graduate College.
4. If a student fails two courses or has withdrawn from two courses or received a grade less than B in two courses he/she is ineligible for readmission unless approved by the Graduate College.
5. Complete a minimum of six semester hours in each calendar year.
6. Continuously register for a minimum of three (3) semester hours of credit each semester while working on the thesis, professional paper, or research utilization project.
7. In order to maintain clinical competency the FNP student must continuously register for

at least three (3) semester hours of NURS 773 (clinical practicum) each semester while working on the thesis or capstone project if all required clinical courses are complete

8. Residency Credits: No more than three courses (maximum 7 credits) may be transferred into the program. The MSN Coordinator and the Graduate College must approve transfer credit.
9. Credit by Challenge Examination: Graduate courses with a 700 number or above may not be challenged for credit.
10. Six-Year Completion Rule: All degree requirements must be completed within six calendar years from the date of matriculation. No credit may be used in an advanced degree program for course work completed more than six calendar years immediately preceding the term in which all degree requirements are completed.
11. Graduation Requirements: Students have a choice of the catalog under which they wish to graduate. They may choose between: 1) the year of official matriculation, or 2) the year of graduation. Students are encouraged to meet the requirements of the current catalog.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Comprehensive Examination: Students in all tracks will be formally evaluated by an Examination Committee for their thesis, research utilization project, or professional paper. (More detailed information is provided in the MSN Handbook.)
3. Complete a thesis, research utilization project, or professional paper.
4. If completing a thesis:
  1. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
  2. The student must submit his/her approved, properly formatted thesis

to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 3 Requirements: Pediatric Nurse Practitioner**

Total Credits Required: 46

#### Course Requirements

#### **MSN Core – Credits: 18**

NURS 703 - Advanced Health Assessment

NURS 704 - Advanced Pathophysiology and Genetics I

NURS 706 - Nursing Theory and Research

NURS 711 - Informatics and Quality Improvement

NURS 713 - Health Policy and Population Health

NURS 730 - Advanced Pharmacology and Genetics II

#### **MSN PNP Required Courses – Credits: 25**

NURS 702 - Diagnostic Reasoning and Clinical Decision Making for the PNP

NURS 714 - Family Theory and Health Promotion

NURS 734 - Primary Prevention in Pediatrics: The Well Child & Adolescent

NURS 744 - Primary Care in Pediatrics: Common Problems

NURS 752 - Nurse Practitioner Business and Roles

NURS 764 - Primary Prevention in Pediatrics: Chronic Illness

#### **Culminating Experience - Credits: 3**

NURS 761 - Clinical Synthesis

#### Degree Requirements

1. Maintain a cumulative grade point average of 3.00 or above each semester enrolled.
2. Receive a grade of B (3.00) or above in all required cognate and nursing courses. If less than a B, for example a B- (2.70), is earned, the course must be repeated. The student must be in good standing to repeat a course and any required course may be repeated only one time.

3. A student may register for a course only two times. A student who has registered for the same course twice and has withdrawn or received a grade less than B is ineligible for readmission unless approved by the UNLV Graduate College.
4. If a student fails two courses or has withdrawn from two courses or received a grade less than B in two courses he/she is ineligible for readmission unless approved by the Graduate College.
5. Complete a minimum of six semester hours in each calendar year.
6. Continuously register for a minimum of three (3) semester hours of credit each semester while working on the thesis or capstone project.
7. In order to maintain clinical competency the PNP student must continuously register for at least three (3) semester hours of NURS 773 (clinical practicum) each semester while working on the thesis or capstone project if all required clinical courses are complete.
8. Residency Credits: No more than three courses (maximum 7 credits) may be transferred into the program. The MSN Coordinator and the Graduate College must approve transfer credit.
9. Credit by Challenge Examination: Graduate courses with a 700 number or above may not be challenged for credit.
10. Six-Year Completion Rule: All degree requirements must be completed within six calendar years from the date of matriculation. No credit may be used in an advanced degree program for course work completed more than six calendar years immediately preceding the term in which all degree requirements are completed.
11. Graduation Requirements: Students have a choice of the catalog under which they wish to graduate. They may choose between: 1) the year of official matriculation, or 2) the year of graduation. Students are encouraged to meet the requirements of the current catalog.

## **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Comprehensive Examination: Students in all tracks will be formally evaluated by an Examination Committee for their thesis or capstone project. (More detailed information is provided in the MSN Handbook.)
3. Complete a thesis or capstone project.
4. If completing a thesis:
  1. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
  2. The student must submit his/her approved, properly formatted thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## School of Nursing Courses

### NURS 501 - Critical Care Nursing Credits 6

This course provides RNs a beginning understanding of Critical Care Nursing and the knowledge required within this role. The student will be prepared to work in critical care settings, including ICU, CCU, Recovery Room or the Emergency Room. The course is composed of online didactic content, laboratory skills practice, simulation experience and clinical internship.

### NURS 622 - AIDS: An Interdisciplinary Perspective Credits 3

Interdisciplinary survey of various issues surrounding AIDS (Acquired Immune Deficiency Syndrome) as viewed from several conceptual, professional, and experiential disciplines. Offers the most current cognitive information about AIDS and provides an affective awareness of major issues related to the disease.

### NURS 654 - Introduction to Forensic Nursing Credits 3

This course has been approved for graduate credit. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

### NURS 675 - Nursing Systems Management Credits 3

This course has been approved for graduate credit. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

### NURS 676 - Introduction to Nursing Case Management Credits 3

This course has been approved for graduate credit. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

### NURS 677 - Nursing Case Management Systems Credits 3

This course has been approved for graduate credit. A full description of this course may be found in the

Undergraduate Catalog under the corresponding 400 number.

### NURS 701 - Diagnostic Reasoning and Clinical Decision Making for the FNP Credits 2

Student applies principles learned in advanced health assessment by reinforcing diagnostic reasoning skills needed to assess and manage acute and chronically ill patients across the lifespan. Theory will include evaluation of case studies to develop differential diagnoses. 45 hours of clinical practice in simulation lab for practical application.

**Corequisite** NURS 703 or Department consent

### NURS 702 - Diagnostic Reasoning and Clinical Decision Making for the PNP Credits 2

This course applies the principles learned in advance health assessment by reinforcing diagnostic reasoning skills to assess and manage acute and chronically ill children and adolescents. Theoretical components include evaluation of case studies to develop differential diagnosis. 45 clinical hours are incorporated for hands on clinical practice for safe patient care.

**Corequisite** NURS 703 or Department Consent.

### NURS 703 - Advanced Health Assessment Credits 3

This course will build upon health assessment skills developed in the nursing undergraduate program. Emphasis will include developing advanced techniques in history taking and physical examination to prepare students for roles having components of direct care practices.

**Prerequisites** Admission to Graduate Program or consent of MSN Program Coordinator.

### NURS 704 - Advanced Pathophysiology and Genetics I Credits 3

Emphasis on physiologic mechanisms and pathophysiology of disease from a cellular perspective to include growth and development through the life span. Focus on genomics in basic and molecular concepts in biology, human diversity and variation, genetic disorders, influences on chromosome, gene action and inheritance modes.

**Prerequisites** Admission to Graduate Program or consent of MSN Program Coordinator.

NURS 706 - Nursing Theory and Research  
Credits 3

This course is designed to explore historical, philosophical, and bio-psychosocial foundations of advanced nursing practice. Nursing philosophy, theory, research, and practice will be analyzed. Evidence Based Practice will be explored; concept analysis, qualitative and quantitative research, and application of evidence based practice in theoretical and clinical application.

**Prerequisites** Admission to Graduate Program or consent of MSN Program Coordinator.

NURS 708 - Analysis and Economics of Healthcare Systems and Delivery  
Credits 3

Focus on the role of advanced practice nurses in the analysis and economics of healthcare systems and healthcare delivery. Emphasis will be placed on research and knowledge of the impact of economic, socio-political, ethical, and other forces on the economics and delivery of and access to healthcare.

**Prerequisites** Admission to DNP program and consent of instructor.

NURS 709 - Teaching and Learning in Nursing Education  
Credits 3

Analyzes traditional and alternative teaching and learning concepts in the context of the role of nurse educator. Development of a personal philosophy of education and how it connects to teaching/learning expectations. Focus on development of self within the role of nurse educator.

**Prerequisites** Admission into graduate program or consent of appropriate program coordinator (MSN or PhD)

NURS 710 - Course Level Evaluation Strategies for Nurse Educators  
Credits 3

Develops formative/process and summative/outcome evaluations for learning within classroom, clinical, and laboratory settings for use with students, patients or clinical staff. Attention to legal/ethical issues related to evaluation, including cultural bias and accommodation for students with disabilities.

**Prerequisites** Admission to Graduate Program or permission of appropriate program coordinator (MSN or PhD)

NURS 711 - Informatics and Quality Improvement  
Credits 3

Introduces informatics theory and application of quality and safety practices focusing on the impact of informatics on nursing education, healthcare, improving outcomes, and providing cost-effective health care.

**Prerequisites** NURS 706

NURS 712 - Strategies for Management of Healthcare Systems and Performance Improvement  
Credits 3

Focus will be on the analysis of theories and research on individual and organizational change, including incremental and transformational change. Utilization and integration of information and communication theories and technology to improve human performance will also be discussed.

**Prerequisites** Admission to DNP program, consent of instructor and NURS 708, NURS 711, NURS 719R.

NURS 713 - Health Policy and Population Health  
Credits 3

Examines selected health problems for specific populations from a political, cultural, social, educational, environmental, economic and ethical perspective. Analysis of research and public policy relevant to the prevention, treatment and amelioration of the problems, initiate change strategies to impact public policy related to the selected problems.

**Prerequisites** Admission to Graduate Program or consent of MSN Program Coordinator.

NURS 714 - Family Theory and Health Promotion  
Credits 2

Focus on family systems, theories in the context of society and culture. Emphasis on family as a client in holistic assessment and health promotion across the lifespan.

**Prerequisites** Admission to Graduate Program or consent of MSN Program Coordinator.

NURS 715 - Business Management for Nurse Practitioners

Credits 2

Focus is on issues surrounding human and material resource management in an advanced practice setting. The student applies knowledge of health care delivery environments and institutional requirements to explore issues regarding personnel and budgetary management.

**Prerequisites** Admission to DNP Program and consent of instructor.

NURS 716 - Population Health: Analysis and Evaluation

Credits 3

Prepares students to utilize epidemiology and advanced practice nursing concepts and strategies in the analysis and evaluation of health problems of groups that may be encountered by the nurse practitioner.

**Prerequisites** Admission to DNP Program, consent of instructor, and NURS 706, NURS 719R, NURS 729R.

NURS 717 - The Accreditation Process

Credits 1

Prepares the student to recognize assessment, data collection, and documentation requirements in preparation for a nursing education program's accreditation and contribute to writing a self-study report for an accreditation site visit.

**Prerequisites** Admission to DNP Program, consent of instructor, and NURS 706, NURS 724

NURS 718 - Organizational Management for the Advanced Practice Nurse

Credits 3

Focuses on quality care by advanced practice nurses in a variety of health institutions. Explores advanced nursing practice issues for their organizational factors, reviews methods of assessing clinical outcomes, and explores the relationship of quality care with values, ethics, and models of care.

**Prerequisites** Admission to DNP Program, consent of instructor, NURS 706 and NURS 708.

NURS 719R - Health & Public Policy for Advanced Practice of Nursing

Credits 3

Prepares nursing leaders to analyze and influence health policy. Defines problems, critiques potential

solutions, assesses political influences, designs interventions for policy-making, and evaluates outcomes.

**Prerequisites** Admission to the DNP Program or permission of instructor.

NURS 721 - Principles and Strategies for Clinical Supervision in Nursing

Credits 3

Prepares the student to apply nursing education and clinical supervision concepts and strategies to the clinical supervision of undergraduate and graduate nursing students in a variety of healthcare settings.

**Prerequisites** Admission to DNP Program, consent of instructor and NURS 703, NURS 706, NURS 709, NURS 724, NURS 729R, NURS 730.

NURS 724 - Developing & Evaluating Curriculum for Nursing Education

Credits 4

Develop curriculum for educational programs within the context of academic or clinical settings. Design curriculum level evaluation of the program that is developed. Focus on connection to larger unit mission, program and level outcomes, use of evaluative theories to guide process and inclusion of stakeholders throughout.

**Prerequisites** NURS 710 or admission to graduate program or consent of appropriate program coordinator (MSN/PhD).

NURS 725 - Scientific Underpinnings of the DNP in Advanced Practice Nursing

Credits 2

Articulates and supports a role for the nursing doctorate to prepare nurse leaders within the discipline of nursing.

**Prerequisites** Admission to the DNP Program.

NURS 728R - Analysis of Health Organizations

Credits 2

An introduction to the analysis of the health/human service organization as a particular type of complex organization.

**Prerequisites** Admission to the DNP Program or permission of instructor.

NURS 729R - Translational Evidence for Healthcare Systems

Credits 3



Critical analysis and synthesis of the literature and available data to determine and implement evidence-based science into healthcare practice.

**Prerequisites** Admission to the DNP Program or permission of instructor.

NURS 730 - Advanced Pharmacology and Genetics II

Credits 3

Focuses on the clinical application of pharmacologic and pharmacy kinetics principles in the management of selected health problems of adults and children. Focus on drugs commonly used for adults and children in primary care settings. Focus on application of pharmacogenomics and pharmacogenetics to pharmacology.

**Prerequisites** NURS 704

NURS 732 - Economics of Healthcare Delivery

Credits 3

Addresses basic concepts and techniques for financial management as it relates to clinical practice, clinical teaching, and research in healthcare programs and organizations.

**Prerequisites** Completion of the first term courses in the DNP program or permission of the instructor.

NURS 733 - Nursing Education Practicum I

Credits 2

Applies strategies and concepts of the nurse educator role in clinical or classroom setting in area of clinical specialty.

**Prerequisites** NURS 709, NURS 710, and NURS 724.

NURS 734 - Primary Prevention in Pediatrics: The Well Child & Adolescent

Credits 2

Primary care of children and adolescents, specifically, advanced nursing assessment and interventions designed to promote the wellness of children, are emphasized. Includes screening anticipatory guidance and health promotion strategies. Financial, legal and ethical issues related to practice with children and adolescents are addressed.

**Notes** Twelve hours of precepted practicum per week.

**Prerequisites** NURS 703, NURS 730 and NURS

**Corequisite** NURS 734L

NURS 734L - Primary Prevention in Pediatrics: The Well Child & Adolescent Clinical

Credits 4

This course provides the PNP student with the knowledge and skills necessary to promote the wellness of children, birth through adolescence. Includes screening, anticipatory guidance and health promotion strategies.

**Notes** May not be repeated for credit.

**Grading** S/F

**Prerequisites** NURS 702, NURS 703, NURS 730

**Corequisite** NURS 734

NURS 739 - Biobehavioral Approaches in Nursing Research

Credits 3

Presents an overview of the common theories and research methodologies necessary to conduct biobehavioral research. The emphasis of the course is on identifying the student's phenomenon of interest, identifying an appropriate theory and developing research strategies to test the biological and behavioral components of this identified phenomenon.

NURS 740R - FNP Adult and Women's Health

Credits 6

This course provides the FNP student with the knowledge and skills necessary to manage patients in the primary care setting. Specific content relates to primary care needs of adults, including adolescent through older adults, in screening for, preventing, and/or managing common acute and chronic conditions.

**Notes** This course has a non-credit clinical component. For more information, please refer to the course syllabus. **Prerequisites** NURS 701, NURS 703 and NURS 730

NURS 741 - Biobehavioral Mechanisms, Pathways, and Measurements

Credits 3

An overview of behavioral genetics, the basics of cell biology and genetics, and examples of common molecular pathways related to human diseases and symptoms. The course will highlight: (1) biological markers, including genetic and behavioral markers, and biological pathways associated with illnesses;

and (2) biological and behavioral measurements.

**Prerequisites** NURS 739

NURS 742 - Advanced Nursing Informatics  
Credits 2

Analyze the use of computer and information science and systems to manage and process data, information and knowledge in nursing education.

**Notes** Nursing specialty serves as the context for course assignments.

**Prerequisites** Admission to the Graduate Nursing Program or Certificate Program for Nurse Educators.

NURS 743 - Nursing Education Practicum 2  
Credits 2

Second practicum to apply strategies and concepts of the nurse educator role in clinical or classroom setting in area of practice specialty.

**Prerequisites** NURS 733.

NURS 744 - Primary Care in Pediatrics: Common Problems  
Credits 2

This course is developmentally organized to provide knowledge and experience to care for acute episodic illnesses of children, adolescents and young adults in primary health care settings. Students will synthesize knowledge of developmental, physiological, psychological, and sociocultural factors in the assessment and management of acute illness.

**Notes** Nine hours per week of precepted practicum.

**Prerequisites** NURS 734 and NURS 734L

**Corequisite** NURS 744L

NURS 744L - Primary Prevention in Pediatrics: Common Problems  
Credits 2 to 4

This course provides the PNP student the working knowledge and skills necessary to care for assessment, diagnosis, management and evaluation of common acute health problems affecting children from infancy through adolescence. It puts into practice didactic content from NURS 744.

**Notes** Can be repeated up to 4 credits.

**Grading** S/F

**Prerequisites** NURS 734, NURS 734L

**Corequisite** NURS 744

NURS 745 - Healthcare Information Systems & Technology

Credits 3

Leadership models for nurse educator, advanced practice, or management roles. Mentorship, service, knowledge dissemination and impact of diversity on ethical leadership practices are included.

**Prerequisites** Completion of the second term of the DNP Program or permission of the instructor.

NURS 746 - Scholarly Project Applying Biobehavioral Concepts  
Credits 4

Builds upon student's knowledge and skills in biobehavioral approaches in nursing research as well as biological mechanisms, pathways, and measurements. Theoretical application of concepts evaluating a common patient symptom and corresponding biological markers and behavioral measures. Students will critique current literature to synthesize and formulate an integrative review.

**Prerequisites** NURS 739 and NURS 741

NURS 750R - FNP Children and OB  
Credits 6

Theoretical and clinical concepts of primary and secondary prevention for children and pregnant women. Focus is on health maintenance, teaching, screening, and clinical management of common acute health problems. Emphasis is on wellness management, differential diagnoses, and pharmacologic/non-pharmacologic treatment options (15 hours of clinical per week).

**Notes** This course has a non-credit clinical component. For more information, please refer to the course syllabus.

**Prerequisites** NURS 740R

NURS 752 - Nurse Practitioner Business and Roles  
Credits 3

Explores transitioning into role of nurse practitioner as individual and part of interprofessional care team. Focuses on ethical decision making, legal issues, various practice plans, billing, credentialing, and legal certification requirements for practice.

**Prerequisites** NURS 704, NURS 730

NURS 753 - Nurse Educator Scholarship Project  
Credits 1

Examines literature and best practices to identify a gap in the nursing education setting, provides a plan to address the gap based on change theory,

recommends implementation strategies, and creates an evaluation plan.

**Prerequisites** NURS 706, NURS 711 and NURS 733

NURS 755 - Nursing Educator Role Development  
Credits 2

Explores the role of the nurse educator including development in the areas of teaching, research, and service. Examines interpersonal dynamics and teamwork in academic and practice settings, functioning within institutional expectations, developing a teaching portfolio, legal issues, and future directions in nursing education.

NURS 760R - FNP Geriatric and Chronic Illness  
Credits 6

Culminating course focusing on clinical experiences to develop skill and knowledge in providing care to families in primary care settings. Students practice with increasing independence under the supervision of preceptors and clinical instructors. Students will study complex, multiple co-morbidities in all levels of primary, secondary, and tertiary care.

**Notes** This course has a non-credit clinical component. For more information, please refer to the course syllabus.

**Prerequisites** NURS 714 and NURS 750R

NURS 761 - Clinical Synthesis  
Credits 3

This clinical course serves as a culminating experience. Students will work with their clinical preceptor(s) to integrate and apply previously acquired knowledge and skills and will demonstrate achievement of expected program outcomes.

**Notes** This course has a non-credit clinical component. For more information, please refer to the course syllabus.

**Prerequisites** NURS 744 or NURS 750R

NURS 763 - Management Strategies for Nursing & Healthcare Systems  
Credits 3

Analysis and application of human resource management, public relations, and marketing strategies for effective and efficient use of human talent to accomplish organizational goals.

**Prerequisites** Completion of term 3 of DNP Program.

NURS 764 - Primary Prevention in Pediatrics:  
Chronic Illness  
Credits 2

Builds upon student's knowledge and skills in biobehavioral approaches in nursing research as well as biological mechanisms, pathways, and measurements. Theoretical application of concepts evaluating a common patient symptom and corresponding biological markers and behavioral measures. Students will critique current literature to synthesize and formulate an integrative review.

**Notes** Nine hours of precepted clinical experience in primary care per week.

**Prerequisites** NURS 734, NURS 744

**Corequisite** NURS 764L

NURS 764L - Primary Prevention in Pediatrics:  
Chronic Illness Clinical  
Credits 4

This course provides the PNP student the working knowledge and skills necessary to care for assessment, diagnosis, management and evaluation of chronic health problems affecting children from infancy through adolescence. It applies didactic content from NURS 764.

**Notes** Nonrepeatable for credit.

**Grading** S/F

**Prerequisites** NURS 734 and NURS 744

**Corequisite** NURS 764

NURS 765 - DNP Residency  
Credits 4

Residency to apply program concepts and develop and implement strategies for practice-level and/or system-wide practice initiatives to improve the quality of care.

**Prerequisites** Admission to the DNP Program and NURS 719R, NURS 725, NURS 728R, NURS 729R, NURS 732 and NURS 767.

NURS 767 - Collaboration, Communication & Negotiation for the Nurse Leader  
Credits 2

The utilization of collaboration, communication and negotiation for implementation of practice models, peer review, practice guidelines, health policy, standards of care, and other scholarly products.

**Prerequisites** Admission to the DNP Program and NURS 729R and NURS 772.

NURS 768 - DNP Forum & Role Transformation  
Credits 2

Examination of issues and challenges in the DNP role and skills and strategies to conceptualize, articulate, plan, and actualize a career as a nurse leader.

**Prerequisites** NURS 719R ,NURS 725, NURS 728R, NURS 729R , NURS 767 , and NURS 772

NURS 770 - Knowledge Development in Nursing  
Credits 3

Offers a disciplinary context for doctoral study in nursing. The history and evolution of nursing knowledge is examined. Emphasis is on debates regarding what is known and how it is known.

**Prerequisites** Enrollment in nursing doctoral program.

NURS 771 - Theory Development in Nursing  
Credits 3

Theoretical frameworks that guide the development of nursing knowledge. The methods and processes of theory development are analyzed.

**Prerequisites** Enrollment in doctoral program.

NURS 772 - The Nurse as Leader  
Credits 3

Leadership models as templates for nurse leader. Factors that influence leadership will be explored.

**Prerequisites** Admission into doctoral (DNP or PhD) program or permission of the instructor.

NURS 773 - Clinical Practicum  
Credits 3 - 6

Designed for students continuing a clinical practicum while completing other program requirements.

Students enrolled in this clinical practicum course must register for at least 3 credits (this translates to at least nine hours of clinical per week) but no more than six credits in any one semester.

**Notes** May be repeated up to three consecutive semesters but a student may not take more than a total of nine credits.

**Prerequisites** NURS 764

NURS 774 - Educational Theory and Philosophy for Nursing  
Credits 3

Explores traditional and contemporary philosophies and theories of education within the context of societal development. Examines the role of

educational theory and philosophy within nursing education.

**Prerequisites** Enrollment in the nursing doctoral program.

NURS 775 - Statistical Methods for Nursing  
Research I: Univariate Methods  
Credits 3

Designed to provide students with skills necessary to understand, interpret, and conduct descriptive and univariate analysis relevant to the field of nursing. Students will gain practical experience examining real-world data sets using SPSS software.

**Prerequisites** Enrollment in the nursing doctoral program; successful completion of introductory graduate level statistics course.

NURS 776 - Statistical Methods for Nursing  
Research II: Multivariate Methods  
Credits 3

Focuses on multivariate methods useful for the field of nursing research. Students will be expected to complete a capstone project to explore and implement statistical methods likely to be part of their dissertation projects.

**Prerequisites** NURS 775 or equivalent; enrollment in the nursing doctoral program.

NURS 777 - Individualized Study/Dissertation  
Seminar  
Credits 1 - 5

Individualized study or seminar to facilitate dissertation research.

**Notes** May be repeated to a maximum of five credits.

**Prerequisites** Admission into doctoral program or permission of instructor.

NURS 778 - Geographic Information Systems for Health  
Credits 3

This course introduces the use of epidemiologic methods and modern geographic information systems to analyze the relationships between socioeconomic, physical, geopolitical, and demographic factors and sustainable health. These techniques form the basis of assessment of urban health problems to inform, plan, deliver, and evaluate appropriate interventions to ensure sustainability.

**Prerequisites** Admission into Doctoral (DNP or PhD) program or permission of instructor.

NURS 779 - Writing a Research Grant Application  
Credits 2

Involves preparing and writing a research grant application. Students will learn how to prepare a research budget and budget justification; write a resources and environment section, a biosketch, and project timeline; and propose an innovative and significant research proposal.

**Prerequisites** NURS 780 or permission of instructor.

NURS 780 - Quantitative Methods in Nursing  
Credits 3

Examines, quantitative and mixed-method approaches used in nursing research.

**Prerequisites** Admitted to nursing doctoral program.

NURS 781 - Qualitative Research Methods in Nursing  
Credits 3

Examines qualitative approaches used in nursing research.

**Prerequisites** NURS 780, Enrollment in the Nursing Ph.D. Program.

NURS 782 - Sustainable Health: Clinical Perspectives  
Credits 4

This course focuses on air quality, potable water, waste disposal, disasters, and other potentially health-threatening environmental problems that affect health in developing and developed countries. The impact of environmental practices on sustainable health will be examined.

**Prerequisites** NURS 778, admission into doctoral program or permission of instructor.

NURS 783 - Economics of Sustainable Health  
Credits 3

Uses an economic sustainability approach to examine health effects of such issues as health insurance and health care financing, acute and chronic disease, and psychosocial issues. The economics of sustainable health in developing and developed countries will be compared.

**Prerequisites** Admission into doctoral program or permission of instructor.

NURS 784 - Sustainable Health and Public Policy  
Credits 3

Examines urban health promotion in terms of primary, secondary, and tertiary prevention, with an emphasis on the policy issues and critical processes that shape them. Apply theories to identify urban health promotion issues that are linked to sustainability and identify policy strategies for upstream interventions.

**Prerequisites** Admission into doctoral program or permission of instructor.

NURS 785 - Special Topics in Nursing Research  
Credits 2-8

Provides the student with an opportunity for an in-depth exploration of specific aspects of nursing research issues and approaches.

**Prerequisites** NURS 780 and admission to doctoral program.

NURS 788 - DNP Project  
Credits 1-6

The student will complete the DNP Project design and implementation. The results will be evaluated culminating with a final written and oral defense. The course may be repeated, but only six credits may be applied to the student's program.

**Notes** The course may be repeated, but only six credits may be applied to the student's program.

**Prerequisites** Admission to DNP Program and consent of instructor.

NURS 789 - Independent Study  
Credits 3

Supervised student designed study project done in consultation with instructor; must be submitted in writing to student advisor and graduate program coordinator for approval. May be repeated to a maximum of 10 credits.

**Prerequisites** NURS 770, NURS 771, NURS 772, NURS 780, enrollment in nursing doctoral program.

NURS 790 - Independent Teaching Practicum Seminar  
Credits 1

Exploration in group settings of actual experiences and outcomes of independent teaching practicum. Options for enhanced personal performance as nurse educator will be discussed.

**Notes** Must be taken concurrently with NURS 791.

**Prerequisites** NURS 724, NURS 733 and enrollment in nursing doctoral program.

NURS 791 - Independent Teaching Practicum  
Credits 5

Integrate knowledge and competencies of nurse educator through application in independently taught undergraduate nursing course; systematic exploration of roles, responsibilities, and opportunities inherent in practice of nursing education. May be repeated to a maximum of five credits.

**Prerequisites** NURS 724, NURS 733 and enrollment in nursing doctoral program.

NURS 792 - Outcomes Management & Performance Improvement in Nursing  
Credits 3

Application of concepts of quality improvement and safety to the management of outcomes in healthcare and nursing systems to ensure delivery of quality interprofessional care.

**Prerequisites** Completion of Term 3 of DNP program.

NURS 793 - Nursing Education Professional Paper  
Credits 3

Focuses on a key area of nursing education requiring exploration and development. Students will select a committee to provide review and guidance. The final paper will be adapted and submitted for publication to a professional, peer-reviewed journal.

**Prerequisites** NURS 706 and NURS 733.

NURS 797 - Dissertation  
Credits 3-6

Research analysis and writing toward completion of dissertation and subsequent defense.

**Formerly** (NURS 798)

**Notes** Repeatable for up to 12 credits.

**Grading** S/F grading only.

**Prerequisites** Enrollment in nursing doctoral program and consent of instructor.

NURS 798 - Independent Study  
Credits 1 – 3

Graduate seminar focusing on current developments in nursing practice.

**Formerly** (NURS 797)

**Notes** Topics vary each semester.

**Prerequisites** Admission to graduate program and consent of instructor.

NURS 799 - Thesis  
Credits 3

May be repeated, but only six credits may be applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** NURS 706

## **William F. Harrah College of Hotel Administration**

Graduate education in the William F. Harrah College of Hotel Administration is a personalized experience. There is no better place to learn about the hospitality profession than the entertainment capital of the world-Las Vegas. Here we have a living laboratory with more than 146,000 hotel rooms and hundreds of casinos, restaurants, resorts, sporting events, conventions, trade shows, and leisure and recreation facilities. If you are interested in a post-graduate degree that will advance your career or prepare you to teach others about the hospitality industry, this is the place for you.

We offer a master's of science degree in Hotel Administration plus a dual MBA and M.S. in Hotel Administration degree, and, a dual M.S. in Hotel Administration and M.S. in Management Information Systems degree. We also have an executive master's degree and a Ph.D. in Hospitality Administration. Our internationally recognized, diverse faculty members will help you create an academic program that meets your unique needs.

The William F. Harrah College of Hotel Administration is known for its tradition of offering world-class programs in hospitality administration. The Ace Denken Co. Ltd. Endowment supports the Ph.D. in Hospitality Administration.

*Stowe Shoemaker, Ph.D., Dean, William F. Harrah College of Hotel Administration*

*James Busser, Ph.D., Associate Dean of Academic Affairs*

*Billy Bai, Ph.D., Associate Dean of Research and Graduate Programs*

## Hotel Administration Faculty & Staff

### Dean

**Stowe Shoemaker** - *Full Graduate Faculty Professor; B.S., University of Vermont; M.S., University of Massachusetts; Ph.D., Cornell University. Rebel since 2012.*

### Associate Deans

**James A. Busser** - *Full Graduate Faculty Associate Dean of Academic Affairs; Director, Ph.D. Program; Professor; B.A., Illinois State University; M.S., Ph.D., University of Illinois-Champaign-Urbana. Rebel since 1987.*

**Billy Bai** - *Full Graduate Faculty Associate Dean of Research and Graduate Programs; Associate Professor; B.A., Nankai University; M.Phil., Hong Kong Polytechnic University; M.S., Ph.D., Purdue University. Rebel since 2001.*

### Graduate Studies

**James A. Busser** - *Full Graduate Faculty Associate Dean of Academic Affairs; Director, Ph.D. Program; Professor; B.A., Illinois State University; M.S., Ph.D., University of Illinois-Champaign-Urbana. Rebel since 1987.*

**Christine Bergman** - *Full Graduate Faculty Director of M.S. in Hotel Administration Program; Professor; B.S., Loma Linda University; M.S., University of Arizona; Ph.D., Michigan State University. Rebel since 2005.*

**Tony Henthorne** - *Full Graduate Faculty Director of Master of Hospitality Administration Program; Director, Dual MBA/Master of Science in Hotel Administration Program; Director, Master of Science in Hotel Administration/Master of Science in Management Information Systems Program; Professor; B.A., Sacramento State College; M.A., Brigham Young University; Ph.D., Kansas State University. Rebel since 2007.*

**Daniel McLean** - *Full Graduate Faculty Director of Master of Hospitality Administration Program; Director, Master of Science in Hotel*

Administration/Master of Science in Management Information Systems Program; Professor; B.A., Sacramento State College; M.A., Brigham Young University; Ph.D., Kansas State University. *Rebel since 2007.*

**Gael Hancock**

Manager, Graduate Studies; B.S., Hendrix College; M.S., UNLV. *Rebel since 2007*

**Graduate Faculty**

**Bai, Billy** - *Full Graduate Faculty*

Associate Dean of Research and Graduate Programs; Associate Professor; B.A., Nankai University; M.Phil., Hong Kong Polytechnic University; M.S., Ph.D., Purdue University. *Rebel since 2001.*

**Baloglu, Seyhmus** - *Full Graduate Faculty*

Professor; B.S., Cukurova University; M.B.A., Hawaii Pacific University; Ph.D., Virginia Polytechnic Institute and State University. *Rebel since 1996.*

**Bergman, Christine** - *Full Graduate Faculty*

Director of M.S. in Hotel Administration Program; Professor; B.S., Loma Linda University; M.S., University of Arizona; Ph.D., Michigan State University. *Rebel since 2005.*

**Bernhard, Bo Jason** - *Full Graduate Faculty*

Executive Director International Gaming Institute; Professor; B.A., Harvard University; Ph.D., University of Nevada, Las Vegas. *Rebel since 2002.*

**Braunlich, Carl** - *Full Graduate Faculty*

Associate Professor; B.S., M.S., Cornell University; D.B.A., United States International University. *Rebel since 2006.*

**Busser, James A.** - *Full Graduate Faculty*

Associate Dean of Academic Affairs; Director, Ph.D. Program; Professor; B.A., Illinois State University; M.S., Ph.D., University of Illinois-Champaign-Urbana. *Rebel since 1987.*

**Cain, Christopher** - *Full Graduate Faculty*

Associate Professor in Residence; Director, PGA Golf Management Program. B.S., M.S., Pennsylvania State University, Ph.D., University of Nevada, Las Vegas. *Rebel since 2004.*

**Chatfield, Hyun Kyung** - *Full Graduate Faculty*

Associate Professor; B.S., M.B.A., Ph.D., University of Nevada, Las Vegas. *Rebel since 2008.*

**Chen, Chih-Chien** - *Full Graduate Faculty*

Assistant Professor; B.A., National Taiwan University; M.S., California State University; Ph.D., University of Illinois at Urbana-Champaign. *Rebel since 2014.*

**Christianson, David J.** - *Full Graduate Faculty*

Associate Professor; B.A., M.R.E., Brigham Young University; Ph.D., Texas A&M University. *Rebel since 1977.*

**Dalbor, Michael C.** - *Full Graduate Faculty*

Professor; B.S., Ph.D., Pennsylvania State University; M.B.A., Loyola College. *Rebel since 2000.*

**Erdem, Mehmet** - *Full Graduate Faculty*

Associate Professor; B.S., M.S., Purdue University; Ph.D., University of Nevada, Las Vegas. *Rebel since 2006.*

**Gatling, Anthony** - *Full Graduate Faculty*

Assistant Professor; B.A., Duquesne University; M.B.A., Wayne State University; D.B.A., Lawrence Technological University. *Rebel since 2012.*

**Henthorne, Tony L.** - *Full Graduate Faculty*

Director, Dual MBA/Master of Science in Hotel Administration Program; Director, Master of Science in Hotel Administration/Master of Science in Management Information Systems Program; Professor; B.A., Ouachita Baptist University; M.B.A., University of Arkansas, Fayetteville; Ph.D., University of Mississippi. *Rebel since 1986.*

**Hertzman, Jean** - *Full Graduate Faculty*

Associate Professor; B.S., Cornell University; M.B.A., Tulane University; Ph.D., University of Nevada, Las Vegas. *Rebel since 2006.*

**Kim, Jungsun (Sunny)** - *Full Graduate Faculty*

Assistant Professor; B.A. Kyung Hee University; M.S., Ph.D., University of Nevada Las Vegas. *Rebel since 2012.*

**Kim, Yen-Soon** - *Full Graduate Faculty*

Associate Professor; B.S., M.S., Soonchunhyang



University; Ph.D., Oklahoma State University. *Rebel since 2005.*

**Kincaid, Clark S.** - Full Graduate Faculty

Associate Professor; B.A., Southern Utah State College, M.S., Ph.D., University of Nevada, Las Vegas. *Rebel since 2004.*

**Lucas, Anthony** - Full Graduate Faculty

Professor; B.S., Ball State University; M.B.A., Ph.D., University of Nevada, Las Vegas. *Rebel since 2001.*

**McLean, Daniel** - Full Graduate Faculty

Director of Master of Hospitality Administration Program; Director, Master of Science in Hotel Administration/Master of Science in Management Information Systems Program; Professor; B.A., Sacramento State College; M.A., Brigham Young University; Ph.D., Kansas State University. *Rebel since 2007.*

**Montgomery, Rhonda** - Full Graduate Faculty

Associate Professor; B.S., M.S., Purdue University; Ph.D., University of South Carolina. *Rebel since 1995.*

**Moreo, Pat** - Full Graduate Faculty

Professor; B.S., University of Nevada, Las Vegas; M.P.S., Cornell University; Ed.D., University of Nevada, Las Vegas. *Rebel since 1983.*

**Raab, Carola** - Full Graduate Faculty

Associate Professor; B.S., M.B.A., Ph.D., University of Nevada, Las Vegas. *Rebel since 2003.*

**Repetti, Toni** - Full Graduate Faculty

Assistant Professor; B.S., University of Nevada, Las Vegas; M.B.A., Colorado State University; Ph.D., University of Nevada, Las Vegas. *Rebel since 2012.*

**Sammons, Gail** - Full Graduate Faculty

Professor; B.S., North Dakota State University; M.S., University of Nevada, Las Vegas; Ph.D., Pennsylvania State University. *Rebel since 1996.*

**Stowe Shoemaker** - Full Graduate Faculty

Dean; Professor; B.S., University of Vermont; M.S., University of Massachusetts; Ph.D., Cornell University. *Rebel since 2012.*

**Singh, Ashok** - Full Graduate Faculty

Professor; B.S., M.S., Lucknow University; Ph.D., Purdue University. *Rebel since 1991.*

**Tanford, Sarah** - Full Graduate Faculty

Director of M.S. in Hotel Administration Program; Associate Professor; B.A., Northwestern University; M.S., Ph.D., University of Wisconsin-Madison. *Rebel since 2008.*

**Werner, William B.** - Full Graduate Faculty

Associate Professor; B.A., Ohio State University; J.D., University of Cincinnati. *Rebel since 2001.*

**Woods, Robert N.** - Full Graduate Faculty

Professor; B.S., University of Oklahoma; M.S., Ph.D., Cornell University. *Rebel since 2000.*

**Zemke, Dina Marie** - Full Graduate Faculty

Assistant Professor; B.S., Cornell University; M.B.A., University of Minnesota; Ph.D., University of Nevada, Las Vegas. *Rebel since 2012.*

**Deans and Professors Emeriti**

**Abbey, James R.**

Emeritus Professor; B.A., M.B.A., Michigan State University; Ph.D., Utah State University. *UNLV Emeritus 1973-2000.*

**Borsenik, Frank D.**

Emeritus Professor; B.S., M.S., Ph.D., Michigan State University. *UNLV Emeritus 1975-1994.*

**Eade, Vincent**

Emeritus Professor; B.A., M.A., Bonaventure. *UNLV Emeritus 1986-2015.*

**Goodwin, John R.**

Emeritus Associate Professor; B.A., Michigan State University; M.A., Pepperdine University; D.B.A., United States International University. *UNLV Emeritus 1980-1993.*

**Gu, Zheng**

Emeritus Professor; B.S., Hangzhou University; M.S., Ph.D., University of Central Florida. *UNLV Emeritus 1991.*

**Mann, Stuart H.**

Emeritus Dean of the William F. Harrah College of Hotel Administration; B.S., University of Illinois; M.S., Ph.D., Case Western Reserve University. *UNLV Emeritus 1998.*

**Mayer, Karl**

Emeritus Professor; B.S., University of Wisconsin-Madison; M.S., Columbia University; M.B.A. Harvard University; Ph.D., University of Nevada, Las Vegas. *UNLV Emeritus 2001-2013.*

**McCool, Audrey**

Emeritus Professor; B.S., M.A., University of Illinois, Urbana; Ed.D., Texas Tech University. *UNLV Emeritus 1990.*

**Metcalfe, Lyell E.**

Emeritus Associate Professor; B.S., B.A., M.A., University of Arizona; C.P.A., California. *UNLV Emeritus 1970-1994.*

**Shock, Patti**

Emeritus Professor; B.S., M.S., University of Southern Mississippi. *UNLV Emeritus 1988-2013.*

**Stefanelli, John**

Emeritus Professor; B.S., University of Illinois; M.B.A., Michigan State University; Ph.D., University of Denver. *UNLV Emeritus 1978.*

**Vallen, Jerome J.**

Emeritus Dean of the William F. Harrah College of Hotel Administration and Professor; B.S., Ph.D., Cornell University; M.Ed., St. Lawrence University. *UNLV Emeritus 1967-1998.*

## Doctor of Philosophy - Hospitality Administration

### Plan Description

The Ph.D. program is a multi-conceptual and research-based degree program designed to produce top quality hospitality and tourism educators and researchers. It focuses on preparing students to be excellent teachers at the university level, and engages them in scholarly research in hospitality and tourism management. Upon graduation, students will be able to teach and conduct research at the university level, and work at industry research institutions. The Ph.D. program is highly competitive, seeking motivated individuals who are committed to pursuing academic and research careers in hospitality and tourism. The program is partly supported by the Ace Denken Co. Ltd. Endowment.

For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.

### Plan Admission Requirements

Application deadlines

Applications available on the UNLV Graduate College website.

The student must satisfy the minimum admission requirements of the Graduate College and the Harrah Hotel College including:

1. Completed online application found in the upper right-hand column of the Graduate College home page and payment of required application fee.
2. Official transcripts sent directly from all educational institution(s) attended after high school are required by both the Graduate College and the Harrah Hotel College Graduate Studies Office. Unofficial transcripts may be uploaded to the online application. Please note: it is a requirement of the UNLV Graduate College that students with class credits and/or degrees from educational institutions outside the United

States must provide a course-by-course evaluation of those credentials by a NACES Evaluation Agency. This is to obtain an evaluation of the courses, verification of degrees, and establish accreditation of the schools and/or universities. A copy of this evaluation should be sent to both the UNLV Graduate College and the Harrah Hotel Graduate Studies Office.

3. Master's degree from an accredited institution with at least 24 credits in hotel administration, food service administration, tourism-convention administration, or a closely aligned field.
4. An overall GPA of 3.00 on a 4.00 scale for all work completed at the post-baccalaureate level.
5. Three or more years of management/supervisory experience in the hospitality industry.
6. GRE or GMAT test results sent directly from the testing center to the Harrah Hotel College Graduate Studies Office. Students must make a satisfactory composite score on the Graduate Record Examination (GRE) (institution code 4861), minimum score in the 50th percentile—with at least 35% on the verbal portion; on the Graduate Management Admission Test (GMAT) (department code ZSC 37-32), minimum score 550 with at least 25% on the verbal portion.
7. A statement of 500 words outlining what the applicant expects to accomplish during the Ph.D. program and his/her particular research interests.
8. Current resume (must have three or more years of management/supervisory experience in the hospitality industry).
9. Three Letters of Recommendation are required. It is preferred that these letters come from two college faculty members and one current or former employer. However, recommendations from one faculty member and two employers will suffice.
10. A master's level thesis or the equivalent.
11. All domestic and international applicants must review and follow the Graduate

#### College Admission and Registration Requirements .

*Application Deadline:* Refer to the Graduate College website for specific deadlines.

This program does not admit for the spring semester. All documentation and application materials must be in the Graduate College and the William F. Harrah College of Hotel Administration Graduate Studies Office by the deadline for the application to be considered.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

#### **Plan Requirements**

Total Credits Required: 60

Course Requirements

#### **Required Course – Credits: 3**

HOA 794 - Issues and Trends for Hospitality Educators

#### **Additional Required Courses – Credits: 18**

HOA 798 - Readings in Hospitality Management  
HOA 797 - Philosophy of Science in Hospitality Research

HOA 795 - Research Seminar in Hospitality Education

HOA 735 - Research Methodology

HOA 796 - Advanced Research Methodology

EPY 718 - Qualitative Research Methodologies

#### **Required Statistical Analysis Courses – Credits: 6**

Complete two of the following courses:

STA 713 - Experimental Design

STA 715 - Multivariate Statistical Methods

EPY 722 - Inferential Statistics and Experimental Design

EPY 732 - Multiple Regression and Path Analysis

EPY 733 - Multivariate Statistics

EPY 734 - Latent Variable Models: Factor Analysis

and SEM

EAB 763 - Linear Statistical Models

EAB 783 - Multivariate Methods for the Health Sciences

PSC 702 - Advanced Quantitative Methods I

**Major and Minor Area of Study – Credits: 15**

Complete five courses authorized by your Chair and Academic Advisor.

Major Area of Study: Three 3-credit courses

Minor Area of Study: Two 3-credit courses

**Electives – Credits: 6**

Courses used to fulfill prerequisite requirements can count toward these elective credits if the courses are at the 700-level or higher.

**Dissertation – Credits: 12**

HOA 799 - Dissertation

**Degree Requirements**

1. Must have at least 24 credits in the William F. Harrah College of Hotel Administration (excluding dissertation credits) and 12 credits outside of the Harrah Hotel College. All credits must be from 700-level courses.
2. Successful completion of all courses approved on the student's graduate program of study with a 3.00 GPA or better. Any credits completed with less than a 2.00 GPA may result in the student's termination from the program.
3. After the first year of course work, but before the end of the fourth semester, a Qualifying Exam (Q-Exam) must be passed:
  - a. The Q-Exam is based on the material covered in two courses required of all students over their first two semesters in the program: HOA 730 – Statistical Analysis for Hospitality and HOA 735 – Research Methodology; or their equivalent.
  - b. The Director of the Ph.D. Program solicits exam questions from the

faculty teaching the required courses, conducts the exam, and distributes the completed exams to the faculty who wrote the questions for grading. The final grade determination will include a review by the Director of the Ph.D. Program.

- c. Students will be given two opportunities in the college computer lab without resources to pass the exam at a standard criterion of 75% on each question.
  - i. The first administration of the exam (two-½ days) will follow students second semester in the program (May). Students that are determined to be below standard on one question of the entire exam will be given the opportunity to rewrite that question in a second sitting one week following the rewrite decision.
  - ii. If the student does not meet the standard on the rewrite, the student will need to retake an entire new exam at a second administration (August) and will be placed on probation. Students retaking the exam at a second administration must meet the standard on all questions. There is not a rewrite option for those retaking the exam. Students who do not pass the exam on either attempt or do not meet their conditions of probation will be recommended to the Graduate College for separation from the Ph.D. program.

4. The student must file an approved degree plan before the start of the third semester after admission to the program. The degree plan must be developed in consultation with the student's Doctoral Advising Committee Chair, the Doctoral Advising Committee, the Director of the Ph.D. Program, and the Executive Director of Graduate Studies and Research.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Simultaneous to the last semester of content-related course work (non-dissertation credits), the student must pass a major and minor area comprehensive exam. This exam is designed by the student's Doctoral Advising Committee under the direction of the Doctoral Advising Chair. This exam must be taken within five years of the admission date.
  - a. The form of the written comprehensive exam shall be committee-driven. That is, it is up to each member of the committee to decide how she or he wishes the student to demonstrate content mastery. However, a minimum of one question should address each of the student's major and minor areas of study as indicated in their approved program of study. Two to three questions must be solicited from each member of the committee. In the event that there is redundancy among the questions, the chair should request a replacement question(s) from the appropriate committee member(s). Should the committee members decide to do so, they may solicit questions from other graduate faculty from whom the student has taken class. Inclusion of any questions non-committee members submit is at the discretion of the committee.
  - b. The written comprehensive exam will be offered two times per year at the beginning of the fall and spring semesters and may be completed off campus. After the committee chair has finalized the exam, it will be submitted to the Director of the Ph.D. Program. The Director will release the exam to the student at a designated date with a return of the completed exam to the Director within 48 hours. The Director will then disseminate the exam to the committee chair, who will distribute to committee members. The grading system for the exam will be a satisfactory – unsatisfactory. Each committee member determines whether the student's answers are satisfactory. The Director will inform the student of unsatisfactory answers that require a rewrite. The rewrite will follow the same procedure as the original exam and in consultation with the student will take place within 2 weeks of the unsatisfactory notification. Unsatisfactory answers require a rewrite by the students within 48 hours after receiving feedback from faculty. Students who are not satisfactory after the rewrite will be placed on probation and will need to retake the comprehensive exam at the next available sitting. Students retaking the comprehensive exam the second time must be satisfactory on all questions. There is not a rewrite option for those retaking the exam. Students who are not satisfactory

on either attempt or do not meet the conditions of probation will be recommended to the Graduate College for separation from the Ph.D. program. The committee chair shall inform the Director of the Ph.D. Program of the student's grade.

7. The student must successfully write and orally defend his/her dissertation proposal and the completed dissertation. The dissertation must be of substantial quality and length, original in thought and research, and make a significant contribution to the body of knowledge in the field of hospitality administration. Upon approval of the Doctoral Advising Committee, the student will orally defend both the dissertation proposal and the completed dissertation.
8. All students admitted to the program may spend the equivalent of two semesters completing an approved internship if necessary.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## **Executive Master of Hospitality Administration**

### **Plan Description**

The Master's of Hospitality Administration (MHA) degree is a 30-credit program designed to bring hospitality executives together to learn the latest management and leadership techniques in an executive format, via the Internet and other media. Demand determines the class schedule for the program.

Courses are taught entirely online—there is no requirement that any student come to the main UNLV campus (although all students are encouraged to participate in the graduation exercises). Courses are offered throughout the year in five eight-week sessions. Two sessions are scheduled during the fall and spring semesters and one during the summer semester. At least two required courses and two elective courses are offered during each session. The professional paper class is offered during the regular 16-weeks of the Fall and Spring semesters and for an extended time during the Summer semester to afford students time to complete their projects. The professional paper should adhere to the American Psychological Association's current publication manual regarding writing style and format.

In addition to regular tuition and fees, this program has an additional fee of \$510 per credit to cover the cost of delivery in an executive format. For more information, contact the program coordinator at (702) 895-5430.

For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.

### **Plan Admission Requirements**

Application deadlines

Applications available on the UNLV Graduate College website.

The student must satisfy the following admission requirements of the Graduate College and the William F. Harrah College of Hotel Administration.

1. A baccalaureate degree from an accredited college or university with an overall undergraduate grade point average of at least 2.75 on a 4.00 scale, or 3.00 or higher in the last two years of study.
2. A minimum of three years of full-time management experience in the hospitality industry.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

**IMPORTANT NOTE FOR INTERNATIONAL STUDENTS:** Because this program is offered totally online and is available anywhere in the world, UNLV cannot issue an I-20 and you cannot obtain a student visa to come to the United States based upon enrollment in the Master's of Hospitality Administration Program.

The following information to be submitted electronically to the Graduate College with your application:

1. Completed online application found in the upper right-hand column of the Graduate College home page.
2. Unofficial transcripts for all post-secondary schools attended.
3. Payment of application fees.
4. A brief essay of approximately 500 words outlining your career goals and how your hospitality employment background has prepared you for graduate study.
5. Résumé with employer references. The resume should clearly indicate job titles, place and date of employment and specific job responsibilities.
6. Three or more years of full-time experience in a management or administrative capacity in the hospitality industry.
7. Two letters of recommendation: You may upload contact information (name, address, phone, email) for a current or former employer and a college faculty member able to evaluate your potential for success in a

graduate program (two recommendations required). If you are no longer in touch with faculty members, two letters from employers will suffice. Your contacts will be sent an email with information on how to complete the online recommendation or where to mail a submission.

**NOTE:** Instead of the above, you may skip this section on the application and have your recommenders email their letters directly to [gael.hancock@unlv.edu](mailto:gael.hancock@unlv.edu).

**The following information to be submitted directly to the Harrah Hotel College Graduate Studies Office and the Graduate College:**

1. In addition to the electronic transcript(s) submitted to the Graduate College with your application, official copies of your transcripts must be mailed directly from the educational institution(s) to both the Graduate College and the Harrah Hotel College Graduate Studies Office.
2. Evaluation of Foreign Credentials (see #4 above)

**Notes:** Students are not required to take the GRE or the GMAT for entry into this program.

We will accept email submissions of the essay, resume and recommendation letters. However, recommendation letters must be emailed directly from the professor or employer, not forwarded by the prospective student.

### **Application Deadlines**

Refer to the Graduate College website for specific deadlines.

All required documentation and application materials must be received by the UNLV Graduate College and the Harrah Hotel College Graduate Studies Office by the listed deadline for the application to be considered.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

## Plan Requirements

Total Credits Required: 30

Course Requirements

### Required Courses – Credits: 15

MHA 603 - Human Resources and Behavior in the Hospitality Industry

MHA 605 - Financial Analysis for the Service Industries

MHA 640 - Marketing Systems

MHA 635 - Research Methodology

MHA 651 - Hospitality Service Management

### Elective Courses – Credits: 12

Complete four additional MHA courses:

MHA 538 - Fundamentals of Casino Operations

MHA 604 - Hospitality Organizational Behavior Issues

MHA 606 - Hospitality Revenue Management

MHA 607 - Hospitality Industry Cost Control

MHA 611 - Laws of Innkeeping and Food Service

MHA 616 - Principles and Practices in Hospitality Management

MHA 617 - Principles and Practices in Convention and Meetings Management

MHA 618 - Principles of Casino and Gaming Management

MHA 620 - Principles and Practices in Food Service Management

MHA 625 - Information Technology in the Hospitality Industry

MHA 626 - Sustainability in the Hospitality Industry

MHA 631 - Operational Analysis in Hospitality Management

MHA 638\* - Database Marketing for Hospitality and Tourism

MHA 641 - Dynamics of Tourism

MHA 642 - Customer Development Strategies for Casino & Gaming

MHA 644 - Online Training and Development

MHA 645 - Human Dynamics and Organizational Leadership

MHA 646 - Essentials of Negotiation in the Hospitality Industry

MHA 647 - Intercultural Communication in the

Hospitality Industry

MHA 653 - Event Management

MHA 654 - Risk Management: Safety and Security in Hospitality and Tourism

MHA 660 - Research Seminar in Hotel Administration

MHA 661 - Research Seminar in Food Service Administration

MHA 662 - Seminar in Hospitality Education

MHA 663 - Research Seminar in Casino and Gaming Management

MHA 675 - Seminar in Hospitality Finance

MHA 681 - Independent Study and Research

MHA 690 - Special Topics in Hospitality Management

### Culminating Experience – Credits: 3

Complete either a professional paper or hospitality entrepreneurship.

MHA 787 - Entrepreneurship in the Hospitality Industry

MHA 788 - Professional Paper

Degree Requirements

1. Students must successfully complete 30 credit hours of 500-/600-level course work in the MHA program in the William F. Harrah College of Hotel Administration. These credits will come from four elective courses, five required courses and a professional paper.
2. Students may take courses in any order with three exceptions: six or more credit hours must be completed before MHA 635 – Research Methods can be taken; MHA 635 – Research Methodology must be taken prior to the culminating experience, and it is recommended that the culminating experience be taken in the last semester of study. Students can schedule their individual programs with the MHA academic advisor.

### Plan Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for



- graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete a culminating experience.

## Master of Science - Hotel Administration

### Plan Description

The 36-hour Master of Science – Hotel Administration degree program will prepare you for a successful career as an upper-level executive in the hospitality industry or as an instructor/researcher in a hospitality education program. You can choose from several tracks of study including food service management, hotel management, hospitality education, convention and meetings management, or casino and gaming management.

Students have the opportunity to conduct research on a subject that interests them by writing a thesis or a professional paper. This decision will be based upon the student's goals and consultation with an academic advisor. Copies of the completed thesis must meet the guidelines of the UNLV Graduate College and be completed according to published deadlines.

For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.

### Plan Admission Requirements

Application deadlines

Applications available on the UNLV Graduate College website.

The student must satisfy the minimum admission requirements of the UNLV Graduate College and the William F. Harrah College of Hotel Administration, including:

1. Submission of a completed online application form and required admission fee.
2. Submission of two copies of official transcripts from all institutions attended after high school. One copy should be sent directly from the institution attended to the UNLV Graduate College and another one to the Harrah Hotel College Graduate Studies Office. Please note: it is a requirement of the UNLV Graduate College that students with class credits and/or degrees from

educational institutions outside the United States must provide a course-by-course evaluation of those credentials by a Graduate College approved NACES Evaluation Agency. This is to obtain an evaluation of the courses, verification of degrees, and establish accreditation of the schools and/or universities. A copy of this evaluation should be sent to both the UNLV Graduate College and the Harrah Hotel Graduate Studies Office. Unofficial copies of transcripts may be uploaded with the online application form.

3. A baccalaureate degree from an accredited institution with a minimum overall GPA of 2.75 on a 4.00 scale, or 3.00 in the last two years of study.
4. A satisfactory composite score on the Graduate Record Examination (GRE) (institution code 4861), with a minimum score of 155 on the quantitative portion and 148 on the verbal portion of the exam., or the Graduate Management Admissions Test (GMAT) (department code ZSC-37-21), minimum score 550 with at least 25% on the verbal portion. All scores must be sent directly from the testing center to the Harrah Hotel College Graduate Studies Office.
5. A minimum of one year of full-time work experience in a management/supervisory capacity in the hospitality industry, or three years of full-time, front-line experience.
6. A brief essay of approximately 500 words outlining the applicant's career goals and how the applicant's hospitality employment background has prepared him/her for graduate study.
7. Two letters of recommendation, one from a current or former employer and one from a college faculty member able to evaluate the applicant's potential for success in a graduate program. If the applicant is no longer in touch with faculty members, letters from two employers will suffice.
8. A current resume with employer references. The resume should clearly indicate job titles, places and dates of employment, and specific job responsibilities.

9. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Items 6, 7, and 8 above can be submitted to the Harrah Hotel College Graduate Studies Office by email or mail. Recommendation letters must be mailed or emailed directly from the employer or professor, not forwarded by the applicant.

Application Deadline: Refer to the Graduate College website for specific deadlines.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Thesis Track**

Total Credits Required: 36

Course Requirements

### **Required Courses – Credits: 24**

HOA 703 - Human Resources Management in the Hospitality Industry

HOA 705 - Financial Analysis for the Service Industries

HOA 711 - Laws of Innkeeping and Food Service

HOA 730 - Statistical Analysis for Hospitality

HOA 731 - Operational Analysis in Hospitality Management

HOA 735 - Research Methodology

HOA 740 - Marketing Systems

HOA 777 - Critical Issues in Hospitality Management

### **Management Elective Course – Credits: 3**

Complete one of the following courses:

HOA 716 - Principles and Practices in Hotel Management

HOA 717 - Principles and Practices in Convention and Meetings Management

HOA 718 - Principles of Casino and Gaming Management

HOA 720 - Principles and Practices in Food Service Management

**Supporting Elective Course – Credits: 3**

Complete three credits of advisor-approved elective coursework.

**Thesis – Credits: 6**

HOA 789 - Thesis

**Degree Requirements**

1. Successfully complete a minimum of 36 graduate-level credit hours, of which no less than 24 are in Hotel Administration. This allows for a variety of supplemental tracks including business and education. At least 27 credits must be at the 700-level.
2. An oral examination is required of all candidates for the M.S. degree.
3. Successfully complete supplemental courses as required by the academic advisor, if the student's undergraduate preparation is insufficient. Generally, no more than six credits of supplementary courses will be required.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. In addition to the academic requirements, the Harrah Hotel College requires 500 hours of acceptable employment experience in the hospitality industry. The work experience requirement requires the student to find employment, but carries no academic credit and may be earned outside Nevada and during the summer. This work experience will be evaluated qualitatively as well as

quantitatively, and may be waived at the discretion of the program coordinator.

International students must go to the Office of International Students and Scholars to verify employment eligibility.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

**Subplan 2 Requirements: Professional Paper Track**

Total Credits Required: 36

**Course Requirements**

**Required Courses – Credits: 24**

HOA 703 - Human Resources Management in the Hospitality Industry

HOA 705 - Financial Analysis for the Service Industries

HOA 711 - Laws of Innkeeping and Food Service

HOA 730 - Statistical Analysis for Hospitality

HOA 731 - Operational Analysis in Hospitality Management

HOA 735 - Research Methodology

HOA 740 - Marketing Systems

HOA 777 - Critical Issues in Hospitality Management

**Management Elective Course – Credits: 3**

Complete one of the following courses:

HOA 716 - Principles and Practices in Hotel Management

HOA 717 - Principles and Practices in Convention

and Meetings Management  
HOA 718 - Principles of Casino and Gaming  
Management  
HOA 720 - Principles and Practices in Food Service  
Management

### **Supporting Elective Courses – Credits: 6**

Complete six credits of advisor-approved elective coursework.

### **Professional Paper – Credits: 3**

HOA 788 - Professional Paper

### **Degree Requirements**

1. Successfully complete a minimum of 36 graduate-level credit hours, of which no less than 24 are in Hotel Administration. This allows for a variety of supplemental tracks including business and education. At least 27 credits must be at the 700-level.
2. An oral examination is required of all candidates for the M.S. degree.
3. Successfully complete supplemental courses as required by the academic advisor, if the student's undergraduate preparation is insufficient. Generally, no more than six credits of supplementary courses will be required.
4. In addition to general academic requirements, the Harrah College of Hotel Administration requires 500 hours of acceptable employment in the hospitality industry. This work experience will be evaluated qualitatively as well as quantitatively. The work experience requirement may be met during the school year or in summers. International students must go to the Office of International Students and Scholars to verify employment eligibility. The work experience requirement requires the student to find a paid job but carries no academic credit and may be earned anywhere.

### **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for

graduation up to two semesters prior to completing his/her degree requirements.

2. The student must successfully complete a professional paper.

### **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## William F. Harrah College of Hotel Administration Courses

### HOA 501 - Hotel Law

Credits 3

Legal aspects of the owner/customer relationship with particular attention to personal and property liability in the hospitality industry.

**Formerly** HOA 601

**Notes** This course is crosslisted with HMD 401. Credit at the 500-level requires additional work.

### HOA 502 - Employment Law in the Hospitality Industry

Credits 3

Covers all significant state and federal laws applicable to employment relationships found in hospitality businesses and studies effective methods of managing hospitality employees in compliance with applicable employment laws. Students learn to effectively identify, evaluate and resolve employment law issues and liabilities commonly encountered by hospitality businesses.

**Formerly** HOA 602

**Notes** This course is crosslisted with HMD 402. Credit at the 500-level requires additional work.

### HOA 507 - Organizational Theory Applied to the Service Industries

Credits 3

Focuses on developing management skills through the study and application of theories of human behavior, particularly in service organizations. Areas addressed include: working with/through others, communication, coaching and counseling, providing feedback, goal setting, stress management, creative problem solving, motivation, power, conflict management, and group dynamics and developing effective teams.

**Formerly** HOA 607

**Notes** This course is crosslisted with HMD 407. Credit at the 500-level requires additional work.

### HOA 508 - Labor Management Relations

Credits 3

Analysis of labor-management relations in the hospitality industry at the employee, unit, and strategic levels. Development of written and verbal communication and problem identification/ solving

skills via environmental analysis (historical, legal, social and technological). Other areas include: contract negotiation and administration, union-management cooperative efforts, and strategic labor management decision-making.

**Formerly** HOA 608

**Notes** This course is crosslisted with HMD 408. Credit at the 500-level requires additional work.

### HOA 509 - Hospitality Security/Risk

Credits 3

Analysis of contemporary risk management and security concerns specific to hospitality and gaming industries; encompassing lodging, food and beverage, casinos, events, and clubs. Includes development of security and risk management strategies for asset protection, loss prevention, disaster control, crisis management, industrial safety, casino security, and emergency action planning.

**Formerly** HOA 510

**Notes** This course is crosslisted with HMD 410. Credit at the 500-level requires additional work.

### HOA 521 - Market and Feasibility Studies

Credits 3

Graduate credit may be obtained for courses designated 500 or above. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Formerly** HOA 621

**Notes** Credit at the 500-level requires additional work.

### HOA 522 - Staff Planning and Operational Analyses

Credits 3

Graduate credit may be obtained for courses designated 500 or above. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Formerly** HOA 622

**Notes** Credit at the 500-level requires additional work.

### HOA 525 - Computer Application to the Hospitality

Credits 3

Graduate credit may be obtained for courses designated 500 or above. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Formerly** HOA 625

**Notes** Credit at the 500-level requires additional work.

HOA 526 - Accounting for the Casino Hotel  
Credits 3

Detailed examination of accounting systems, procedure, and controls peculiar to casinos required by both management and government for internal auditing, financial reporting, and governmental control.

**Formerly** HOA 626

**Notes** This course is crosslisted with GAM 426. Credit at the 500-level requires additional work.

HOA 536 - Mathematics of Casino Games  
Credits 3

Graduate credit may be obtained for courses designated 500 or above. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Formerly** HOA 636

**Notes** Credit at the 500 level normally requires additional work.

HOA 537 - Gaming Regulations and Control  
Credits 3

Nevada's system of gaming regulation and control provides a model for studying the history, purpose, politics, methods, and limitations — both practical and legal — of governmental regulation and control of legal gambling.

**Formerly** HOA 637

**Notes** This course is crosslisted with GAM 437. Credit at the 500-level requires additional work.

HOA 540 - Casino Marketing  
Credits 3

Marketing concepts as applied to the gaming industry.

**Formerly** HOA 640

**Notes** This course is crosslisted with GAM 440. Credit at the 500-level requires additional work.

HOA 542 - Sociology of Gambling  
Credits 3

Analysis of patterns of participation in various forms of gambling; political/economic background of gambling; effects of gambling on communities, lifestyles, and value systems.

**Formerly** HOA 642

**Notes** This course is crosslisted with GAM 442, SOC 442 and SOC 642. Credit at the 500 and 600-level requires additional work.

HOA 549 - International Tourism  
Credits 3

Study of international travel and tourism. Focuses on the economic, social, political, and environmental considerations of international tourism management and development.

**Formerly** HOA 649

**Notes** This course is crosslisted with TCA 449. Credit at the 500-level requires additional work.

HOA 553 - Management of Hospitality Service  
Delivery System

Credits 3

Evaluation, design, and management of service delivery systems through operations management topics from a service perspective. Included are other related topics such as customer satisfaction and managing organizational change.

**Formerly** HOA 653

**Notes** This course is crosslisted with HMD 453. Credit at the 500-level requires additional work.

HOA 555 - Hotel Administration Seminar  
Credits 3

Study and discussion of current problems in the hospitality industry using case studies, individual research, and guests.

**Formerly** HOA 655

**Notes** This course is crosslisted with HMD 455. Credit at the 500-level requires additional work.

HOA 556 - Employee Development  
Credits 3

Stresses the techniques in planning, developing, and conducting training programs in food service and lodging firms.

**Formerly** HOA 656

**Notes** This course is crosslisted with HMD 456. Credit at the 500-level requires additional work.

HOA 560 - Facilities Planning and Equipment  
Credits 3

Graduate credit may be obtained for courses designated 500 or above. A full description of this course may be found in the Undergraduate Catalog

under the corresponding 400 number.

**Formerly** HOA 660

**Notes** Credit at the 500 level normally requires additional work.

HOA 570 - Quantitative Methods and Applications in Casino Gaming

Credits 3

Develops the techniques and methods for computing the probabilities, expected values, and house percentages of casino games and analyzes the effects of changes in playing rules and payoff odds.

**Formerly** HOA 670

**Notes** This course is crosslisted with GAM 470. Credit at the 500-level requires additional work.

HOA 571 - Practicum in Hotel Education

Credits 3

Graduate credit may be obtained for courses designated 500 or above. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Formerly** HOA 671

**Notes** Credit at the 500 level normally requires additional work.

HOA 574 - Seminar in Hotel Research

Credits 3

For descriptions of 500-level courses, please consult the current Undergraduate Catalog where they are listed as 400-level courses.

**Formerly** HOA 674

**Notes** Credit at the 500 level usually requires additional work.

HOA 587 - Association Management

Credits 3

**Formerly** HOA 687

HOA 703 - Human Resources Management in the Hospitality Industry

Credits 3

Examines the functions of human resource management through readings, cases and applied research with special attention to strategic HR alliances and developing trends.

HOA 705 - Financial Analysis for the Service Industries

Credits 3

Problems and cases in applying accounting and financial information to executive decision making in the hospitality industry.

**Prerequisites** Adequate preparation in accounting.

HOA 711 - Laws of Innkeeping and Food Service

Credits 3

Examines through case studies and discussion the modern application of the laws of innkeeping using a historical perspective.

HOA 716 - Principles and Practices in Hotel Management

Credits 3

Examination of the mechanisms and techniques employed in the management of hotel/motel companies. Comparisons, case studies, and selected topics focus on equity structures, operations, marketing, and systems for a variety of public and private operations.

HOA 717 - Principles and Practices in Convention and Meetings Management

Credits 3

Examination of the mechanisms and techniques employed in the management of convention and meeting industries. Comparisons, case studies, and selected topics focus on equity structures, operations, marketing, and systems for a variety of convention and meetings management issues.

HOA 718 - Principles of Casino and Gaming Management

Credits 3

Examination of the mechanisms and techniques employed in the management of casino companies. Comparisons, case studies and selected topics focus on organization and department policies, production processes, manpower development, scheduling, and marketing for a variety of operating systems.

**Prerequisites** Consent of instructor.

HOA 720 - Principles and Practices in Food Service Management

Credits 3

Examination of the mechanisms and techniques employed in the management of food service companies. Comparisons, case studies, and selected topics focus on equity structures, operations, multiunits, marketing, and systems for a variety of

public and private operations.

**Prerequisites** HOA 461 or equivalent.

HOA 721 - Issues in Women's Nutrition  
Credits 3

Advanced discussion of how nutrition affects the physical and mental health of women throughout the life cycle and how to evaluate the validity of nutrition research as it relates to the needs of women rather than the general population.

HOA 725 - Information Technology in the Hospitality Industry  
Credits 3

Examines the current level of technology use, explores the potential uses of existing technology, and discusses new technologies in the hospitality industry.

**Prerequisites** Consent of instructor.

HOA 730 - Statistical Analysis for Hospitality  
Credits 3

Introduction to the use of statistical techniques with emphasis on applications for the hospitality industry.

HOA 731 - Operational Analysis in Hospitality Management  
Credits 3

Research design, operations analysis, and the application of analytical models for the hotel and food service industry.

**Formerly** (HOA 701)

**Prerequisites** HOA 730

HOA 732 - Advanced Statistics in R for Hospitality and Business  
Credits 3

Advanced statistical methods for analyzing time series data, including seasonal and non-seasonal ARIMA modeling. Statistical analysis of panel data (aka longitudinal or cross-sectional time-series data), which is a time series data for several entities, will also be covered. The statistical programming language R will be used in this class.

**Prerequisites** HOA 730 or equivalent.

HOA 735 - Research Methodology  
Credits 3

Examination of research methods including: the scientific method, literature review, sampling,

statistics, research design, and analytical technique.

**Notes** If you are following the thesis option, you must take 3 credits of HOA 799 in conjunction with this class.

**Prerequisites** Graduate standing.

HOA 738 - Database Marketing for Hospitality and Tourism  
Credits 3

Provides students with a working knowledge of database marketing in the hospitality and tourism industries. Database marketing is an information-driven process of compiling detailed information about customers, leads, and prospects and using that information to segment and target individual customers with appropriate sales-oriented materials.

HOA 739 - Psychology of Hospitality Marketing  
Credits 3

Research in neurology, biology, and cognitive science is changing the way researchers approach how people think and behave. This class introduces students to new ways of viewing cognition and to help graduate students apply these new views as they develop their own research programs.

HOA 740 - Marketing Systems  
Credits 3

Development of marketing and advertising systems for hospitality industries based on both the need to create new markets and the need to respond to significant shifts in social and economic patterns.

HOA 741 - Dynamics of Tourism  
Credits 3

Examines major components of international and domestic tourism systems, including socio-economic effects. Legal and environmental problems, and managerial and planning functions.

HOA 742 - Customer Development Strategies for the Casino and Gaming Industry  
Credits 3

Analyzing marketing and promotional strategies utilized by the casino industry and developing understanding of valuate techniques that facilitate managerial decision making concerning these strategies.

**Prerequisites** HOA 718 or consent of instructor.



HOA 743 - Professional Training Applications

Credits 3

Prepares students to plan, create, and conduct management and employee development programs. Process of learning essentials of training and presentation skill and management concepts.

**Notes** Students work with industry professionals.

HOA 744 - Online Training and Development

Credits 3

Concepts, principles, and techniques of online training. Emphasizes transfer of knowledge acquisition via online learning. Development of online training programs.

HOA 745 - Human Dynamics and Organizational Leadership

Credits 3

Provides students with knowledge, skills and attitudes necessary to undertake leadership responsibilities in complex organizations. Applies concepts and methodologies from social and behavioral sciences in the analysis of leadership behavior in diverse organizational and community settings.

**Same as** (EDA 745 and BUS 745)

HOA 751 - Hospitality Service Management

Credits 3

Examines service marketing and management concepts relevant to the hospitality industry and explores how these concepts can be applied to service delivery systems in the hospitality industry.

HOA 756 - Culinary Arts Instruction

Credits 1

Practical methods for improving culinary curriculum and instruction. Methods of instruction for culinary theory, cooking methods, mise en place, food service sanitation, menu development, culinary math, and food and beverage trends.

HOA 757 - Restaurant Management Instruction

Credits 1

Practical methods for introducing restaurant management skills into the curriculum. Methods for instruction of food service purchasing and purchasing formulas, dining room service techniques, managing service, suggestive selling, advanced culinary

techniques, and revenue management.

**Prerequisites** HOA 756

HOA 758 - Advanced Culinary Instructional Techniques

Credits 1

Methods for introducing advanced culinary techniques into the curriculum. Methods for instruction of baking pastries and cakes, use of baking equipment, basic garde manger and food presentation skills.

**Prerequisites** HOA 757

HOA 759 - Advanced Food Service Management Instruction

Credits 1

Practical methods for introducing advanced food service management into the curriculum. Capstone course for the food service management instructional series. Organization, design, and management of the different styles of restaurant operations.

**Prerequisites** HOA 758

HOA 760 - Research Seminar in Hotel Administration

Credits 3

Student solutions to situation incidents and case studies in the lodging segment of the hospitality industry. Alternate semesters treat different topics.

**Notes** May be repeated once with consent of advisor and instructor.

**Prerequisites** Six graduate credits in hotel administration.

HOA 761 - Research Seminar in Food Service Administration

Credits 3

Student solutions to incidents and case studies in the food segment of the hospitality industry. Alternate semesters treat different topics.

**Notes** May be repeated once with consent of advisor and instructor.

**Prerequisites** Six graduate credits in hotel administration.

HOA 763 - Research Seminar In Casino and Gaming Management

Credits 3

Student solutions to situations, incidents and case studies in the casino segment of the hospitality

industry. Alternate semesters treat different topics.  
**Notes** May be repeated once with consent of advisor and instructor.

**Prerequisites** Six graduate credits in hotel administration including HOA 718.

HOA 764 - Research Seminar in Convention Management  
Credits 3

Designed around student solutions to situations, incidents, and case studies in convention, meeting, and exhibition management. Comprehensive and application of research to practical and theoretical issues in convention management will be emphasized. Alternate semesters treat different topics.

**Prerequisites** Six graduate credits in hotel administration.

HOA 775 - Seminar in Hospitality Finance  
Credits 3

Analysis and application of financial theories to hospitality firms and industry.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** HOA 705, FIN 701 or equivalent.

HOA 777 - Critical Issues in Hospitality Management  
Credits 3

Provides the opportunity to identify, explore, discuss, and analyze current critical issues and events important to the hospitality industry. Students communicate in research and writing the essence of a critical issue and prepare a verbal presentation to communicate a critical issue.

**Notes** May be repeated to a maximum of six credits.

HOA 781 - Independent Study and Research  
Credits 1 – 3

Consultation course consisting of individual student effort under guidance of the instructor. Students assigned to or request assignment to specific problems in hospitality management on the basis of interest and preparation.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor and graduate program director.

HOA 782 - Advanced Independent Study and Research

Credits 3

Consultation course consisting of individual student effort under guidance of the instructor. Students conduct independent research in their major area or work on the analysis of a problem for a hospitality organization.

**Prerequisites** Doctoral student.

HOA 783 - Internship  
Credits 1 – 3

Field experience in a variety of hospitality related industries that focus on management or application of specific skills within a discipline. Must be consistent with the student's area of specialization and conducted under the guidance of a graduate faculty member.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor and graduate program director.

HOA 787 - Entrepreneurship in the Hospitality Industry  
Credits 3

Comprehensive coverage of various tools, documents, and subject materials utilized to start and maintain a small hospitality business. Includes entrepreneurial perspectives, challenges, characteristics, self-assessment; starting a new venture; developing business idea and business/marketing/financial organizational plans; and financing and managing the new venture. Other issues include legal, franchising, and international entrepreneurship.

**Prerequisites** HOA 703, HOA 740 or MBA 767, HOA 705 or MBA 765.

HOA 788 - Professional Paper  
Credits 3

Professional paper whose contents serve as the focus for the final oral examination.

**Formerly** HOA 791

**Notes** May be enlarged in scope and purpose for thesis credit. 3 credits.

HOA 789 - Thesis  
Credits 3 – 6

Students may enroll in 3 credits per semester.

**Formerly** HOA 799

**Notes** A total of six credits are required for the thesis.

**Grading**

S/F grading only.

**Prerequisites** HOA 735

HOA 790 - Special Topics in Hospitality  
Management

Credits 1 – 6

Eclectic approach to special problem areas of current interest employing individual and group research.

**Notes** May be repeated once with consent of advisor and instructor.

**Prerequisites** Six graduate credits in hotel administration.

HOA 794 - Issues and Trends for Hospitality  
Educators

Credits 1

Explores issues and trends in hospitality education.

**Formerly** HOA 779

**Notes** May be repeated to a maximum of three credits.

**Prerequisites** Doctoral student.

HOA 795 - Research Seminar in Hospitality  
Education

Credits 3

Exploration of problems related to programs and techniques of teaching in food service and lodging education, with emphasis upon the means of improving curriculum and instruction.

**Formerly** HOA 762

**Notes** May be repeated once with consent of advisor and instructor.

**Prerequisites** Six graduate credits in hotel administration.

HOA 796 - Advanced Research Methodology  
Credits 3

Fundamental principles of multivariate data analysis, including the mathematics behind the statistical techniques studied. Examination of quantitative research methods including sample size determination, validity, reliability and detection and handling of outliers.

**Formerly** HOA 736

**Prerequisites** EPY 722

HOA 797 - Philosophy of Science in Hospitality  
Research

Credits 3

Exploration of the philosophical and sociological

context of research, including different epistemologies, ontologies, and images of human nature and their influence on conceptualizing and designing research, collecting and understanding data, and disseminating findings. Implications and consequences of alternative approaches and perspectives of inquiry examined.

**Formerly** HOA 737

HOA 798 - Readings in Hospitality Management  
Credits 3

Provides students with a knowledge and understanding of important research in their area of interest.

**Formerly** HOA 778

**Prerequisites** Doctoral student or consent of instructor.

HOA 799 - Dissertation  
Credits 3 – 12

Dissertation Research.

**Formerly** HOA 798

**Notes** 3-12 credits in three-credit increments.

**Grading**

S/F grading only.

**Prerequisites** Graduate standing in Ph.D. program and consent of advisor.

MHA 538 - Fundamentals of Casino Operations  
Credits 3

Provides students with basic casino table games and slot department management operational procedures. It shows the relationship between these departments and other hotel/casino departments. By the end of this course, students will understand state of the art casino operations management methods.

MHA 603 - Human Resources and Behavior in the  
Hospitality Industry

Credits 3

Examines the functions of human resource management through readings, cases and applied research with special attention to strategic HR alliances and developing trends.

**Formerly** MHA 703

MHA 604 - Hospitality Organizational Behavior  
Issues

Credits 3

This course focuses on developing management skills

through the study and application of theories of human behavior, particularly in service organizations. Areas addressed include: working with/through others, communication, coaching and counseling, providing feedback, goal setting, stress management, creative problem solving, motivation, power, conflict management, group dynamics and developing effective teams.

**MHA 605 - Financial Analysis for the Service Industries**

Credits 3

Problems and cases in applying accounting and financial information to executive decision making in the hospitality industry.

**Formerly MHA 705**

**MHA 606 - Hospitality Revenue Management**

Credits 3

This course deals with the theory and practice of operational and strategic revenue management policy and problems in the hospitality industry. It briefly examines the critical areas of yield management and revenue maximization in the context of hospitality and tourism industry. Emphasis is placed upon current issues in revenue management systems.

**Formerly MHA 706**

**MHA 607 - Hospitality Industry Cost Control**

Credits 3

Course examines: types and nature of costs in hotels and restaurants, the role of cost control in gaining competitive advantage, the application of food and beverage cost control methods, cost forecasting approaches, Cost Volume Profit analyses, Activity Based Cost, and an introduction to energy and utility cost control.

**MHA 611 - Laws of Innkeeping and Food Service**

Credits 3

Examines through case studies and discussion the modern application of the laws of innkeeping using a historical perspective.

**Formerly MHA 711**

**MHA 616 - Principles and Practices in Hospitality Management**

Credits 3

Examination of the management techniques employed in hospitality companies. Comparisons,

case studies, and selected topics focus on management systems for a variety of public and private operations.

**Formerly MHA 716**

**MHA 617 - Principles and Practices in Convention and Meetings Management**

Credits 3

Examination of the mechanisms and techniques employed in the management of convention and meeting industries. Comparisons, case studies, and selected topics focus on equity structures, operations, marketing, and systems for a variety of convention and meetings management issues.

**Formerly MHA 717**

**MHA 618 - Principles of Casino and Gaming Management**

Credits 3

Examination of the mechanisms and techniques employed in the management of casino companies. Comparisons, case studies and selected topics focus on organization and department policies, production processes, manpower development, scheduling, and marketing for a variety of operating systems.

**Formerly MHA 718**

**MHA 620 - Principles and Practices in Food Service Management**

Credits 3

Examination of the mechanisms and techniques employed in the management of food service companies. Comparisons, case studies, and selected topics focus on equity structures, operations, multiunits, marketing, and systems for a variety of public and private operations.

**Formerly MHA 720**

**MHA 625 - Information Technology in the Hospitality Industry**

Credits 3

Examines the current level of technology use, explores the potential uses of existing technology, and discusses new technologies in the hospitality industry.

**Formerly MHA 725**

**MHA 626 - Sustainability in the Hospitality Industry**

Credits 3

An examination of sustainability practices in hotels,

restaurants, and other hospitality facilities. Topics covered include material use, waste reduction, and recycling; water conservation; energy management; site selection and green building design, and indoor environmental quality issues. A special emphasis is placed on certifications and certifying organizations.

**Formerly MHA 726**

**MHA 630 - Statistical Analysis for Hospitality**  
Credits 3

Introduction to the use of statistical techniques with emphasis on applications for the hospitality industry.

**MHA 631 - Operational Analysis in Hospitality Management**  
Credits 3

Research design, operations analysis, and the application of analytical models for the hotel and food service industry.

**Formerly MHA 601, MHA 731**

**MHA 635 - Research Methodology**  
Credits 3

Examination of research methods including the scientific method, literature review, sampling, statistics, research design and analytical technique.

**Formerly MHA 735**

**Prerequisites** Six or more credits in the MHA program.

**MHA 638\* - Database Marketing for Hospitality and Tourism**  
Credits 3

Provides students with a working knowledge of database marketing in the hospitality and tourism industries. Database marketing is an information-driven process of compiling detailed information about customers, leads, and prospects and using that information to segment and target individual customers with appropriate sales-oriented materials.

**MHA 640 - Marketing Systems**  
Credits 3

Development of marketing and advertising systems for hospitality industries based on both the need to create new markets and the need to respond to significant shifts in social and economic patterns.

**Formerly MHA 740**

**MHA 641 - Dynamics of Tourism**  
Credits 3

Examines major components of international and domestic tourism systems, including socio-economic effects. Legal and environmental problems, and managerial and planning functions.

**Formerly MHA 741**

**MHA 642 - Customer Development Strategies for Casino & Gaming**  
Credits 3

Analyzing marketing and promotional strategies utilized by the casino industry and developing understanding of evaluative techniques that facilitate managerial decision making concerning these strategies.

**Formerly MHA 742**

**MHA 643 - Talent Acquisition in the Hospitality Industry**  
Credits 3

Course examines the tactical processes and strategic implications of recruiting, interviewing, selecting and orienting new employees within the hospitality industry. The assessment of relevant skill sets of applicants matched to the strategic needs of the organization is a focus of the course.

**Prerequisites** MHA 603.

**MHA 643 - Talent Acquisition in the Hospitality Industry**  
Credits 3

Course examines the tactical processes and strategic implications of recruiting, interviewing, selecting and orienting new employees within the hospitality industry. The assessment of relevant skill sets of applicants matched to the strategic needs of the organization is a focus of the course.

**Prerequisites** MHA 603

**MHA 644 - Online Training and Development**  
Credits 3

Concepts, principles, and techniques of online training. Emphasizes transfer of knowledge acquisition via online learning. Development of online training programs.

**Formerly MHA 744**

**MHA 645 - Human Dynamics and Organizational Leadership**

Credits 3

Provides students with knowledge, skills and attitudes necessary to undertake leadership responsibilities in complex organizations. Applies concepts and methodologies from social and behavioral sciences in the analysis of leadership behavior in diverse organizational and community settings.

**Formerly MHA 745**

MHA 646 - Essentials of Negotiation in the Hospitality Industry

Credits 3

This course explores the major concepts and theories of the psychology of bargaining and negotiation, and the dynamics of interpersonal and inter-group conflict and its resolution. Course concepts will be applied to situations within the hospitality industry.

**Formerly MHA 746**

MHA 647 - Intercultural Communication in the Hospitality Industry

Credits 3

Explores communication, culture, and social dynamics internal and external to hospitality organizations within an international context.

**Formerly MHA 747**

MHA 651 - Hospitality Service Management

Credits 3

Examines service marketing and management concepts relevant to the hospitality industry and explores how these concepts can be applied to service delivery systems in the hospitality industry.

**Formerly MHA 751**

MHA 653 - Event Management

Credits 3

This course offers an analysis of the fundamental issues that arise in managing meetings, conferences, and conventions, and the skills, tools, and resources necessary for site selection, program planning and management, exhibits, selection and use of facility, volunteers, and budget management.

**Formerly MHA 753**

MHA 654 - Risk Management: Safety and Security in Hospitality and Tourism

Credits 3

Natural disasters, terrorism, fire, boycotts, lawsuits

and transportation or utility interruptions can have negative effects on hospitality and tourism. This course addresses preparing for, managing, and recovering from major and minor realized risks. Managing risk using risk management teams, contingency plans, contract language, and insurance will be discussed.

**Formerly MHA 754**

MHA 655 - Meeting and Convention Management

Credits 3

**Formerly MHA 755**

MHA 660 - Research Seminar in Hotel Administration

Credits 3

Student solutions to situation incidents and case studies in the lodging segment of the hospitality industry. Alternate semesters treat different topics.

**Formerly MHA 760**

MHA 661 - Research Seminar in Food Service Administration

Credits 3

Student solutions to incidents and case studies in the food segment of the hospitality industry. Alternate semesters treat different topics.

**Formerly MHA 761**

MHA 662 - Seminar in Hospitality Education

Credits 3

This course covers: overview of the history, organization, and administration of higher education and hospitality management programs, differences between types of degree programs and sources of funding, improving curriculum and instruction for both classroom and distance learning. The course will also investigate the role of faculty members in non-instructional activities.

MHA 663 - Research Seminar in Casino and Gaming Management

Credits 3

Student solutions to situations, incidents and case studies in the casino segment of the hospitality industry. Alternate semesters treat different topics.

**Formerly MHA 763**

MHA 675 - Seminar in Hospitality Finance

Credits 3

Analysis and application of financial theories to hospitality firms and industry.

**Formerly** MHA 775

MHA 681 - Independent Study and Research  
Credits 1-3

Consultation course consisting of individual student effort under guidance of the instructor. Students assigned to or request assignment to specific problems in hospitality management on the basis of interest and preparation.

**Formerly** MHA 781

MHA 690 - Special Topics in Hospitality Management  
Credits 3

Eclectic approach to special problem areas of current interest employing individual and group research.

**Formerly** MHA 790

**Notes** May be repeated multiple times.

MHA 787 - Entrepreneurship in the Hospitality Industry  
Credits 3

Comprehensive coverage of various tools, documents, and subject materials utilized to start and maintain a small hospitality business. Includes entrepreneurial perspectives, challenges, characteristics, self-assessment; starting a new venture; developing business idea and business/marketing/financial organizational plans; and financing and managing the new venture. Other issues include legal, franchising, and international entrepreneurship.

**Prerequisites** MHA 603, MHA 605, MHA 651, MHA 640.

MHA 788 - Professional Paper  
Credits 3

Professional paper whose contents serve as a capstone research experience based on a current hospitality topic or problem in the industry. The outcome of this final requirement for the degree is a publishable paper.

**Formerly** MHA 691, MHA 791, MHA 688

**Prerequisites** MHA 635

SLS 550 - Administration of Recreation and Leisure Services  
Credits 3

Comprehensive examination of the philosophical, legal, financial, and administrative foundations necessary for management personnel in a public, not-for-profit or commercial leisure service organization.

**Formerly** SLS 650

SLS 700 - Special Problems in Sport and Leisure  
Credits 3

Specialized instruction and/or research designed to develop depth in understanding a current problem in sport and leisure.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor.

SLS 701 - Independent Study  
Credits 1 – 3

Independent study of a selected topic in sport or leisure service management or leisure behavior.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor.

SLS 702 - Management in Sport and Leisure Service Organizations  
Credits 3

Utilizes management theory in conjunction with theory of sport and leisure behavior to develop a philosophy of administration applicable to sport and leisure service organizations.

SLS 703 - Management Analysis of Sport and Leisure Service Organizations  
Credits 3

Analysis of how the financial resources needed to operate sport and leisure service facilities and programs are acquired and marshaled to realize organizational goals. Marketing strategies and revenue source specific to sport and leisure services analyzed and discussed.

**Prerequisites** SLS 702

SLS 704 - Management Internship  
Credits 3

Structured management internship in a sport or leisure service organization which focuses on specific administrative functions under the supervision of an agency manager and a university advisor.

**Prerequisites** SLS 703 and approval of student's advisor.

SLS 716 - Social Psychology of Sport and Leisure  
Credits 3

Introduces and examines the theories of sport and leisure behavior from a social psychological perspective. Issues and outcomes of involvement in sport and leisure activities for the individual as well as organized groups.

SLS 717 - Law and Liability in Sport and Leisure Services  
Credits 3

Explores the legal principles and rules of law affecting the administration of recreation, sports and athletic programs. Emphasis on risk management theory, safety principles, insurance concepts and liability issues. Litigation trends identified and procedures outlined to minimize legal risks.

SLS 718 - Programming for Sport and Leisure Service Organizations  
Credits 3

Theoretical and conceptual aspects of comprehensive programming for sport and leisure service organizations. Includes program development theories, program design concepts, advertising, promotion and evaluation procedures.

SLS 748 - Professional Paper  
Credits 3

Under the direction of a faculty advisor, the student develops a written treatise detailing the application of a principle or theory to the solution of a current problem of professional practice in the management of sport and leisure service.

**Grading**

S/F grading only.

**Prerequisites** Consent of instructor.

SLS 749 - Thesis  
Credits 3

Under the direction of a faculty advisor, students develop a written treatise detailing their methodical investigation and exposition of a theory or principle related to the management of sport and leisure service.

**Notes** May be repeated to a maximum of six credits.

**Grading**

S/F grading only.

**Prerequisites** Consent of instructor.



## **William S. Boyd School of Law**

The William S. Boyd School of Law, which commenced classes in August 1998, is the first state-supported law school in Nevada history, and the only law school in the state. The school offers three juris doctor degree programs: a part-time evening program, a part-time day program, and a full-time, day program and three dual degree programs: a J.D./M.B.A., J.D./M.S.W. and J.D./Ph.D. in Education. These programs are designed to train ethical and effective lawyers and leaders for Nevada and for the legal profession. The curriculum is designed to stress professionalism, community service, and dispute avoidance/dispute resolution through a combination of skills training and traditional pedagogy and exposure to different public policy players and sources of law. More information is available on the Boyd School of Law website: <http://www.law.unlv.edu>.

The mission of the William S. Boyd School of Law is to prepare students for the competent and ethical practice of law. At the same time, the Boyd School of Law recognizes that the skills and knowledge acquired in the juris doctor program may be transferred easily to other fields of endeavor and that many students seek legal training for the value it may have in pursuits other than the practice of law. The Boyd School of Law is dedicated to preserving, transmitting, and advancing the current state of legal knowledge, to developing programs which meet the changing needs of society, and to encouraging its graduates to apply the knowledge they gain for their own personal development and for the good of society. The curriculum responds to the needs of the students as well as the needs of the profession. In the early stages of legal education, the curriculum stresses professionalism, community service, and the roles and importance of lawyers in our society, all in an effort to acquaint students with the nature and nobility of the legal profession and with the opportunity that lawyers have to improve the society in which they live. Throughout the curriculum, emphasis is placed on writing, professionalism and community service. In its clinical and externship programs, the law school provides students with the opportunity of a substantial lawyering experience under close supervision.

*Daniel W. Hamilton, J.D., Ph.D., Dean, William S. Boyd School of Law*

*Ngai L. Pindell, J.D., Vice Dean*

## Law Faculty

### **Dean and Richard J. Morgan Professor of Law**

#### **Hamilton, Daniel W.**

Ph.D., Harvard University, J.D., George Washington University, B.A. Oberlin College. Rebel since 2013.

### **Associate Deans**

#### **Main, Thomas**

Associate Dean for Faculty Development and Research; B.A. Grinnell College; J.D., Northeastern University School of Law. Rebel since 2012.

#### **Pindell, Ngai L.**

Associate Dean for Academic Affairs; A.B., Duke University; J.D., Harvard University Law School. Rebel since 2000.

#### **Smith, Christine**

Associate Dean for Administration and External Relations; B.S., Arizona State University; M.Ed., Northern Arizona University. Rebel since 1998.

#### **Traum, Anne**

Associate Dean for Experiential Legal Education; A.B., Brown University; J.D., University of California, Hastings College of Law. Rebel since 2009.

### **Associate Dean and Graduate Coordinator**

#### **Durand, Frank**

Associate Dean for Student Affairs; B.A., University of New Mexico; J.D., Stanford University. *Rebel since 1998.*

### **Faculty**

#### **Anderson, Rachel J.**

Professor; M.A., Stanford University; J.D., University of California, Berkeley. Rebel since 2007.

#### **Bartrum, Ian C.**

Professor; B.A., Hamilton College; J.D., Vermont Law School; LL.M., Yale Law School. Rebel since 2011.

#### **Bayer, Peter Brandon**

Associate Professor; B.A., Hamilton College; J.D.,

New York University School of Law; M.A., New York University; LL.M., Harvard University. Rebel since 2001.

#### **Berger, Linda**

Family Foundation Professor; B.S., University of Colorado-Boulder; J.D., Case Western Reserve University. Rebel since 2011.

#### **Berkheiser, Mary E.**

Professor; B.A., University of Arizona; J.D., James E. Rogers College of Law, University of Arizona. Rebel since 1998.

#### **Birdsong, Bret C.**

Professor; B.A., Princeton University; J.D., University of California, Hastings College of the Law. Rebel since 2000.

#### **Blakesley, Christopher L.**

The Cobeaga Law Firm Professor; B.A., University of Utah; M.A., The Fletcher School of Law and Diplomacy, Tufts University; J.D., University of Utah; LL.M., J.S.D., Columbia University. Rebel since 2002.

#### **Carr, Jennifer**

Director of Academic Success Program; B.A., University of Nevada, Reno; J.D., University of Nevada, Las Vegas. Rebel since 2009.

#### **Correales, Robert I.**

Professor; B.A., University of North Texas; J.D., University of Kansas School of Law; LL.M., Georgetown University Law Center. Rebel since 1998.

#### **Edwards, Linda**

E. L. Cord Foundation Professor; B.A., Florida State University; J.D., University of Tennessee College of Law. Rebel since 2009.

#### **Franklin, Eric H.**

Associate Professor; B.A., The University of Texas at Austin, J.D., Cornell University Law School. Rebel since 2013.

#### **Garcia, Ruben J.**

Professor; A.B., Stanford University; J.D., University of California, Los Angeles; LL.M., University of Wisconsin Law School. Rebel since 2011.

**Gordon, Sara G.**

Associate Professor; B.A., Pitzer College; J.D., James E. Rogers College of Law, University of Arizona. Rebel since 2007.

**Griffin, Leslie**

William S. Boyd Professor; B.A., University of Notre Dame; M.A., M.Phil., Ph.D., Yale University; J.D., Stanford Law School. Rebel since 2012.

**Johnson, Lori D.**

Assistant Professor in Residence; B.A., University of Notre Dame; J.D., Northwestern University School of Law. Rebel since 2010.

**Kagan, Michael**

Associate Professor; B.A., Northwestern University; J.D., University of Michigan. Rebel since 2011.

**Kindred, Kay**

Ralph Denton Professor; A.B., Duke University; J.D., Columbia University School of Law. Rebel since 1999.

**LaFrance, Mary**

IGT Professor; A.B., Bryn Mawr College; M.A., J.D., Duke University. Rebel since 1999.

**Lazos, Sylvia**

Justice Myron Leavitt Professor; B.A., St. Mary's University; M.A., St. Mary's University; J.D., University of Michigan Law School. Rebel since 2003.

**Lipman, Francine J.**

William S. Boyd Professor; B.A., University of California, Santa Barbara; M.B.A., San Diego State University; J.D., University of California, Davis; L.L.M., New York University. Rebel since 2012.

**MacDowell, Elizabeth L.**

Associate Professor; B.A., California State University, Hayward; J.D., University of California, Berkeley. Rebel since 2010.

**Marouf, Fatma**

Associate Professor; B.A., Yale University; J.D., Harvard Law School. Rebel since 2010.

**McAffee, Thomas B.**

William S. Boyd Professor; B.S., University of Utah;

J.D., University of Utah College of Law. Rebel since 1998.

**McGinley, Ann C.**

William S. Boyd Professor; B.A., Rosemont College; M.A., University of Delaware; J.D., University of Pennsylvania. Rebel since 1999.

**Nathanson, Rebecca**

James E. Rogers Professor of Education and Law, Associate Professor, Joint Appointment with Department of Educational Psychology; B.A., University of California, Los Angeles; M.A., University of California, Santa Barbara; Ph.D., University of California, Santa Barbara. Rebel since 2003.

**Nussbaum, Lydia**

Associate Professor; B.A., Cornell University, J.D., University of Maryland Francis King Carey School of Law. Rebel since 2013.

**Pollman, Terrill**

Professor; B.A., J.D., University of Arizona. Rebel since 1998.

**Price, Jeanne**

Associate Professor and Director of the Wiener-Rogers Law Library; B.A., Yale University; J.D., University of Texas; M.L.S., University of Maryland. Rebel since 2008.

**Rapoport, Nancy B.**

Gordon Silver Professor of Law B.A., Rice University; J.D., Stanford University. Rebel since 2007.

**Rolnick, Addie C.**

Associate Professor; B.A., Oberlin College; J.D., M.A., University of California, Los Angeles. Rebel since 2011.

**Rowley, Keith A.**

William S. Boyd Professor; B.A., Baylor University; M.P.P., Harvard University; J.D., University of Texas Law School. Rebel since 2001.

**Scharf, Rebecca**

Associate Professor; B.A., Brandeis University; J.D. Harvard Law School. Rebel since 2004.

**Shoben, Elaine**

Judge Jack and Lulu Lehman Professor, A.B.,  
Barnard College; J.D., University of California  
Hastings College of the Law. Rebel since 2005.

Berkeley; J.D., University of California, Los  
Angeles. *UNLV Emeretus 1997.*

**Stempel, Jeffrey W.**

Doris S. and Theodore B. Lee Professor; B.A.,  
University of Minnesota; J.D., Yale Law School.  
Rebel since 1999.

**Sternlight, Jean R.**

Michael and Sonya Saltman Professor and Director  
of the Saltman Center for Conflict Resolution; B.A.,  
Swarthmore College; J.D., Harvard University Law  
School. Rebel since 2003.

**Tanenhaus, David**

James E. Rogers Professor of History and Law, Joint  
Appointment with Department of History; B.A.,  
Grinnell College; M.A. and Ph.D., University of  
Chicago. Rebel since 2002.

**Tovino, Stacey**

Lincy Professor of Law, Lehman Professor of Law;  
Tulane University; J.D., University of Houston;  
Ph.D., University of Texas. Rebel since 2010.

**Trimble, Marketa**

Associate Professor; Mgr., Law School of Charles  
University; JUDr., Ph.D., Law School of Charles  
University; J.S.M., Stanford Law School; J.S.D.,  
Stanford Law School. Rebel since 2010.

**Whitney, Jean M.**

Externship Director; B.A. and M.Ed., University of  
Minnesota; J.D., William Mitchell College of  
Law. Rebel since 1999.

**Professors Emereti**

**Grant, Douglas L.**

Professor Emeritus; B.A., University of Iowa; J.D.,  
University of Colorado School of Law. *UNLV  
Emeretus 1999.*

**Henderson, Lynne**

Professor Emerita; B.A., J.D., Stanford University.  
*UNLV Emeretus 2000.*

**Morgan, Richard J.**

Dean Emeritus; B.A., University of California,

## Juris Doctor Dual Programs

The William S. Boyd School of Law and the UNLV Colleges of Business, Education, and Urban Affairs offer the following Juris Doctor dual degree programs allowing students to be admitted to both programs to pursue the two degrees concurrently:

- Juris Doctor/Master of Business Administration (JD/MBA)
- Juris Doctor/ Master of of Social Work (JD/MSW)
- Juris Doctor/Ph.D. in Education (JD/PhD)

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

Learning outcomes for specific subplan tracks can be found below:

- Dual Degree: Master of Business Administration & Juris Doctor
- Dual Degree: Master of Social Work & Juris Doctor
- Dual Degree: Doctor of Philosophy - Educational Psychology & Juris Doctor
- Dual Degree: Doctor of Philosophy - Higher Education & Juris Doctor
- Dual Degree: Doctor of Philosophy - Special Education & Juris Doctor

### **Juris Doctor/Master of Business Administration (JD/MBA)**

Pursued individually, the JD requires the completion of 89 credit hours and the MBA requires the completion of 48 credit hours. The dual JD/MBA requires the completion of 80 law credit hours and 30 business credit hours, as 15 credit hours of law courses are accepted toward the MBA and nine credit hours of business courses are accepted toward the JD.

Applicants to the JD/MBA program must apply for, and gain admission to, both the Boyd School of Law JD program and to the Lee Business School MBA program, respectively. For information on MBA program application procedures, interested

individuals should contact the Lee Business School-MBA Program at (702) 895-3655 or visit their website at [business.unlv.edu](http://business.unlv.edu). When seeking admission to each of the two schools, applicants are asked to submit with each application a statement indicating their wish to pursue the dual JD/MBA degree.

While applications from current students in either program will be considered, students normally should secure admission to each program upon entering the university. However, petitions for admission to the dual JD/MBA program from students at more advanced stages in either program will be considered.

Under American Bar Association standards, the Boyd School of Law cannot award credit for any course work taken prior to matriculation into the JD program. JD/MBA candidates therefore normally must enroll at the Boyd School of Law and complete one year of study before taking any MBA courses to be applied to the JD degree.

### **Business Administration Courses : 30 Total Credits**

Required Law Courses: 44 Total Credits\*

\* First-year required courses are prerequisites to all upper-level law courses.

LAW 503 - Contracts  
LAW 505 - Lawyering Process I  
LAW 511 - Civil Procedure/Alternative Dispute Resolution I  
LAW 515 - Lawyering Process II  
LAW 517 - Constitutional Law I  
LAW 523 - Torts  
LAW 525 - Property II  
LAW 531 - Civil Procedure and Alternative Dispute Resolution II  
LAW 613 - Professional Responsibility  
LAW 616 - Criminal Law  
LAW 624 - Constitutional Law II  
Third Semester Lawyering Process Course

Upper-level writing-intensive course (one of various courses)

Directed Electives at Law School: 18 Total Credits\*

LAW 603 - Federal Income Tax  
LAW 605 - Basic Bankruptcy  
LAW 608 - Insurance Law  
LAW 614 - Real Estate Finance  
LAW 615 - Secured Transactions  
LAW 618 - Employment Discrimination Law  
LAW 619 - Employment Law  
LAW 621 - Patents, Trademarks and Trade Secrets  
LAW 622 - Introduction to Gaming Law  
LAW 626 - Business Organizations I  
LAW 628 - Payment Systems  
LAW 629 - Copyright  
LAW 637 - Sales and Leases  
LAW 640 - Labor Law  
LAW 646 - Cyberlaw  
LAW 649 - Taxation of Business Entities  
LAW 656 - Business Organizations II  
LAW 657 - Antitrust  
LAW 660 - Banking Law  
LAW 661 - Federal Taxation  
LAW 663 - Advanced Issues in Tax  
LAW 665 - Health Care Organization and Finance  
LAW 668 - Commercial Law: Core Concepts in Secured Transactions and Payments Systems  
LAW 672 - International Business Transactions  
LAW 723 - Economics and the Law  
LAW 725 - Gaming Policy Seminar  
LAW 730 - Business Bankruptcy  
LAW 733 - Advanced Intellectual Property Seminar  
LAW 735 - U.S. Taxation of International Transactions  
LAW 736 - Securities Regulation  
Free Electives at Law School:

Students in the JD/MBA program must complete 18 other credits of "free" electives at the law school. These free electives may come from the list of directed electives or from any other elective offered at the law school. Students anticipating practice in a certain area are encouraged to refer to the Course Planning Guide in the Law School Student Policy Handbook for suggested course sequences.

### **Juris Doctor/Master of Social Work (JD/MSW)**

Pursued individually, the JD requires the completion of 89 credit hours and the MSW requires the completion of 60 credit hours. The dual MSW/JD degree would require the completion of 80 law credit hours and 51 social work credit hours, as 9 hours of law courses are accepted toward the MSW and 9 hours of social work courses are accepted toward the JD.

Applicants to the JD/MSW degree program must apply for, and gain admission to, both the Boyd School of Law JD program and to the School of Social Work MSW program, respectively. Admission requirements are the same as those listed under the regular JD and MSW programs.

While applications from current students in either program will be considered, students normally should seek and satisfy admission to enter both programs upon entering the university. However, petitions requesting admission to the dual JD/MSW program from students at more advanced stages in either program will be considered.

Those interested are encouraged to submit a request for permission to participate in the program, along with applications for admission, at the earliest possible time. Contact the William S. Boyd School of Law at (702) 895-2440 and the UNLV School of Social Work programs at (702) 895-3311 or <http://socialwork.unlv.edu/> for further information on admissions requirements.

Required Social Work Courses: 51 credits

Required Law Courses: 44 credits\*

First-year required courses are prerequisites to all upper-level law courses.

LAW 503 - Contracts  
LAW 505 - Lawyering Process I  
LAW 511 - Civil Procedure/Alternative Dispute Resolution I  
LAW 515 - Lawyering Process II  
LAW 517 - Constitutional Law I  
LAW 521 - Property I  
LAW 523 - Torts  
LAW 525 - Property II  
LAW 531 - Civil Procedure and Alternative Dispute

Resolution II

LAW 616 - Criminal Law

LAW 624 - Constitutional Law II

Third Semester Lawyering Process Course 3 credits

Upper-level writing-intensive course (one of various courses)

Free Electives at Law School: 24 credits

Students in the JD/MSW program must complete 24 other credits of "free" electives at the law school.

These free electives may come from the list of directed electives or from any other elective offered at the law school. Students anticipating practice in a certain area are encouraged to refer to the Course Planning Guide in the Law School Student Policy Handbook for suggested course sequences.

MSW Electives: 9 credits

PUA 701 - Governance and the Urban Community

PUA 705 - Public Goods and Public Finance

PUA 708 - Organizations and Organizational Behavior

SW 776 - Legal and Ethical Issues in Social Work

SW 791 - Advanced Practice With Children

SW 792 - Cross-Cutting Issues in Child Welfare

SW 793 - Child Welfare Policy and Services

SW 798 - Child Welfare Administration and Supervision

Directed Electives at Law School: 12 credits

Students in the JD/MSW program must successfully complete at least 12 credits from the following list.

LAW 603 - Federal Income Tax

LAW 604 - Administrative Law

LAW 607 - Family Law

LAW 617 - Disability Law

LAW 618 - Employment Discrimination Law

LAW 619 - Employment Law

LAW 625 - Federal Indian Law

LAW 626 - Business Organizations I

LAW 633 - Land Use Regulation

LAW 636 - Child, Parent and the State

LAW 638 - Education Law and Policy

LAW 639 - Feminist Jurisprudence

LAW 642 - Law and Social Justice

LAW 644 - Juvenile Law

LAW 647 - Civil Rights Litigation

LAW 648 - Health Care Liability and Quality Regulation

LAW 653 - Criminal Procedure I

LAW 658 - Immigration Law

LAW 659 - First Amendment Rights

LAW 664 - Criminal Procedure II

LAW 665 - Health Care Organization and Finance

LAW 666 - Domestic Violence and the Law

LAW 670 - Alternative Dispute Resolution Survey

LAW 711 - Children in Society: Selected Problems

LAW 710 - The Bill of Rights in Law and History

LAW 713 - Interviewing, Counseling and Negotiations

LAW 715 - Mediation

LAW 719 - Negotiation

LAW 727 - International Human Rights Law

LAW 728 - Bioethics and the Law

LAW 750 - Congressional Externship

LAW 751 - Judicial Externship

LAW 752 - Legislative Externship

LAW 771 - Juvenile Justice Clinic

LAW 773 - Government & Public Interest Externship

LAW 774 - Capital Defense Clinic

LAW 775 - Immigration Clinic

## **Juris Doctor/Doctor of Philosophy in Education (JD/PhD)**

The William S. Boyd School of Law and the UNLV College of Education offer a dual Dual Degree: Doctor of Philosophy - Special Education & Juris Doctor degree program that allows students admitted to both programs to pursue the two degrees concurrently. Individuals seeking this dual degree will obtain a J.D. degree and a Ph.D. one of the following:

- Educational Psychology (with an emphasis in Foundations or School Psychology)
- Higher Education Leadership
- Special Education

Pursued individually, the J.D. degree requires the completion of 89 credit hours and the Ph.D. degree requires the completion of a minimum of 67-72 (dependent upon program) credit hours. The J.D./Ph.D. degree would require the completion of 80

law credit hours and a minimum of 54-63 (dependent upon program) education credit hours, as 9 hours of education courses are accepted toward the J.D. degree and 9-18 (dependent upon program) hours of law courses are accepted toward the Ph.D. degree.

Applicants to the J.D./Ph.D. degree program must apply for, and gain admission to both the Boyd School of Law J.D. program and to the College of Education Ph.D. program, respectively. For more information on the College of Education Ph.D. program application procedures, interested individuals should contact the College of Education at (702) 895-3374 or visit [education.unlv.edu](http://education.unlv.edu). When seeking admission to each of the two schools, applicants are asked to submit with each application a statement indicating their wish to pursue the dual J.D./Ph.D.

While applications from current students in either program will be considered, students normally should secure admission to each program upon entering the university. However, petitions requesting admission to the dual J.D./Ph.D. program from students at more advanced stages in either program will be considered.

Under American Bar Association standards, the Boyd School of Law cannot award credit for any coursework taken prior to matriculation into the J.D. program. J.D./Ph.D. candidates therefore normally must enroll at the Boyd School of Law and complete one year of study before taking any Ph.D. courses.

### **Curriculum: Doctor of Philosophy - Educational Psychology**

- Research Methods Core Courses 15
- Learning/Development Core Courses 10
- Ph.D. Emphasis Area Courses\* 12
- Required Dissertation in Educational Psychology: 12
- Specialization Strand Core Courses
- Each specialization strand within the Ph.D. in Educational Psychology has a distinct set of core requirements.
- Foundations Strand Core Courses 18
- School Psychology Strand Core Courses 24

Ph.D. students are required to identify a special emphasis area in addition to the specialization strand

coursework. For the JD/PhD program, this emphasis area will be comprised of 12 credits from the required law degree coursework.

### **Curriculum: Doctor of Philosophy - Higher Education**

- Required Core Courses 18
- Research Courses 12
- Higher Education Electives 9
- Dissertation in Higher Education Leadership 15

### **Curriculum: Doctor of Philosophy - Special Education**

- Required Special Education Core Courses 26
- Required Education Research Courses 15
- Required Special Education Disability Studies Courses 10
- Required Special Education Leadership Courses 9
- Family Law 3
- Required Dissertation in Special Education 12

Required Law Courses: 44 Total Credits\*

First-year required courses are prerequisites to all upper-level law courses.

LAW 503 - Contracts

LAW 505 - Lawyering Process I

LAW 511 - Civil Procedure/Alternative Dispute Resolution I

LAW 515 - Lawyering Process II

LAW 517 - Constitutional Law I

LAW 523 - Torts

LAW 525 - Property II

LAW 531 - Civil Procedure and Alternative Dispute Resolution II

LAW 613 - Professional Responsibility

LAW 616 - Criminal Law

LAW 624 - Constitutional Law II

Third Semester Lawyering Process Course

Upper-level writing-intensive course (one of various courses)

Directed Electives at Law School: 9 Total Credits



LAW 607 - Family Law  
LAW 617 - Disability Law  
LAW 618 - Employment Discrimination Law  
LAW 638 - Education Law and Policy  
LAW 644 - Juvenile Law  
LAW 670 - Alternative Dispute Resolution Survey  
LAW 715 - Mediation  
LAW 719 - Negotiation  
LAW 769 - Education Clinic  
LAW 770 - Family Justice Clinic  
LAW 771 - Juvenile Justice Clinic  
LAW 771 - Juvenile Justice Clinic  
LAW 773 - Government & Public Interest Externship  
LAW 774 - Capital Defense Clinic  
LAW 775 - Immigration Clinic  
LAW 790 - Special Topics in Law

Free Electives at Law School:27 credits

Students in the JD/Ph.D. program must complete 27 other credits of "free" electives at the law school. These "free" electives may come from the list of directed electives or from any other elective offered at the law school. Students anticipating practice in a certain area are encouraged to refer to the Course Planning Guide in the Law School Student Policy Handbook for suggested course sequences.

## Law Courses

### LAW 502 - Contracts I

Credits 3

Overview of basic contract law. Exploration of common law legal method and the structure of Article 2 of the Uniform Commercial Code in the context of issues of contract formation.

**Prerequisites** Majors only, consent of instructor.

### LAW 503 – Contracts

Credits 4

Overview of basic contract law. Exploration of common law legal method and the structure of Article II of the Uniform Commercial Code in the context of issues of contract formation and interpretation.

**Notes** May be repeated to a maximum of four credits.

**Prerequisites** Majors only, consent of instructor.

### LAW 505 - Lawyering Process I

Credits 1 – 4

Students are introduced to basic legal research, interviewing skills, effective use of legal authorities in legal analysis and the conventions of predictive legal writing. The course is taught using readings, exercises, simulations, extensive individual feedback and conferences. Students will write several short assignments as well as longer office memos.

**Prerequisites** Majors only, consent of instructor.

### LAW 511 - Civil Procedure/Alternative Dispute Resolution I

Credits 4

Exploration of the nature and structure of dispute resolution systems, with a focus on formal adjudicatory procedure for civil lawsuits while exposing students to the spectrum and interrelation of dispute resolution systems. Topics covered include jurisdiction, venue, rules of procedure, choice of law.

**Notes** May be repeated to a maximum of four credits.

**Prerequisites** Majors only, consent of instructor.

### LAW 515 - Lawyering Process II

Credits 1 – 4

Students continue to develop skills in legal research, analysis, reasoning and writing. Focuses on writing persuasively as an advocate, using increasingly

complex simulations requiring analysis of statutory and administrative law materials. Assignments include letters to clients and attorneys, a trial court memorandum and an appellate brief, staged to allow for extensive individual feedback and instruction, and an oral argument to a mock appellate court.

**Prerequisites** LAW 505, majors only; consent of instructor.

#### LAW 517 - Constitutional Law I

Credits 3

Examines judicial review, congressional power under the Commerce, Taxing, and Spending Clauses and section five of the Fourteenth Amendment; substantive due process rights; the role of the states and national government under the Tenth and Eleventh Amendments; and Separation of Powers.

**Prerequisites** Majors only, consent of instructor.

#### LAW 519 - Contracts II

Credits 3

Further exploration of Contracts I with an emphasis on interpretation of contracts.

**Prerequisites** Majors only, consent of instructor.

#### LAW 521 - Property I

Credits 4

Acquisitions of property interest, estates in land and future interests, and landlord tenant.

**Notes** May be repeated to a maximum of four credits.

**Prerequisites** Majors only, consent of instructor.

#### LAW 523 – Torts

Credits 4

Law of civil injuries, including legal protection of personality, property and relational interests against physical, economic, and emotional harms. Emphasis on intentional torts, negligence and strict liability.

**Prerequisites** Majors only, consent of instructor.

#### LAW 525 - Property II

Credits 2 – 3

Real estate transactions, easements and other servitudes, public land use regulation.

**Notes** May be taken to a maximum of three credits

**Prerequisites** Majors only, consent of instructor.

#### LAW 531 - Civil Procedure and Alternative Dispute Resolution II

Credits 2 – 3

Continuation of Civil Procedure and Alternative Dispute Resolution I. Topics covered include pretrial practice, pretrial dispositions, and court-imposed alternative dispute resolution mechanisms.

#### LAW 602 - American Legal History

Credits 2 – 3

Examination of major issues in American legal history such as the role of lawyers in society and the role of law in developing the economy as well as the development of American legal institutions.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 603 - Federal Income Tax

Credits 3

Overview of the code provisions governing the taxation of individual income and the basic concepts and legal doctrines which courts employ in implementing those provisions.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 604 - Administrative Law

Credits 3

Examines the legal structure of federal and state government agencies; how they may be structured under the Constitution; how they issue and enforce regulations; and how they make decisions.

**Notes** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 605 - Basic Bankruptcy

Credits 3

Reviews the basic elements of business and consumer bankruptcy under federal bankruptcy statutes.

Emphasis on problem solving and ethical issues.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 606 – Evidence

Credits 3 – 5

Focuses on the Federal Rules of Evidence and the issues that arise out of their use. Provides understanding of the rules including both their

theoretical basis and how they function in the courtroom. Addresses preparation and presentation of various kinds of evidence, including proof of writings; qualifications and examination of witnesses; privilege; opinion testimony; demonstrative, experimental, scientific evidence, determination of relevancy; application of the hearsay rule.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 607 - Family Law

Credits 3

Basic family law. Covers legal construction of the family and relationship between the state and the family, marriage, divorce, custody, and adoption.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 608 - Insurance Law

Credits 3

Overview of the theory and operation of insurance, including the marketing, underwriting, and claims process. Major forms of insurance surveyed with primary focus on issues of insurance policy construction and judicial resolution of recurring coverage issues.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 609 - Law and Literature

Credits 1 – 3

Study of real or functional depictions of lawyers and the legal system from a literary perspective to gain a new understanding of the law.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 610 - Advanced Legal Analysis and Writing: Special Topics

Credits 3

Analysis and writing about complex legal problems. Interpretation of various authorities and use of various forms of legal reasoning, types of argument, and techniques for clear and effective writing.

**Prerequisites** LAW 505, LAW 515, majors only, consent of instructor.

#### LAW 611 - Products Liability

Credits 2 – 3

Analyzes the substantive law, underlying theory and policy, and practice of products liability—liability for injuries by defective consumer products.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 613 - Professional Responsibility

Credits 3

Examines the law governing lawyers, the rules that govern how members of the legal profession, including judges as well as lawyers, may or must behave. Sources of these rules are many—the Constitution, statutes, procedural, evidentiary and court rules, and rules of professional conduct.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 614 - Real Estate Finance

Credits 3

Mortgages, deeds of trust, installment land contracts, construction financing, mechanics' liens, sales and leasebacks.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 615 - Secured Transactions

Credits 3

Covers Article 9 of the Uniform Commercial code with respect to taking security interests in personal property. Emphasis on interplay with real property security and bankruptcy, problem solving and ethical issues.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 616 - Criminal Law

Credits 3

Introduction to criminal law with emphasis on principles of criminal liability.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 617 - Disability Law

Credits 3

Examines the law of disability discrimination, focusing on the Americans with Disabilities Act of

1990 and other federal and state statutes, case law and regulations governing the civil rights of persons with disabilities to education, employment, public accommodations and housing.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 618 - Employment Discrimination Law

Credits 3

Examines the law of employment discrimination, focusing on Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1991, the Age Discrimination Employment Act of 1967 and other federal and state statutes, case law and regulations protecting the civil rights of employees and job applicants.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 619 - Employment Law

Credits 3

Surveys the law of employment relations focusing on common law exceptions to the employment at will doctrine through public policy, individual contracts, handbooks, and tort doctrine. Examines just cause provisions of the Model Termination Act. Analyzes common law and statutory protections afforded to employee speech and employee privacy, and examines federal wages and hours legislation.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 620 - Water Law

Credits 3

Acquisition and exercise of private rights in water, public rights and environmental protection, water distribution organizations, interstate water allocation, and federal-state relations in water resource management.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 621 - Patents, Trademarks and Trade Secrets

Credits 3

Study of the law relating to the protection of literary, artistic, and musical material; copyright law, including publication, subjects protected, and extent of protection; aspects of unfair competition, and right of privacy.

**Notes** May be repeated to a maximum of four credits.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 622 - Introduction to Gaming Law

Credits 2 – 3

This course provides an overview of public policy issues; the federal role in gaming regulation; the economics of gaming; the creation of gaming control systems; the licensing process; ethical requirements for the gaming lawyer; accounting, internal controls and taxation; gaming contracts; gaming crimes; advertising; entertainment; the legislative process; problem gambling; and practical approaches to legal representation.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 623 - Resort & Hotel Casino Law

Credits 3

The course will explore the legal issues that arise from the operation of a resort hotel and casino, using Nevada companies as typical examples.

#### LAW 624 - Constitutional Law II

Credits 3

Examines the Equal Protection Clause of the Fourteenth Amendment and related topics and the First Amendment's Free Speech and Free Press Clauses.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 625 - Federal Indian Law

Credits 3

Anthropological, historical, and legal study of the American Indians, including a focus on American Indian traditional law and values, federal policy and current legal issues.

**Notes** May be repeated to a maximum of four credits.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 626 - Business Organizations I

Credits 3 – 4

Examines different forms of business organization, including corporations, partnerships and limited liability companies. Focuses on similarities and

differences among these forms, and examines the roles, responsibilities and rights of the persons involved in business organizations. Does not cover federal regulation of securities or issuers.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 627 - Pretrial Litigation

Credits 3

Hands-on experience of the pre-trial litigation process in the federal court system. Students act as lawyers in a simulated civil case, interviewing and counseling clients, conducting legal research, drafting pleading, engaging in discovery practice, settlement negotiations and pre-trial motion practice.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 628 - Payment Systems

Credits 3

Examine the legal rules regarding how goods and services are paid for. Includes portions of Articles 3 and 4 of the Uniform Commercial Code, federal statutes regarding credit and debit cards, and the rules regarding negotiable instruments.

#### LAW 629 – Copyright|

Credits 3

Covers federal copyright law and the state law right of publicity, with minor attention to some closely related doctrines. Fundamental principles and public policy questions of federal copyright law. Although some state law doctrines examined from time to time, copyright laws in the United States is almost exclusively federal. For students whose career interests include intellectual property or entertainment law. Also recommended for those interested in communications law, general business transactions, and/or commercial litigation.

**Notes** May be repeated to a maximum of four credits.

#### LAW 630 - Community Property

Credits 1 – 3

Examines the law dealing with the classification, management and distribution of property acquisition within the community property jurisdictions of the United States.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 631 – Remedies

Credits 2 – 4

Explores what lawyers and courts do to help someone who has been, or is about to be, wronged. In-depth look at the four major categories of remedies: damages, coercive remedies, declaratory relief and restitution.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 632 - Wills, Trusts and Estates

Credits 2 – 3

Examines intestate succession, family protection, execution of wills, will contests, will substitutes, creation of trusts, modification and termination of trusts, administration of estates and trusts.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 633 - Land Use Regulation

Credits 2 – 3

Focuses on public regulation of land use, including zoning, subdivision regulation, regulation of urban growth, etc. Include the planning process, constitutional limitations on land use controls, state and regional regulation, aesthetic regulation and discriminatory zoning, and private land use alternatives.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 634 - Federal Courts

Credits 2 – 3

Examines federal jurisdiction and the law of federal-state relations. Covers federal judicial powers, congressional allocation of jurisdiction, choice of law, district court jurisdiction, appellate review, civil judicial reform, 42 USC Section 1983, Implied Right of Action, 11th Amendment and Federal Habeas Corpus.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 635 - Conflict of Laws

Credits 2 – 3

Focuses on the problem of choosing which jurisdiction's law should be applied to transactions, relationships, or events with contracts in more than one jurisdiction.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 636 - Child, Parent and the State

Credits 2 – 3

Explores the legal relationships between children, their parents, and the state, covering such issues as the child as an autonomous being, the child's role in the family, family autonomy, and the obligations of parents and the state to children.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 637 - Sales and Leases

Credits 2 – 3

Examines the laws governing sales and leases of goods, including Articles 1, 2 and 2A of the Uniform Commercial Code, the U.N. Convention on Contracts for the International Sale of Goods, and the Uniform Electronic Transactions Act.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 638 - Education Law and Policy

Credits 2 – 3

Examines six distinct and highly visible areas of education law and policy, primarily in K-12: compulsory education; school governance and due process; school finance; private schools; religion and public schools; and, equal educational opportunity.

#### LAW 639 - Feminist Jurisprudence

Credits 2 – 3

Explores feminist theory in relation to the law.

Examines the historical foundations of women's legal subordination as well as the various strands of feminist legal theory. Specific units of study may include topics such as affirmative action, comparable worth, work and family, education, sexual harassment, domestic violence, the teaching and practice of law, pornography and free speech, abortion and others.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 640 - Labor Law

Credits 2 – 3

Explores the employer-employee-union relationship, its historical and economic development and its modern statutory framework.

#### LAW 641 - Entertainment Law

Credits 2 – 3

Surveys a wide range of legal issues pertinent to live and recorded entertainment, including intellectual property rights, contract formation and breach, regulatory schemes, labor issues, and First Amendment considerations.

**Prerequisites** LAW 629

#### LAW 642 - Law and Social Justice

Credits 2 – 3

Examines the role of law in creating, perpetuating, and dismantling hierarchies of power and privilege in society, particularly those based on social/ethnic groupings, gender, socio-economic class, sexual orientation, and disabilities. Enables students to read law critically with an understanding of the ways in which techniques, practices and rhetorical strategies can exclude and subordinate based on categories of identity.

#### LAW 643 - Legislation and Statutory Interpretation

Credits 2 – 3

Explores some of the various procedural, constitutional, and jurisprudential issues raised by a study of the unique role that state and federal legislatures play in constitutional order.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

#### LAW 644 - Juvenile Law

Credits 2 – 3

Examines the procedural and substantive law and judicial administration relating to juvenile justice. Primary area of concentration: rights of accused juvenile, police conduct and detention, reference for adult prosecution, adjudication, treatment vs. punishment, and the roles of the lawyer in the juvenile court system.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 645 - Lawyering Theory and Practice

Credits 2 – 4

Students study and perform a range of tasks and services performed by practicing attorneys in the representation of clients. Exercises include counseling, assessment of legal problems, efforts for resolution and claims activity, including litigation and defense through complaints, motions, discovery, and trial-related activity.

LAW 646 – Cyberlaw|

Credits 2 – 4

Study of legal issues attending use of computers and electronic communications and commerce, including intellectual property concerns related to cyberspace and features such as websites, e-commerce and communications.

**Notes** LAW 629 is strongly recommended.

LAW 647 - Civil Rights Litigation

Credits 2 – 4

Students examine, analyze and evaluate the various stages of a complex case involving a civil rights claim made pursuant to the Constitution, federal anti-discrimination statutes, or common law.

**Prerequisites** LAW 515, majors only, consent of instructor.

LAW 648 - Health Care Liability and Quality Regulation

Credits 3

Explores ways in which the law promotes the quality of health care through licensing, certification, and accreditation of health care professionals and institutions and also addresses liability issues in the health care context.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 649 - Taxation of Business Entities

Credits 2 – 3

Surveys federal income taxation of business entities and their owners, including corporations, partnerships, LLC's, and LLP's.

**Prerequisites** LAW 603, majors only or completion of first-year law courses or consent of instructor.

LAW 650 - Estate and Gift Tax

Credits 1 – 3

Examines the federal taxation regime applicable to gifts and inheritances.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 651 - Environmental Quality Law

Credits 2 – 3

Provides an overview of the law and policy of environmental quality and pollution control.

Addresses the origins and development of modern statutory environmental law as it relates to the various media: air, water and soil.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 652 - International Public Law

Credits 2 – 3

Introduction to the doctrines, institutions and methodology of modern international law. Students examine the legal systems governing relations among states, and their expansion to non-state actors. Also analyzes the application of international law in domestic courts, international tribunals and organizations, doctrines of jurisdiction and immunities and human rights.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 653 - Criminal Procedure I

Credits 3

Basic course in criminal procedure. Covers laws regulating daily interactions of police and public, including laws of search and seizure and of interrogations. Does not cover rights subsequent to interrogation.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 654 - Public Lands and Natural Resources Law

Credits 2 – 3

Provides an introduction to federal public lands and natural resources law. Focuses on the laws and legal systems that govern the classification and use of the federally owned lands comprising a third of America and the vast majority of the West. Examines major resource areas, including: minerals, timber, range,

wildlife, recreation, wilderness, and cultural resources. Explores the interplay between environmental, economic, cultural, social and political factors in managing national parks, forest, and the public domain.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 655 – Securitization  
Credits 2 – 3

Examines the financing technique of securitization and its various legal underpinnings. Securitization is a trillion dollar industry that raises issues in corporate finance, secured transactions, bankruptcy and securities regulation.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor, and LAW 615 or LAW 626.

LAW 656 - Business Organizations II  
Credits 2 – 3

Covers the law of publicly-traded corporations. Special attention will be given to the fiduciary duties of boards of directors; management, and controlling shareholders; proxy regulation and shareholder voting; insider trading; shareholder litigation and mergers and acquisitions.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 657 – Antitrust  
Credits 1 – 3

Basic legal framework for regulating conduct to undermine competitive markets. Topics include antitrust regulation of horizontal agreements between competitors to restrain trade, such as price-fixing, output restrictions, boycotts and mergers; vertical agreements between suppliers and purchasers such as distributional restraints, exclusive dealing and tying; and unilateral conduct, such as monopolization and attempted monopolization. Role of antitrust law in today's technological environment.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 658 - Immigration Law  
Credits 1 – 3

Covers legal issues and policies pertaining to non-

citizens of the United States, including the regulation of admission, exclusion, and deportation of immigrants seeking to enter the United States. Rights of non-citizens who are in U.S. territory in the areas of health, education, and labor. Topics covered from various perspectives, including constitutional law, international human rights, comparative law, ethics and morality and history.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 659 - First Amendment Rights  
Credits 2 – 3

Explores in depth critical First Amendment Freedoms: Freedom of Expression and Association, Freedom of Press and Media, and Freedom of Religion.

**Prerequisites** Law 517

LAW 660 - Banking Law  
Credits 3

Basic understanding of the federal and state laws governing traditional commercial banks and financial institutions in the United States. At the end of the course, the students will have a solid foundation which they can use to study more specific areas of law regarding such institutions.

**Prerequisites** Majors only or completion of first year law courses or consent of instructor.

LAW 661 - Federal Taxation  
Credits 1 – 5

Surveys the three major federal tax topics: income tax (two-fifths of course), taxation of business entities (two-fifths), and estate and gift tax (one-fifth). Students may enroll for all three components (5 credits), or two components, or one component (credits depending on components taken).

**Prerequisites** Majors only or completion of first year law courses or consent of instructor.

LAW 662 - Civil and Criminal Tax Litigation  
Credits 1 – 3

Examines tax controversy resolution mechanism. Not limited to tax students. Helpful for all interested in litigation career, including civil litigation and white collar crime. Also, good to hone drafting skills. Students prepare pleadings, memos, and other controversy-related documents.



**Notes** May be repeated to a maximum of three credits.

**Prerequisites** Majors only or completion of first year law courses or consent of instructor.

LAW 663 - Advanced Issues in Tax  
Credits 2 – 3

Seminar. In consultation with the professor, students select a topic of current interest and importance in federal, state, or international taxation.

**Notes** Students write research papers on topic and present and defend them in class.

**Prerequisites** Majors only or completion of first year law courses, or consent of instructor.

LAW 664 - Criminal Procedure II  
Credits 3

Covers law and practices between the time defendant is charged and final disposition and sentencing.

Includes prosecutorial discretion, bail, plea bargaining right to counsel, due process, sentencing, and post-conviction review.

**Prerequisites** Majors only or completion of first year courses or consent of instructor.

LAW 665 - Health Care Organization and Finance  
Credits 3

Laws and legal issues relating to the organization and operation of health care enterprises and the financing of health care services.

**Notes** Prior or concurrent enrollment in LAW 626 desirable but not required.

**Prerequisites** Majors only or completion of first year courses or consent of professor.

LAW 666 - Domestic Violence and the Law  
Credits 3

Examines violence against women and others in intimate relationships and the ways in which the law impacts and is impacted by domestic violence.

Explores the history and social context of domestic violence and the dynamics and dimensions of abusive relationships.

**Prerequisites** Majors only or completion of first year courses or consent of professor.

LAW 667 - International Criminal Law  
Credits 3

Covers the basics of public international law in the context of international criminal law including the nature of international crime, aspects of the international substantive system of laws, and specific offenses, as well as how this law is adjudicated and enforced. Specific offenses covered will include both international and transnational crimes as well as the procedural and adjudicative mechanisms established to deal with these offenses.

**Prerequisites** Majors only or completion of first year law courses or consent of instructor.

LAW 668 - Commercial Law: Core Concepts in Secured Transactions and Payments Systems  
Credits 4 – 5

Gives students a familiarity with, and the ability to manipulate, basic concepts in secured transactions (Article 9 of the Uniform Commercial Code) and certain aspects of payment systems (Articles 3,4 and 5 of the Uniform Commercial Code).

**Prerequisites** Majors only or completion of first year law courses or consent of instructor.

LAW 669 - Legal Drafting: Special Topics  
Credits 3

Drafting legal documents such as contracts, leases, wills, by-laws, and employment agreements. Recognizing the importance of determining the client's objectives, researching the relevant law, organizing the document effectively, and drafting with accuracy, clarity, brevity, and appropriate tone.

**Prerequisites** LAW 505, LAW 515; majors only; consent of instructor.

LAW 670 - Alternative Dispute Resolution Survey  
Credits 3

Students learn about negotiation, mediation, arbitration, and other forms of dispute resolution that are alternative or supplemental to litigation. The course will include theory, discussion, simulations, and lectures.

**Prerequisites** 500-level courses; majors only; consent of instructor.

LAW 671 - Judicial Writing  
Credits 3

Introduction to style and form of judicial writing. Researching and writing on problems typically

handled by trial or appellate courts. Exploration of the roles of courts in America's law and society, the internal workings of courts, and the roles and ethical obligations of various court staff.

**Prerequisites** LAW 505, LAW 515; majors only; consent of instructor.

LAW 672 - International Business Transactions  
Credits 3

Explores a wide range of legal problems involving international trade, licensing, and investment issues.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 673 - Estate Planning  
Credits 3

Cover various estate planning strategies, including but not limited to, the estate planning process, wills and living trusts, gifting considerations, life insurance, limited partnerships and limited liability companies and charitable giving.

**Prerequisites** LAW 632, LAW 650, majors only or permission of instructor.

LAW 674 - Perspectives on the Law<sup>3</sup>History and Jurisprudence  
Credits 3

Explores American Legal History and the best thinking about the nature of law and how it functions.

**Prerequisites** Majors only or permission of instructor.

LAW 675 - State and Local Taxation  
Credits 1 – 3

Explores the state and federal constitutional limits on state taxation and the principle kinds of state taxes: income, sales and property taxes.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 676 - Intellectual Property Licensing Practicum  
Credits 3

Covers the fundamentals of intellectual property licensing agreements with emphasis on drafting techniques for licenses involving patents, copyrights, trademarks, databases, and/or trade secrets.

**Notes** This course satisfies the third semester Lawyering Process requirement.

**Prerequisites** LAW 505, and LAW 515, LAW 621 or LAW 629.

LAW 677 - Nevada Civil Practice  
Credits 2-3

This course covers the basic areas of civil practice [actions, pleadings, civil procedure, evidence, and remedies], and will explore their particular applications [from selection, discovery tactics, litigation and trial strategy, professional ethics].

**Prerequisites** Majors only or completion of first year law courses or consent of professor.

LAW 678 - U.S. Federal Gaming Law  
Credits 3

This course will provide basic information about federal gambling law, including laws concerning Native American casinos, interstate wagering, international wagering, transportation of wagering devices and online wagering.

LAW 679 - Advanced Writers' Group  
Credits 1

The Advanced Writers' Group helps students become more effective legal writers by providing opportunities for them to respond to others' writing and to receive feedback on their own writing.

**Notes** S/F grading only.

LAW 680 - International Intellectual Property  
Credits 3

This course covers the principles, treaties and mechanisms that regulate intellectual property at the international level (particularly copyright, patents, trademarks and internet domain names) and surveys the differences in the intellectual property laws of various countries.

LAW 681 - Critical Race Theory  
Credits 2-5

This course will explore the relationship between race and the law from the perspective of Critical Race Theory (CRT). It covers the origins of the literature and contrasts CRT with other frameworks. The course also covers major theoretical themes as well as questions and criticisms raised about CRT.

LAW 710 - The Bill of Rights in Law and History  
Credits 2 – 3

Read recent works on the Bill of Rights and consider contemporary and historical questions about the meaning and purpose of the Bill of Rights or one of its particular provisions. Topics include federalism, populism, the role of reason in conceptualizations of the Constitution and Bill of Rights, the problem of unenumerated rights and issues raised by the incorporation controversy.

**Prerequisites** Law 517

LAW 711 - Children in Society: Selected Problems  
Credits 2 – 3

Examines issues related to laws and policy governing the place and treatment of children in American society. Specific issues vary somewhat based on current events and student interest, but generally focus on legal and policy issues affecting the meaning of the state's parents-partial obligation, the parent-child relationship and the family.

LAW 712 - Trial Advocacy  
Credits 2 – 4

Students design, execute, and practice the lawyering tasks specifically associated with actual courtroom trials, including opening statements, direct examination, cross-examination, evidentiary objectives, and closing arguments. Students perform these tasks in the context of hypothetical cases.

**Prerequisites** Prior or concurrent enrollment in LAW 606 and LAW 515.

LAW 713 - Interviewing, Counseling and Negotiations  
Credits 2 – 4

Studies three principal forms of lawyering that take place outside the courtroom. Examines issues of client relations, decision-making and ethics in dealing with opponents as well as in guiding clients. Simulated exercises performed by students.

**Prerequisites** LAW 610

LAW 714 - Alternative Dispute Resolution Practicum  
Credits 2 – 4

Engages in simulated situations involving various means of alternative dispute resolution in action,

including simulated forms of mediation, arbitration, and various hybrids of ADR.

**Prerequisites** LAW 531

LAW 715 – Mediation  
Credits 2 – 3

Examines the theory, practice, and public policy of mediation. Focusing particularly on issues of relevance to attorneys representing clients in mediation, the course will include simulations.

**Prerequisites** Majors only or completion of first year law courses or consent of instructor.

LAW 716 - Society of Advocates  
Credits 1 – 3

Students participate in forensic competitions, such as moot court and trial practice, involving legal research and analysis and brief writing as well as oral arguments or other advanced lawyering tasks.

**Prerequisites** LAW 515, majors only; consent of instructor.

LAW 717 - Arbitration  
Credits 2 – 4

Examination of the history and use of arbitration as well as its current legal status. Focus will be on substantive legal doctrines of arbitration particularly enforcement of arbitration agreements, and on arbitration procedure, particularly the manner in which arbitration may be conducted in various contexts.

**Prerequisites** LAW 610

LAW 718 - Advanced Advocacy: Special Topics  
Credits 3

Analysis and writing about complex legal problems and writing documents that would be submitted to a court or quasi-judicial decision-maker.

**Prerequisites** LAW 505 and LAW 515; majors only; consent of instructor.

LAW 719 - Negotiation  
Credits 2 – 3

Examines the theory, practice, and public policy of negotiation. Focusing particularly on issues of relevance to attorneys representing clients in negotiation, the course will include numerous simulations.

**Prerequisites** Majors only or completion of first year law courses or consent of instructor.

LAW 720 - Trial Evidence

Credits 2

This course is designed to move evidence from a group of rules grounded in theory to their application in adversarial proceedings.

**Prerequisites** LAW 606.

LAW 721 - Criminal Evidence

Credits 2

An in-depth exploration of the evidentiary issues that often come into play in criminal trials.

**Prerequisites** LAW 606 and LAW 616.

LAW 722 - International Commercial Arbitration

Credits 2

This course introduces students to the fundamentals of international commercial arbitration, including drafting an effective arbitration clause, selection of arbitrators, proceedings before arbitrators, enforcement, and challenge of awards.

LAW 723 - Economics and the Law

Credits 3

Application of economic analysis to the topics confronted in litigation. Topics include: microeconomic theory, property rights, contracts, torts, discrimination, eminent domain, copyrights, patents, antitrust and criminal law.

**Prerequisites** ECO 302 or MBA 710, or consent of instructor.

LAW 724 - Law Practice Management

Credits 1 – 3

Study how to maintain law practice for clients, including not only law office management but also issues of handling client funds, legal ethics, and economics of successful law practice.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 725 - Gaming Policy Seminar

Credits 1 – 3

Studies gaming policy and sophisticated legal issues surrounding gaming law and regulation, primarily through case studies. Focuses on legislative and

administrative action as well as litigation.

**Prerequisites** Majors only or completion of first-year law courses, LAW 622 or consent of instructor.

LAW 726 - Separation of Powers Law

Credits 2 – 3

Explores the separation of powers in federal constitutional system. Topics covered include allocation of authority in the Constitution relating to the conduct of American foreign policy and the conduct of war-making activities.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 727 - International Human Rights Law

Credits 2 – 3

Studies the norms, procedures, and the actors of international human rights. Explores the U.S. role in international human rights, the US policies that motivate its involvement, and the significance of international human rights as US domestic law. Explores the legal and moral complexities of implementing universal principles of human rights and introduce the mechanics of the practice of human rights domestically and internationally.

**Prerequisites** Majors only or completion of first year law courses or consent of instructor.

LAW 728 - Bioethics and the Law

Credits 2 – 3

Seminar explores law and policy relating to bioethical issues. Coverage of issues varies somewhat based on current events and student interest. Topics may include abortion, genetic screening, defining death, the “right to die,” and research involving human subjects.

**Prerequisites** Majors only, consent of instructor.

LAW 729 - Advanced Legal Research

Credits 1 – 3

Expands the research skills that have been introduced in Lawyering Process I as well as introduce new topics. Focuses on practitioner oriented materials and their use. In addition, research in specific subject areas also explored.

**Prerequisites** Majors only, consent of instructor; LAW 505, LAW 515.

### LAW 730 - Business Bankruptcy

Credits 2 – 3

Studies financially distressed businesses with emphasis on business reorganizations under Chapter 11 of the Bankruptcy Code. Emphasizes lawyering skills and may include students representing parties in a simulated Chapter 11.

**Prerequisites** Majors only, or completion of first year courses or consent of professor; either LAW 605 or LAW 615.

### LAW 731 - Seminar in Race, Gender, Sexual Orientation and the Law

Credits 2 – 3

Students select the specific topics covered. Examines race, ethnicity, culture, gender, and sexual orientation and how legal norms address tensions raised by such diversity.

### LAW 732 - Privacy and Drones

Credits 3

This course examines the legal issues posed by unmanned aerial systems, better known as drones. Topics include the torts for invasion of privacy, Fourth Amendment limits on government surveillance, the First Amendment right to gather information, intellectual property, trespass, product liability, and national security

**Prerequisites** Majors only or completion of first year courses or consent of professor.

### LAW 733 - Advanced Intellectual Property Seminar

Credits 2 – 3

Course covers advanced topics in copyright, trademark and unfair competition law, trade secrets, and patent law.

**Prerequisites** LAW 621, LAW 629, majors only or completion of first-year law courses or consent of instructor.

### LAW 734 - Income Taxation of Estates and Trusts

Credits 1

Examines federal income taxation of estates, trusts, and income in respect of decedent. Considers effect on estate, planning and administration.

**Prerequisites** LAW 603, majors only, completion of first-year courses or consent of instructor.

### LAW 735 - U.S. Taxation of International Transactions

Credits 1 – 3

Examines how the federal income tax applies to outbound (U.S. persons doing business abroad) and in-bound (foreign persons doing business in U.S.) transactions. Also examines tax treaties.

**Prerequisites** LAW 603, majors only or completion of first-year law courses or consent of instructor.

### LAW 736 - Securities Regulation

Credits 1 – 3

A study of federal and state securities regulation, including statutes, administrative rules, decisions and interpretations, cases governing the duties of participants in securities offerings, and other securities transactions. Coverage will include registration, disclosure, and antifraud provisions and, time permitting, may include international and comparative topics.

**Notes** While not required, students without an undergraduate or graduate business degree or comparable work experience are encouraged to take Law 626, prior to taking this course.

**Prerequisites** Completion of first-year law courses or consent of instructor.

### LAW 737 - Workers Compensation

Credits 2-3

Students will gain an effective understanding of Worker's Compensation law, as it is practiced in most jurisdictions, with emphasis on the rights of workers to compensation, the administration of claims and the evaluation of individual cases.

**Prerequisites** Majors only or completion of first year law courses or consent of professor.

### LAW 738 - Death Penalty Seminar

Credits 2-3

This courses addresses the law of capital punishment and constitutional requirements. Emphasis is on Nevada's death penalty statutes and Nevada Supreme Court Death penalty jurisprudence, policy issues implicated by capital punishment, and responsibilities of lawyers who handle capital cases.

**Notes** It is strongly recommended that students complete LAW 653 and LAW 664.

**Prerequisites** Majors only or completion of first year law courses or consent of professor.

LAW 739 - Community Law  
Credits 3-4

Students learn about the law through both classroom study and structured field experiences in which they apply what they learn by providing law-related services to community partners. Students will also develop their awareness of ethical issues, the social and cultural contexts of legal institutions, and the value of civic engagement.

**Prerequisites** Majors only, completion of first-year law courses or consent of instructor.

LAW 750 - Congressional Externship  
Credits 3 – 6

Explores the legislative process by placing students in legislative offices in Washington D.C.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 751 - Judicial Externship  
Credits 3 – 7

Explores the role of the judiciary in the legal system by means of in-class discussions and field placements in judicial chambers in federal and state courts in the state of Nevada.

**Prerequisites** Majors only, consent of instructor.

LAW 752 - Legislative Externship  
Credits 1 – 12

Explores the state legislative process by placing students in the Legislative Counsel Bureau Office in Carson City and Las Vegas. Students are assigned to work with the Legislative Counsel Bureau, the House and Senate Judiciary Committees and interim committees.

**Prerequisites** Majors only or completion of first-year law courses or consent of instructor.

LAW 760 - Law Journal  
Credits 1 – 3

Academic credit for successful completion of work by a member of the Nevada Law Journal.

**Grading** S/F grading only.

**Prerequisites** Successful completion of writing competition and selection by the instructor.

LAW 761 - Gaming Law Journal  
Credits 1-3

Academic credit for successful completion of work by a member of the Gaming Law Journal.

**Notes** May be repeated to a maximum of 6 credits.

**Grading** S/F grading only

**Prerequisites** Graduate standing

LAW 769 - Education Clinic  
Credits 3 – 6

Students will represent children and their adult educational decision makers in educational matters in administrative foray including informal and formal hearings within Nevada school systems and possibly in state and federal court. Students, teamed with professionals from other disciplines, will also work on educational policy and advocacy.

**Prerequisites** Completion of thirty credits; majors only; permission of instructor. Completion of thirty credits; majors only; permission of instructor.

LAW 770 - Family Justice Clinic  
Credits 1 - 6

This clinic explores the role of families in society, the strengths and weaknesses of state intervention into families, and the meaning of access to justice for children and parents. Students represent children, parents or guardians in family cases including termination of parental rights, guardianship, and other family matters. Cases involve contested trials, negotiations, administrative advocacy, and cutting edge legal and policy issues.

**Notes** In order to represent clients in court, students must be licensed under Nevada's student practice rule. Course also has classroom component.

**Prerequisites** Completion of 30 law school credits.

LAW 771 - Juvenile Justice Clinic  
Credits 1 – 6

Under direct supervision of the professor, students represent juveniles in juvenile court and district court proceedings involving charges of criminal conduct. To represent these clients, students must be licensed under Nevada's student practice rule for court appearances. Course also has classroom component.

**Prerequisites** LAW 616, LAW 613, majors only or completion of first-year courses or consent of instructor.

LAW 772 - Special Topics: Mediation Clinic

Credits 1-6

Students will study theories of conflict, negotiation and mediation. They will be exposed to many different models of mediation and learn to choose the interventions and techniques appropriate for different settings. Students receive practical and theoretical training in mediation theory and apply what they learn by mediating live cases in their weekly 4-hour placement in a variety of community venues.

**Prerequisites** Completion of first-year law courses, interviewed by and permission of instructor.

LAW 773 - Government & Public Interest Externship

Credits 1 – 12

Designed to provide experiential learning opportunities in a variety of public law agencies including the offices of the U.S. Attorney, Special Public Defender, Clark County District Attorney, Federal Defender, and others.

**Notes** Supervised fieldwork is coupled with a weekly seminar.

**Corequisite/Prerequisite**

Pre or Corequisite: Professional responsibility.

LAW 774 - Capital Defense Clinic

Credits 1 – 6

Under direct supervision of the professor, students work on legal teams representing capital defendants. The classroom component of the course will emphasize death penalty law, lawyering skills, and professionalism issues.

**Notes** Students must be able to be certified for student practice under the applicable court rules.

**Prerequisites** Second year standing.

LAW 775 - Immigration Clinic

Credits 1 – 6

Under direct supervision of the professor, students represent clients in judicial and administrative proceedings involving immigration and related matters. The course will have a classroom component emphasizing immigration and naturalization law, lawyering and professionalism.

**Notes** Students must be eligible to represent clients under the applicable student practice rules.

LAW 776 - Natural Resources Field Seminar

Credits 2

Course offers students an opportunity to explore advanced natural resources law issues both in the field and through traditional classroom discussion and research. Topics include rangeland management, wildlife management, endangered species protection, forest management, the Colorado ecosystem and fire management.

**Prerequisites** LAW 654 or LAW 620 or consent of instructor.

LAW 777 - Community Law Practicum

Credits 1-2

A "companion course" that students take to add a practical application component to a doctrinal course. Students will work, individually or in teams, on a research, investigative or litigation project, undertaken in collaboration with community partners selected or approved by the professor teaching the doctrinal course.

**Prerequisites** Majors only, completion of first-year law courses or consent of instructor.

LAW 778 - Innocence Clinic

Credits 1-6

This course will teach about the systemic causes of wrongful convictions and the legal remedies for actually innocent clients. Students enrolled in the course will work on Nevada claim of innocence cases referred from the Rocky Mountain Innocence Center and work on policy projects to improve the criminal justice system.

**Prerequisites** Completion of 30 law school credits.

LAW 779 - Appellate Clinic

Credits 1-6

Students will represent clients on appeal in the Ninth Circuit Court of Appeals, the United States Supreme Court, or the Nevada Supreme Court. These appeals may include direct criminal appeals or civil appeals. Students will develop expertise in appellate counseling, strategy, legal research, storytelling, and oral and written advocacy.

**Prerequisites** Completion of 45 law school credits.

LAW 780 - Directed Readings

Credits 1 – 3

Students earn credit for completing readings under the supervision and approval of a faculty member.

**Prerequisites** Majors only; consent of instructor required.

#### LAW 781 - Directed Research

Credits 1 – 3

Students research and write about a legal topic of their choice under the guidance and supervision of a faculty member who has approved their choice of topic. Students further their knowledge of the area, as well as their legal research and writing skills.

**Prerequisites** Majors only, consent of instructor.

#### LAW 782 - Directed Clinical Practice

Credits 0-3

This course enables students to do clinical legal work under the supervision of law school faculty, and to be certified to engage in limited practice as a student attorney under applicable rules.

**Prerequisites** Completion of 30 credits and faculty permission.

#### LAW 783 - Advanced Clinic

Credits 1-3

Offers clinical opportunity for students who have completed an in-house clinic to pursue advanced projects or continue client representation in an ongoing matter. Students may earn 1 to 3 credits based on hours of legal work anticipated: 45 hours for one credit, 90 hours for two credits, 135 hours for three credits.

**Prerequisites** Completion of 30 credits and faculty permission.

#### LAW 790 - Special Topics in Law

Credits 2 – 4

Involves the study of a specialized topic in law that is not covered elsewhere in the law school curriculum.

The particular topic will be announced during registration for the semester in which the course is offered.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Majors only or completion of first year law courses or consent of instructor.



## College of Liberal Arts

The College of Liberal Arts offers doctoral programs in Anthropology, English, History, Political Science, Psychology and Sociology. Eight Masters of Arts degrees along with an M.F.A. in creative writing are also available. Ranging across the college's two subdivisions of the humanities and social sciences, these programs are ably staffed by nationally recognized scholars. These faculty members, who have earned advanced degrees from many of the nation's most prestigious universities, actively pursue research and creative activities that advance their professions and often benefit the larger community. These endeavors are especially important since graduate education requires an understanding of the methodology for producing knowledge as well as the mastery of bodies of information. Small classes and individual attention further enhance the learning experience of each of these programs. In short, prospective graduate students in the College of Liberal Arts may confidently expect to participate in programs characterized by rigorous intellectual pursuit and careful, conscientious instruction.

*Christopher C. Hudgins, Ph.D., Dean*  
*Jennifer Keene, Ph.D., Associate Dean*

## Anthropology

Our program, which has a strong field and laboratory component in addition to coursework, is designed to prepare our graduates to work in a variety of settings, including academia, applied anthropology, cultural resources management, and other research settings.

*Barbara Roth, Ph.D., Chair*  
*Karen Harry, Ph.D., Graduate Coordinator*

## Anthropology Faculty

### Chair

**Roth, Barbara** - *Full Graduate Faculty*  
Professor; B.S. University of Colorado; M.A., Ph.D.,  
University of Arizona. *Rebel since 2002.*

### Graduate Coordinator

**Gray, Peter** - *Full Graduate Faculty*  
Professor, B.A., University of California Los  
Angeles; M.A., Ph.D., Harvard University. *Rebel*  
*since 2005.*

### Graduate Faculty

**Atici, Levent** - *Full Graduate Faculty*  
Associate Professor; B.A., M.A., Ankara University;  
M.A., Ph.D., Harvard University. *Rebel since 2007.*

**Bao, Jiemin** - *Full Graduate Faculty*  
Professor; B.A., Laotian University; M.S., Ph.D.,  
University of California, Berkeley.

**Benyshek, Daniel** - *Full Graduate Faculty*  
Associate Professor; B.A. University of Colorado,  
Denver; M.A., Ph.D., Arizona State University. *Rebel*  
*since 2001.*

**Crittendon, Alyssa** - *Full Graduate Faculty*  
Assistant Professor; B.A. University of California  
Santa Cruz; M.A., Ph.D., University of California  
San Diego. *Rebel since 2012.*

**Frink, Liam** - *Full Graduate Faculty*  
Associate Professor, B.A., M.A., Ph.D., University of  
Wisconsin, Madison. *Rebel since 2005.*

**Harry, Karen** - *Full Graduate Faculty*  
Associate Professor; B.A., Texas A&M University;  
M.A., Ph.D., University of Arizona. *Rebel since*  
*2001.*

**Jankowiak, William** - *Full Graduate Faculty*  
Professor; B.A., State University of New York; B.A.,  
Ph.D., University of California, Santa Barbara. *Rebel*  
*since 1991.*

**Lienard, Pierre** - *Full Graduate Faculty*  
Assistant Professor; Ph.D., Universite Libre de  
Bruxelles. *Rebel since 2008.*

**Martin, Debra** - *Full Graduate Faculty*  
Professor; B.S., Cleveland State University, M.A.,  
Ph.D., University of Massachusetts, Amherst. *Rebel*  
*since 2006.*

**Simmons, Alan H.** - *Full Graduate Faculty*  
Professor; B.A., University of Colorado, Boulder;  
M.A., University of Toronto; M.A., Ph.D., Southern  
Methodist University. *Rebel since 1993.*

### Desert Research Institute Associate Graduate Faculty

**Beck, Colleen**  
Research Professor; B.A., M.A., Ph.D., University of  
California, Berkeley. *Rebel since 1994.*

**Buck, Paul**  
Associate Research Professor; B.A., California State  
University, Chico; M. A., Ph.D., University of  
Washington. *Rebel since 1994.*

**Rhode, David** - *Associate Graduate Faculty*  
Research Professor; B.A., University of California,  
Davis; M.A., Ph.D., University of Washington. *Rebel*  
*since 2000.*

**Johnson, William**  
Director; B.A., Florida International University;  
M.A., University of South Florida; Ph.D., University  
of Florida. *Rebel since 1994.*

### Professors Emeriti

**Knack, Martha**  
Distinguished Professor; B.A., M.A., Ph.D.,  
University of Michigan. *UNLV Emeritus 1977-2008.*

**Lyneis, Margaret M.**  
Emeritus Professor; B.A., University of Washington;  
M.A., Ph.D., University of California, Los Angeles.  
*UNLV Emeritus 1976-2001.*

**Miranda, Malvin**  
Professor; B.A., California State University, Long  
Beach; M.S., Ph.D., University of California, Los  
Angeles. *UNLV Emeritus 1976-2009.*

**Palmer, Gary B.**

Emeritus Professor; B.S., Hamline University; M.S., Ph.D., University of Minnesota. *UNLV Emeritus 1973-2005.*

**Swetnam, John J.**

Professor; B.A., University of Pittsburgh; Ph.D., University of Pennsylvania. *UNLV Emeritus 1973-2008.*

**Urioste, George L.**

Professor; B.A., St. Peter Claver College; Ph.D., Loyola University; B.D., Boston College; M.A., Ph.D., Cornell University. *UNLV Emeritus 1974-2009.*

**Warren, Claude N.**

Emeritus Professor; B.A., M.A., University of Washington; Ph.D., University of California, Los Angeles. *UNLV Emeritus 1969-1997.*

## Doctor of Philosophy - Anthropology

### Plan Description

Our program, which has a strong field and laboratory component in addition to coursework, is designed to prepare our graduates to work in a variety of settings, including academia, applied anthropology, cultural resources management, and other research settings.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. All domestic and international applicants must review and follow the Graduate College Admission & Registration Requirements.
2. Normally, only applicants possessing a master's degree in Anthropology, or its equivalent, from an accredited institution are considered for admission. Students entering with an approved M.A. will not be required to go through the department's M.A. program, but they may be required to take remedial courses in the case of deficiencies. Applicants without an M.A. in Anthropology should have a minimum of 18 semester credit hours in Anthropology distributed among all traditional sub-disciplines of the field.
3. The applicant must have at least a 3.50 (A=4.00) grade point average for previous graduate work.
4. The applicant must submit an example of their previous research, preferably a published paper; a copy of their thesis or a relevant research paper is also acceptable.
5. The applicant must submit a detailed statement of intent (1-2 pages) outlining proposed research. In addition, the applicant must identify specific members of the faculty with whom they may wish to work.

6. Three letters of recommendation must be provided attesting to the applicant's ability to conduct doctoral level work. At least two of the letters must be from academic references.
7. GRE scores are required for admission. There is no required minimum score, but scores will be used in combination with other information in the application to evaluate the applicant. The exam must be taken within five years preceding the deadline for the application to be considered.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Post-Master's Track**

Total Credits Required: 42

Course Requirements

#### **Required Courses - Credits: 8**

ANTH 700A - Proseminar I  
 ANTH 700B - Proseminar II  
 ANTH 703 - Core Concepts in Anthropology  
 ANTH 770 - Quantitative Methods in Anthropology  
 ANTH 790 - Research Design, Professional Ethics, and Grant Writing for Anthropologists

#### **Elective Courses - Credits: 22**

Complete 22 credits of advisor-approved Anthropology electives.

#### **Dissertation - Credits: 12**

ANTH 798 - Dissertation

Degree Requirements

1. A minimum of 30 credits of approved work beyond the M.A. plus 12 credits of

- dissertation must be completed. This will not include remedial courses.
2. Seventeen of the 30 units presented for the degree must be courses with the prefix ANTH at the 700-level (excluding Directed Readings, Independent Study, and Dissertation).
3. The 42 credits and any remedial work must be passed with a grade of B- or better. Classes in which a student receives a C+ or lower will not count towards his or her degree.
4. Any student receiving a C+ or lower will be placed on academic probation. Failure to meet the requirements of probation will result in separation from the graduate program.
5. Within the 42 credits, there will be a cap of four credits each of Independent Study and Directed Readings, and 12 credits for the Dissertation.
6. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
7. The student must pass a comprehensive examination. This exam will cover three topics, selected to relate to the student's dissertation research area. The topics will relate to an area of (a) theory, (b) methodological or topical specialty, and (c) culture area. Students who fail in any portion of the exam will be placed on probation and may retake that portion of the exam any time prior to the end of the semester (excluding summer) following that during which the exam was first taken. A second failure of any portion of the re-taken exam or failure to meet the conditions of probation will result in termination from the doctoral program.

8. After passing the doctoral comprehensive examination, the student must submit to the department a written dissertation proposal approved by the dissertation committee prior to the commencement of fieldwork or research. The student also must present a defense of this proposal to the academic community. After successfully completing these tasks, the student is advanced to candidacy.
9. The student will then conduct approved anthropological research to gather data needed for writing the dissertation. This may involve fieldwork, laboratory research, or research on a theoretical topic, but in any case must represent an original contribution to knowledge.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 2 Requirements: Post-Bachelor's Track**

Total Credits Required: 75

#### Course Requirements

#### **Required Courses - Credits: 11**

ANTH 700A - Proseminar I

ANTH 700B - Proseminar II

ANTH 703 - Core Concepts in Anthropology

ANTH 770 - Quantitative Methods in Anthropology

ANTH 790 - Research Design, Professional Ethics, and Grant Writing for Anthropologists

#### **Elective Courses - Credits: 16-22**

Anthropology electives to be determined in consultation with your advisor. Students completing a thesis must complete a minimum of 16 credits of elective coursework, and students completing a professional paper must complete a minimum of 22 credits of elective coursework.

#### **Culminating Experience - Credits: 6 (Optional)**

ANTH 797 - Thesis

**After successfully completing the requirements above, students are eligible to earn the Master of Arts in Anthropology.**

#### **Elective Courses - Credits: 30**

Complete 30 credits of advisor-approved Anthropology electives.

#### **Dissertation - Credits: 12**

ANTH 798 - Dissertation

#### Degree Requirements

1. A minimum of 75 credits of approved work beyond the bachelor's must be completed. This will not include remedial courses.
2. A minimum of 33 credits of approved work beyond the bachelor's must be completed for the M.A. degree.
3. Fourteen (for students completing a thesis) or seventeen (for students completing a professional paper) of the 33 units presented for the M.A. degree must be courses with the prefix ANTH at the 700-level (excluding Directed Readings, Independent Study, and Thesis).
4. A minimum of 30 credits of approved work beyond the M.A. plus 12 credits of dissertation (42 credits total) must be completed for the Ph.D. degree.
5. Fifteen of the 30 units presented for the Ph.D. degree must be courses with the prefix ANTH at the 700-level (excluding Directed Readings and Independent Study).
6. The 75 credits and any remedial work must be passed with a grade of B- or better. Classes in which a student receives a C+ or

- lower will not count towards his or her degree.
7. Any student receiving a C+ or lower will be placed on academic probation. Failure to meet the requirements of probation will result in separation from the graduate program.
  8. Within the 75 credits, there will be a cap of four credits each of Independent Study and Directed Readings, and 12 credits for the Dissertation.
  9. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
  10. In consultation with his/her advisor, and as approved by the student's committee, the student will complete one of two options for an MA in Anthropology en route to receiving their PhD: a) write a publishable professional paper or b) write a thesis. In consultation with the student, the student's committee will decide which option the student will take. Each of these options will require a committee defense and department defense.
  11. The student must pass a comprehensive examination. This exam will cover three topics, selected to relate to the student's dissertation research area. The topics will relate to an area of (a) theory, (b) methodological or topical specialty, and (c) culture area. Students who fail in any portion of the exam will be placed on probation and may retake that portion of the exam any time prior to the end of the semester (excluding summer) following that during which the exam was first taken. A second failure of any portion of the re-taken exam or failure to meet the conditions of probation will result in termination from the doctoral program.

12. After passing the doctoral comprehensive examination, the student must submit to the department a written dissertation proposal approved by the dissertation committee prior to the commencement of fieldwork or research. The student also must present a defense of this proposal to the academic community. After successfully completing these tasks, the student is advanced to candidacy.
13. The student will then conduct approved anthropological research to gather data needed for writing the dissertation. This may involve fieldwork, laboratory research, or research on a theoretical topic, but in any case must represent an original contribution to knowledge.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's and Doctoral portions of the program.
2. The student must submit and successfully defend his/her thesis or professional paper by the posted deadline. The defense must be advertised and is open to the public.
3. If a thesis is completed, the student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
4. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
5. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

## Master of Arts - Anthropology

### Plan Description

Our program, which has a strong field and laboratory component in addition to coursework, is designed to prepare our graduates to work in a variety of settings, including academia, applied anthropology, cultural resources management, and other research settings.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. All domestic and international applicants must review and follow the Graduate College Admission & Registration Requirements.
2. In addition to the general admission requirements established by the Graduate College, the applicant should have earned 18 semester credit hours in anthropology accepted by the department, with at least a 3.00 average in those courses. It is preferred that as many of the four subdisciplines as possible be represented among those courses and approximately one half of the 18 hours be at the upper-division level.
3. Applicants must submit a research paper representative of their undergraduate work. If the student did not major in anthropology as an undergraduate, a research paper in another field indicative of the student's ability is acceptable.
4. Applicants must also submit an explicit letter of intent.
5. GRE scores are required for admission. There is no required minimum score, but scores will be used in combination with other information in the application to evaluate the applicant. The exam must be taken within five years preceding the

deadline for the application to be considered.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 33

Course Requirements

#### Required Courses – Credits: 11

ANTH 700A - Proseminar I

ANTH 700B - Proseminar II

ANTH 703 - Core Concepts in Anthropology

ANTH 770 - Quantitative Methods in Anthropology

ANTH 790 - Research Design, Professional Ethics, and Grant Writing for Anthropologists

#### Elective Courses – Credits: 16

Complete 16 credits of advisor-approved Anthropology electives.

#### Thesis – Credits: 6

ANTH 797 - Thesis

Degree Requirements

1. A minimum of 27 credits of approved work at the graduate level plus 6 credits of thesis must be completed.
2. Seventeen of the 27 units presented for the degree must be courses with the prefix ANTH at the 700-level (excluding Directed Reading, Independent Study, and Thesis).
3. Classes in which a student receives a C+ or lower will not count towards his or her degree.
4. Any student receiving a C+ or lower will be placed on academic probation. Failure to meet the requirements of probation will result in separation from the graduate program.
5. Up to four credits each of Directed Reading and Independent Study can be applied

toward the degree but may be taken only after acceptance into the Graduate College.

6. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member outside the department will be assigned by the Graduate College. Another outside member may be added at the department's discretion. Please see Graduate College policy for committee appointment guidelines.
7. The student must submit to the department a written thesis research proposal approved by the thesis committee prior to the commencement of fieldwork or research. The student also must present a defense of this proposal to the thesis committee.
8. After successfully completing these tasks, the student will then conduct approved anthropological research to gather data needed for writing the thesis. This may involve fieldwork, laboratory research, or research on a theoretical topic.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Anthropology Courses**

#### **AAS 636 - Politics of Racial Ambiguity**

Credits 3

Interdisciplinary investigation of contemporary American black/white multiracial identities, including analyses and assessments of the multiracial identity movement in the United States.

**Notes** This course is crosslisted with AAS 436. Credit at the 600-level requires additional work.

#### **ANTH 609 - Economic Anthropology**

Credits 3

Comparative study of preliterate and peasant economic systems, with particular attention paid to the relation of these systems to the social and cultural arrangements of these societies.

**Notes** This course is crosslisted with ANTH 409. Credit at the 600-level requires additional work.

#### **ANTH 617 - Evolution & Culture: 'Darwinian'**

Models of Culture

Credits 3

Humans depend on complex cultures for their survival. Why it is the case, how it is made possible and how fundamentally culture affects humans have always been essential focuses of the anthropological research. The courses will present the main models of cultural evolution found currently in the anthropological literature.

**Notes** This course is crosslisted with ANTH 417. Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing.

#### **ANTH 620 - Magic, Witchcraft, and Religion**

Credits 3

Examines the ways non-western people experience "religion" in official and unofficial domains. Provides a conceptual framework for analyzing the way cultures outside the U.S. organize reality to gain an awareness of the interrelationship between cosmology, religion, and personhood and an appreciation of the cultural diversity found around the world.

**Notes** This course is crosslisted with ANTH 420. Credit at the 600-level requires additional work.



ANTH 622 - Psychological Anthropology

Credits 3

Examines how culture influences the development of character and conduct in non-western societies.

Provides cross-cultural research findings on socialization, aggression, sexual behavior, mental illness and social pathology. Research findings from small-scale and complex societies from around the globe are evaluated.

**Same as** ANTH 422

**Notes** This course is crosslisted with ANTH 422.

Credit at the 600-level requires additional work.

ANTH 626 - Medical Anthropology

Credits 3

Overview of medical anthropology, covering such topics as disease and human evolution, ecology of disease, and culture-centered approaches in the field, including ethnomedicine (cross-cultural conceptions of health and illness), healers in global perspective, and medicine practiced in clinical and public health settings in societies around the world.

**Notes** This course is crosslisted with ANTH 426.

Credit at the 600-level requires additional work.

ANTH 627 - Cultures and Cognition

Credits 3

Focuses on the interactions between culture, cognition and behavior. Explores a variety of non-western cultures to identify how social and psychological perspectives are formed and influence behavior. Models and case studies found in social sciences are used to discuss the relationship between cognition and cultural behaviors.

**Notes** This course is crosslisted with ANTH 427.

Credit at the 600-level requires additional work.

**Prerequisites** ANTH 101 or ANTH 102 or ANTH 105 or equivalent.

ANTH 630 - Anthropology and Ecology

Credits 3

Focuses on the biocultural processes by which people adapt to their environments around the world. Human genetic, developmental and behavioral responses to environments considered across a range of cultural contexts. Topics include human growth, reproduction, diet, disease, resource use and sociopolitical structures.

**Notes** This course is crosslisted with ANTH 430.

Credit at the 600-level requires additional work.

ANTH 633 - Theories of Cultural Change

Credits 3

Mechanisms of change such as invention, diffusion, revitalization movements, devolution, urbanization, and acculturation. In addition, forms of forcible change such as colonialism and conquest, rebellion and revolt covered.

**Notes** This course is crosslisted with ANTH 433.

Credit at the 600-level requires additional work.

ANTH 634 - Ethnohistory

Credits 3

Methodological study applying anthropological concepts to early written sources and recorded oral tradition. Cross-cultural comparisons.

**Notes** This course is crosslisted with ANTH 434.

Credit at the 600-level requires additional work.

ANTH 636 - History of Anthropology

Credits 3

History of the intellectual developments within anthropology.

**Notes** This course is crosslisted with ANTH 436.

Credit at the 600-level requires additional work.

ANTH 638 - Ethnographic Field Methods

Credits 3

Surveys methods and techniques of field work. Students do weekly ethnographic projects and write short reports.

**Notes** This course is crosslisted with ANTH 438.

Credit at the 600-level requires additional work.

ANTH 640B - Archaeology of the Great Basin

Credits 3

Explores the prehistory of the Great Basin and surrounding areas, including the Mojave Desert. Examines the Paleoindian, Archaic, and later prehistoric occupation of the region, focusing on the evidence archaeologists use to reconstruct past behavior and how the environment influenced prehistoric peoples in the area.

**Notes** This course is crosslisted with ANTH 440B.

Credit at the 600-level requires additional work.

ANTH 640C - Archaeology of the Southwest

Credits 3

Prehistory of the American Southwest, focusing on development of the Anasazi, Hohokam and Mogollon cultures and their antecedents 2000 B.C. to A.D. 1500.

**Notes** This course is crosslisted with ANTH 440C. Credit at the 600 level requires additional work.

ANTH 641B - Near Eastern and Mediterranean Prehistory  
Credits 3  
Reviews Near Eastern and Mediterranean archaeology from the earliest evidence of humans in the region through the origins and development of farming and food production. Examines foundations for civilization in Egypt and Mesopotamia and the colonization of islands of the Mediterranean Sea.  
**Notes** This course is crosslisted with ANTH 441B. Credit at the 600-level requires additional work.

ANTH 643 - Environmental Archaeology  
Credits 3  
Examines human adaptations to various environments, techniques from the environmental sciences. Analysis of ancient human and environmental interactions stressing arid lands. Human impacts upon the landscape, constraints imposed by ecological variables, and techniques used in environmental reconstruction.  
**Notes** This course is crosslisted with ANTH 443. Credit at the 600-level requires additional work.

ANTH 644 - Bioarchaeology  
Credits 3  
Method and theory for the study of human remains in archaeological contexts.  
**Formerly** ANTH 673  
**Notes** This course is crosslisted with ANTH 444. Credit at the 600 level requires additional work.

ANTH 649A - Ceramic Analysis in Archaeology  
Credits 3  
Introduction to the laboratory analysis of archeological ceramics. Emphasizes theories and techniques used to reconstruct past human behavior from the study of prehistoric and historic ceramics.  
**Notes** This course is crosslisted with ANTH 449A. Credit at the 600 level requires additional work.

ANTH 649B - Lithic Artifact Analysis  
Credits 3

Designed to provide general background on lithics and lithic analysis. Explores lithic technology, typology, and interpretations of lithic assemblage variability.

**Notes** This course is crosslisted with ANTH 449B. Credit at the 600-level requires additional work.

ANTH 649D - Zooarchaeology Laboratory  
Credits 3  
Enables students to identify, document, analyze, interpret, and report archaeological animal bone assemblages. Addresses theoretical, methodological, and analytical issues that are significant in designing and conducting zooarchaeological research.  
**Formerly** ANTH 649C  
**Notes** This course is crosslisted with ANTH 449D. Credit at the 600 level requires additional work.  
**Prerequisites** Consent of instructor

ANTH 654 - Ethnoarchaeology  
Credits 3  
Theoretical foundations, methods, and issues associated with an ethnoarchaeological approach. Explores present interactions of people within their environments and the formation, patterns, and meaning of the archaeological record.  
**Notes** This course is crosslisted with ANTH 454. Credit at the 600 level requires additional work.  
**Prerequisites** Consent of instructor

ANTH 655 - Archaeological Theory  
Credits 3  
Surveys major theoretical approaches used in archaeology. Examines historical development of these theories and discusses their practical application.  
**Notes** This course is crosslisted with ANTH 455. Credit at the 600 level requires additional work.

ANTH 656 - Archaeology of Technology  
Credits 3  
Explores the methodological and theoretical developments in archaeological research on technology and the challenges of connecting materials with human behavior and intent in the past.  
**Notes** This course is crosslisted with ANTH 456. Credit at the 600 level requires additional work.  
**Prerequisites** Consent of instructor

ANTH 658 - Origins of Inequality: A Cross-cultural Perspective

Credits 3

This course uses origins of inequality to understand how societies and their culture developed differently across time and space. A cross-cultural emphasis enables the student to appreciate the factors responsible for the rise of different modes of sociopolitical organization around the globe and to realize the complexity of human experience.

**Notes** This course is crosslisted with ANTH 458. Credit at the 600-level requires additional work.

ANTH 662 - Human Osteology: Archaeological and Forensic Applications

Credits 4

Utilization of physical anthropological methods of bone analysis applied to the identification of human and non-human skeletal remains.

**Notes** This course is crosslisted with ANTH 462. Credit at the 600 level requires additional work.

ANTH 664 - Dental Anthropology: Archaeological and Forensic Applications

Credits 3

Dental morphology, growth and development, and dental variability in modern populations. Techniques used to reveal information about past diets, health, and behavior. Forensic odontology. Major stages in the evolution of the dentition, with particular focus on primate and human dental evolution. Lab fee required.

**Notes** This course is crosslisted with ANTH 464. Credit at the 600-level requires additional work.

ANTH 665 - Human Growth and Aging

Credits 3

Explores, how humans grow, mature, and age in a variety of non-western cultures. Addresses social and biological factors that shape peoples' decisions about when to begin reproducing, how many offspring to have, when to wean, and style of parenting, as well as those impacting physical age changes and lifespan.

**Notes** This course is crosslisted with ANTH 465. Credit at the 600-level requires additional work.

ANTH 667 - Health and Disease in Antiquity

Credits 3

Covers paleopathology, or, the study of disease in ancient populations. Provides an overview of

morbidity and mortality over the last 20,000 years for many different populations from around the globe. Information on disease is drawn from human skeletal and mummified remains, and from archaeological reconstructions of lifestyle and diet.

**Notes** This course is crosslisted with ANTH 467. Credit at the 600-level requires additional work.

ANTH 669 - Evolution and Biology of Human Behavior

Credits 3

Reviews relevant theory and primary approaches—evolutionary psychology and behavioral ecology—for investigating human behavior from an evolutionary perspective. Topics include cooperation, mate choice, parenting, pair bonding, aggression, language and culture.

**Notes** This course is crosslisted with ANTH 469. Credit at the 600 level requires additional work.

ANTH 671 - Evolution of Human Sexuality

Credits 3

Examines human sexuality from an evolutionary perspective. Major themes include basics of evolutionary theory, comparisons with other non-human primates, cross-cultural and historical variation in human sexuality and consideration of the neuroendocrine bases of sexual behavior. Topics include sexual selection, mating systems, and sexual orientation.

**Notes** This course is crosslisted with ANTH 471. Credit at the 600-level requires additional work.

ANTH 672 - Hormones and Human Behavior

Credits 3

Covers the dynamic field of human hormones and behavior. Emphasis is given to human naturalistic and clinical studies. Cross-cultural and comparative nonhuman primate findings are highlighted. Topics addressed include sex differences, sexual behavior, parenting, aggression, and the stress response.

**Notes** This course is crosslisted with ANTH 472. Credit at the 600-level requires additional work.

**Prerequisites** Equivalent of 3 credit hours in Physical Anthropology, Biology, or Psychology.

ANTH 673R - Anthropology of Violence

Credits 3

An overview on the history of aggression, violence and trauma in human groups. Interpersonal and

institutional forms of violence are examined from an anthropological perspective. The goal of the course is to explore a number of theoretical frameworks used by anthropologists to understand violence.

**Notes** This course is crosslisted with ANTH 473.

Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing.

ANTH 675 - Evolutionary Medicine

Credits 3

This course provides an introduction to evolutionary medicine, a relatively new and exciting field that emphasizes the interplay between human evolutionary history, adaptation, and proximate mechanisms. Examples are drawn from societies around the world. Topics include growth, reproduction, diet, activity patterns, aging and infectious and chronic disease.

**Notes** This course is crosslisted with ANTH 475.

Credit at the 600-level requires additional work.

ANTH 685 - Language and Culture

Credits 3

Examines the interaction of language and culture, focusing on basic aspects of linguistics, models for the study of language use, and intersections of language with gender, power, and status cross-culturally.

**Notes** This course is crosslisted with ANTH 485.

Credit at the 600-level requires additional work.

ANTH 686 - Language and Gender

Credits 3

Examines from an anthropological perspective the ways in which language and gender intertwine. Explores how language emerges from, reproduces, and challenges ideas of gender and gendered practices cross-culturally. Topics covered include interaction of gender with race, identity and class in language use.

**Notes** This course is crosslisted with ANTH

486. Credit at the 600-level requires additional work.

ANTH 700A - Proseminar I

Credits 1

Orientation for entering anthropology graduate students. Presents the program's expectations and policies, and introduces students to faculty research and expertise within the department.

**Grading** S/F grading only.

**Prerequisites** Graduate standing/permission of instructor.

ANTH 700B - Proseminar II

Credits 1

Continuation of the orientation begun in ANTH 700A. Develops students' appreciation of professionalism and develops the skills necessary for academic presentations. Presents the current research of advanced anthropology graduate students.

**Grading** S/F grading only.

**Prerequisites** Graduate standing/permission of instructor.

ANTH 701 - Directed Reading in Anthropological Literature

Credits 1-4

**Notes** May be repeated to a maximum of six credits.

**Grading** S/F grading only.

ANTH 703 - Core Concepts in Anthropology

Credits 3

Course explores the intellectual foundations of critical thinking and practice in Anthropology (Cultural, Biological, Archaeology, and Linguistics). Examines anthropological theory as it has been manifested in studies of human evolution, cultural materialism, historical analysis, and cultural interpretation.

**Prerequisites** Graduate standing.

ANTH 735 - Seminar on Classic Ethnographies

Credits 3

Classic ethnographies read in the original, selected to represent a wide range of culture types, culture areas, and theoretical perspectives. Broadens and deepens students' control of the professional database, while exploring how data support theoretical constructs and how theory in turn informs ethnographic methods and descriptions.

**Prerequisites** Graduate standing.

ANTH 736 - Problems in North American Ethnology

Credits 3

Selected cases from Native North America used to learn logic and methods for resolving conflicts in ethnographic data and data interpretation. Impact of those arguments and decisions on significant current theoretical constructs pursued.

**Prerequisites** Graduate standing.

ANTH 741 - Seminar in Cultural Processes

Credits 3

Theories of culture change on selected topics.

**Notes** Topics to be announced. May be repeated to a maximum of 12 credits.

**Prerequisites** Consent of instructor.

ANTH 743 - Seminar in Method and Theory in Cultural Anthropology

Credits 3

Research and discussion of selected topics relating to data gathering, interpretation, or theoretical explanation in sociocultural anthropology. Specific topics and instructor vary.

**Notes** May be repeated to a maximum of six credits.

ANTH 744 - Identity, Culture and Power

Credits 3

Examines how transnational migration and globalization affect our understanding of identity, culture, and power relations. What is identity? Why isn't identity fixed? What is the relationship between the local and the global? Seminar explores these questions focusing on themes of identity, culture, and power.

ANTH 746 - Gender, Sexuality, Race and Flexible Citizenship

Credits 3

Analyzes how gender and sexuality converge with race and class, and how people negotiate gender, sexual and racial differences. Explores the concept of cultural citizenship among different ethnic groups in relation to sex/gender and race.

**Prerequisites** Graduate standing.

ANTH 749 - Archaeology of Colonialism in the Americas

Credits 3

Explores the archaeology and descendant experience of colonialism in the Americas. Examines archaeological, ethnohistoric, ethnographic, and oral historic data to explore the variability and patterns of the colonial process.

**Prerequisites** Permission of instructor

ANTH 751 - Seminar on Current Problems in Archaeology

Credits 3

**Notes** May be repeated to a maximum of six credits.

ANTH 753 - Seminar in Cultural Adaptations to Arid Environments

Credits 3

Addresses the problems of human cultural adaptations to arid environments, with special attention given to technological and social responses to these environments.

**Prerequisites** ACC 703

ANTH 754 - Archaeology and Paleoecology of the Great Basin

Credits 3

Examines paleoenvironments and prehistory of the Great Basin and intermountain west, including Nevada and surrounding states. Issues include Pleistocene and Holocene paleoenvironmental reconstruction, Paleoindian and Archaic adaptations, Fremont culture, and spread of Numic-speaking populations. Field trip.

**Prerequisites** Graduate standing or consent of instructor.

ANTH 755 - Seminar in Archaeological and Historic Preservation

Credits 3

Management of archaeological resources; laws and policies protecting archaeological sites, methods of identification, and evaluation of archaeological resources; the interface of archaeological preservation and archaeology as a scientific discipline.

ANTH 756 - Archaeology of Hunter-Gatherers

Credits 3

Course examines hunter-gatherers throughout the world, focusing on paleoenvironment, land use, subsistence, and social interaction.

**Prerequisites** Consent of instructor.

ANTH 757 - Seminar in Southwestern Archaeology

Credits 3

Examines the prehistoric societies of the American Southwest, including the Hohokam, Mogollon, and Anasazi; issues include origins, social organization, subsistence, production, distribution and exchange, and the dynamics of change in the region.

**Prerequisites** ANTH 418 or consent of instructor.

ANTH 758 - Seminar in Agricultural Origins

Credits 3

Examines the circumstances surrounding the transition from hunting and gathering to food production throughout the world. Evaluates both the theoretical framework and empirical database for understanding this transition and the consequences of the shift to agricultural production.

ANTH 761 - Seminar on Current Thought in Physical Anthropology

Credits 3

Topics to be announced.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor.

ANTH 762 - Laboratory Seminar on Osteology

Credits 3

'Hands-on' class relevant to research and analysis in human osteology and palaeopathology. Laboratory analysis of osteological and palaeopathology materials available in the Physical Anthropology Laboratory. Methods of age, sex, ethnic determinations, discrete morphological, anthropometric, and palaeopathological research and analysis.

**Prerequisites** ANTH 462

ANTH 763 - Paleoanthropology

Credits 3

Current issues in and evidence for human biocultural evolution. Include finding, dating, and naming fossil hominids, the effect of climate on hominid evolution, as well as issues in paleobiology, functional anatomy, prehistoric archaeology, and geomorphology.

**Prerequisites** Consent of instructor.

ANTH 764 - Seminar: Medical Anthropology

Credits 3

Explores the evolution and cross-cultural understanding of human health, healing and disease. Includes extensive examination and critical evaluation of evolutionary, biocultural and culturally-centered approaches in medical anthropology.

**Prerequisites** Consent of instructor.

ANTH 770 - Quantitative Methods in Anthropology

Credits 3

Provides practical introduction to the uses of computers for statistical analysis, data gathering and storage, computer modeling and computer-assisted instruction as applies in anthropology. Every student

carries out one or more projects requiring the use of computers.

**Prerequisites** MIS 101 or CSC 115 or equivalent or consent of instructor.

ANTH 790 - Research Design, Professional Ethics, and Grant Writing for Anthropologists

Credits 3

Class components include ethics relating to data acquisition and sharing, formulating cohesive and compelling research questions, and the mechanics of proposal preparation required in professional practice. All students will be required to prepare and present a research proposal.

**Prerequisites** Graduate standing or consent of instructor.

ANTH 796 - Cultural Resource Management Internship

Credits 3

Students work with an archaeologist both in field and office situations, focusing on identification and evaluation of sites; writing technical reports and examining the development of correspondence between federal agencies and contracting archaeologists.

**Prerequisites** One field class (ANTH 453, 485, 486) and one lab class (ANTH 452, 458) or one summer field school (ANTH 487, 488), senior or graduate standing and recommendation of UNLV faculty coordinator.

ANTH 797 - Thesis

Credits 3 – 6

**Notes** May be repeated but only six credits will be applied to the student's program.

**Grading** S/F grading only.

ANTH 798 - Dissertation

Credits 3 – 12

**Notes** May be repeated but only 12 credits will be applied to the student's program.

**Grading** S/F grading only.

ANTH 799 - Independent Research

Credits 1 – 4

**Notes** May be repeated to a maximum of six credits.

**Grading** S/F grading only.

## English

The Department of English offers programs of study leading to the Master of Arts, Master of Fine Arts, and Doctor of Philosophy degrees. The M.A. program involves course work at the graduate level in English and American literature or in language studies. Work toward this degree is designed to supplement and complete the student's undergraduate study in the field of English and to familiarize the student with professional standards, methods of research, and modes of thought in the discipline. Possession of this degree normally leads to professional advancement for the secondary school or community college teacher; to a career in writing, publishing and editing; or to further study in English at the doctoral level.

The M.F.A. program is designed to be a three-year, intensive studio arts terminal degree with a strong international emphasis and requires the writing of a book-length creative thesis in either fiction or poetry. The objectives of the M.F.A. degree are to enable the student to master the craft of writing in the chosen genre to a publishable level; to train the student in both traditional literary topics and writing pedagogy to the end of a teaching career at the college or university level; and to provide the student with an international perspective on both the creation and publication of fiction or poetry and on the teaching and appreciation of literature.

The Ph.D. program is a highly specialized program designed to train a student for a career in teaching at the college or university level through the acquisition of skills in research, original thought, and academic writing. The doctoral program is focused on literary study although a concentration of six credits may be earned in composition studies. At the time of admission the student chooses, with the approval of her or his advisor, three areas in which to specialize: (1) a chronological period, (2) a literary genre, and (3), an additional chronological period, a major author chosen from outside the selected chronological period, or a special topic. All subsequent course work is devoted to developing a high degree of professional competence and knowledge in the three chosen areas of specialization.

Such knowledge is tested in a qualifying examination and is also the basis upon which the student writes a doctoral dissertation.

The department also offers a program leading to the degree of Doctor of Philosophy in English with a Creative Dissertation. This program centers on the study of English and American literature and is designed to train a student for a career in the teaching of English at the college or university level, as well as for a career in writing, editing, and publishing. The program of study includes course work in English and Creative Writing, a Qualifying Examination, and a Creative Dissertation. Differences in admission requirements and degree requirements between the two Ph.D. programs are indicated below. Additional details for the admission requirements and the degree requirements for each degree can be found on the English Department website.

*Richard L. Harp, Ph.D., Chair*

*Christopher Decker, Ph.D., Graduate Coordinator*

## English Faculty

### Acting Chair

#### **Revell, Donald** - Full Graduate Faculty

Professor; B.A., Harpur College at Binghamton University; M.A., State University of New York at Binghamton; Ph.D., State University of New York at Buffalo. *Rebel since 2008.*

### Graduate Coordinator

#### **Decker, Christopher** - Full Graduate Faculty

Associate Professor; B.A., Yale University; Ph.D., Cambridge University. *Rebel since 2004.*

### Director of Creative Writing

#### **Keelan, Claudia** - Full Graduate Faculty

Professor; B.A., Humboldt State University; M.F.A., University of Iowa. *Rebel since 1996.*

### Graduate Faculty

#### **Becker-Leckrone, Megan** - Full Graduate Faculty

Associate Professor; B.A., Bryn Mawr College; M.A., Ph.D., University of California, Irvine. *Rebel since 1999.*

#### **Bowers, John M.** - Full Graduate Faculty

Professor; B.A., Duke University; M.A., Ph.D., University of Virginia; M.Phil., Oxford University. *Rebel since 1987.*

#### **Brown, Stephen** - Full Graduate Faculty

Professor; B.A., University of California, Santa Barbara, M.A., Ph.D., University of South Florida. *Rebel since 2002.*

#### **Campbell, Felicia Florine** - Full Graduate Faculty

Professor; B.S., M.S., University of Wisconsin, Madison; Ph.D., United States International University, San Diego. *Rebel since 1962.*

#### **Chapman, Maile** - Full Graduate Faculty

Assistant Professor; B.A. Evergreen State College; M.F.A., Syracuse University; Ph.D., University of Nevada, Las Vegas. *Rebel since 2011.*

#### **Erwin, Timothy** - Full Graduate Faculty

Professor; B.A., Marquette University; M.A., Ph.D., University of Chicago. *Rebel since 1990.*

#### **Gajowski, Evelyn** - Full Graduate Faculty

Professor; B.A., Cleveland State University; M.A., Ph.D., Case Western Reserve University. *Rebel since 1991.*

#### **Hafen, Jane** - Full Graduate Faculty

Professor; B.A., M.A., Brigham Young University; Ph.D., University of Nevada, Las Vegas. *Rebel since 1993.*

#### **Harp, Richard L.** - Full Graduate Faculty

Professor; B.A., Ph.D., University of Kansas; M.A., Boston College. *Rebel since 1975.*

#### **Hay, John** - Full Graduate Faculty

Assistant Professor; B.A., University of Pittsburgh; M.A., M. Phil., Ph.D., Columbia University. *Rebel since 2013.*

#### **Jablonski, Jeffrey** - Full Graduate Faculty

Associate Professor; B.A., M.A., State University of New York College at Buffalo; Ph.D., Purdue University. *Rebel since 2000.*

#### **Lee, Julia** - Full Graduate Faculty

Assistant Professor; A.B., Princeton University; Ph.D., Harvard University. *Rebel since 2013.*

#### **Mays, Kelly J.** - Full Graduate Faculty

Associate Professor; B.A., Emory University; Ph.D., Stanford University. *Rebel since 2001.*

#### **Nagelhout, Edwin** - Full Graduate Faculty

Professor; B.A., California State University-Fullerton; M.A., Ph.D., Purdue University. *Rebel since 2005.*

#### **Perez, Vincent** - Full Graduate Faculty

Associate Professor; B.A., University of California, Santa Cruz; M.A., Ph.D., Stanford University. *Rebel since 1999.*

#### **Rosenberg, Beth Carole** - Full Graduate Faculty

Associate Professor; B.A., Douglass College, Rutgers University; M.S., Ph.D., New York University. *Rebel since 1994.*



**Rusche, Philip** - *Full Graduate Faculty*

Associate Professor; B.A., M.A., Emory University; M.A., M.Phil., Ph.D., Yale University. *Rebel since 1998.*

**Setina, Emily** - *Full Graduate Faculty*

Assistant Professor; B.A., Davidson College; Ph.D., Yale University. *Rebel since 2014.*

**Stevens, Anne** - *Full Graduate Faculty*

Associate Professor; B.A., University of Chicago; M.A., Ph.D., New York University. *Rebel since 2004.*

**Tillery, Denise** - *Full Graduate Faculty*

Associate Professor; B.A., Ph.D., University of New Mexico; M.A., University of North Carolina. *Rebel since 2004.*

**Unger, Douglas** - *Full Graduate Faculty*

Professor; B.A., University of Chicago; M.F.A., University of Iowa. *Rebel since 1991.*

**Whitney, Charles** - *Full Graduate Faculty*

Professor; B.A., San Francisco State College; Ph.D., City University of New York. *Rebel since 1988.*

**Professors Emeriti**

**Coburn, W. Leon**

Emeritus Associate Professor; B.A., University of New Mexico; M.A., Ph.D., University of California, Davis. *Joined UNLV 1969.*

**Dodge, Robert K.**

Emeritus Professor; B.A., Rice University; M.A., Ph.D., University of Texas. *Joined UNLV 1970.*

**Engberg, Norma J.**

Emerita Associate Professor; B.A., George Washington University; M.A., University of Florida; Ph.D., University of Pennsylvania. *Joined UNLV 1969.*

**Geuder, Patricia**

Emerita Associate Professor; B.A., M.E., University of Nevada, Reno; Ph.D., University of New Mexico. *Joined UNLV 1969.*

**Hazen, James F.**

Emeritus Professor; B.A., Princeton University; M.S., Ph.D., University of Wisconsin. *Joined UNLV 1971.*

**Irsfeld, John H.**

Emeritus Professor; B.A., M.A., Ph.D., University of Texas. *Joined UNLV 1969.*

**McCullough, Joseph B.** - *Full Graduate Faculty*

Emeritus Distinguished Professor; B. Ed., Gonzaga University; M.A., Ph.D., Ohio University. *Joined UNLV 1969.*

**Unrue, Darlene Harbour**

Emerita Distinguished Professor; B.A., M.A., Marshall University; Ph.D., The Ohio State University. *Joined UNLV 1972.*

**Unrue, John C.**

Emeritus Professor; B.A., M.A., Marshall University; Ph.D., The Ohio State University. *Joined UNLV 1970.*

**Weinstein, Mark A.**

Emeritus Distinguished Professor; B.A., Cornell University; M.A., Ph.D., Yale University. *Joined UNLV 1970.*

**Wiley, Richard** - *Full Graduate Faculty*

Emeritus Professor; B.A., University of Puget Sound; M.A., Sophia University; M.F.A., University of Iowa. *Rebel since 1989.*

## Doctor of Philosophy - English

### Plan Description

The Ph.D. program is a highly specialized program designed to train students for careers in teaching at the college or university level and to develop in them a capacity for research, original thought, and writing that ordinarily accompanies such careers. The doctoral program is focused on literary study although a concentration of six credits may be earned in composition studies. At the time of admission the student chooses three areas in which to specialize: (1) a chronological period, (2) a literary genre, and (3) either an additional chronological period, a major author chosen from outside the selected chronological period and approved by the graduate committee, or a special topic approved by the graduate committee. All subsequent course work is devoted to developing a high degree of professional competence and knowledge in the three chosen areas of specialization. Such knowledge is tested in a qualifying examination and is also the basis upon which the student writes a doctoral dissertation.

The department, in conjunction with the International Institute of Modern Letters, also offers a program leading to the degree of Doctor of Philosophy – English with a Creative Dissertation. This program centers on the study of English and American literature and is designed to train students for careers in the teaching of English at the college or university level, as well as for careers in writing, editing, and publishing. The program of study includes course work in English and Creative Writing, a Qualifying Examination, and a Creative Dissertation. Differences in the requirements for admission and degree requirements between the two Ph.D. programs are indicated below. Additional details for the admission requirements and the degree requirements for each degree can be found on the English Department website.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

Learning outcomes for specific subplan tracks can be found below:

- Doctor of Philosophy - English
- Doctor of Philosophy - Creative Writing with Creative Dissertation

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. All domestic and international applicants must review and follow the Graduate College Admission & Registration Requirements.
2. Applicants must possess an M.A. in English from a regionally accredited institution with at least 21 credits in English and American literature on the graduate transcript and a graduate GPA of 3.50 or better.
  1. Students wishing to enter the Creative Writing Track may possess either an M.A. in English as stated above or an M.F.A. in Creative Writing from an accredited institution.
3. Applicants must submit the following to the English department:
  1. Applicants must send one official set of transcripts from all colleges or universities attended to the Graduate College and one unofficial set directly to the English Department.
  2. Official scores on the Verbal portion of the General Test and the Literature in English Subject Test of the Graduate Record Examination.
  3. Three letters of recommendation specifically for Ph.D. study from professors of English.
  4. Two or three writing samples totaling at least 30 pages of literary criticism, history or analysis and offering substantial evidence of the student's ability to do work at the doctoral level.
    1. Students wishing to enter the Creative Writing

Track must submit a 50-page (or longer) writing sample of the candidate's creative work, to be read and judged by the Creative Writing faculty.

5. A letter of application to the Graduate Committee stating the applicant's reasons for wanting to enter the program and the intended areas of specialization.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: English Literature Track**

Total Credits Required: 48

Course Requirements

#### **Required Course – Credits: 3**

ENG 703 - Survey of Literary Criticism and Theory

#### **Elective Courses – Credits: 33**

Complete 33 credits in graduate-level advisor-approved English courses.

#### **Dissertation – Credits: 12 credits**

ENG 799 - Dissertation

Degree Requirements

1. Of the required 36 course credits, all credits must be taken at the 700-level. Six of these may be earned with a concentration in Composition Studies.
2. Courses completed at a grade below a B will not count towards the degree, and any student receiving more than one grade below

a B will be separated from the graduate program.

3. Only 6 credits of Independent Study can be applied to the program.
4. Only 3 credits of ENG 798 (Doctoral Research) can be applied to a program.
5. Demonstration of reading knowledge of two foreign languages or proficiency in one. Proficiency in a language is demonstrated by completion of two upper-division or graduate courses in the literature of that language with a B or better; or by passing a translation test administered and evaluated by English Department faculty fluent in that language.
6. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
7. Qualifying Examinations: Superior performance is required on qualifying examinations in the student's three areas of specialization. These examinations consist of three four-hour written exams: one in the historical period of specialization, one in the genre of specialization, and a third in an additional chronological period, a major author approved by the graduate committee, or a special topic approved by the graduate committee, and a two-hour oral examination. For more information visit the English department's website here: [English Literature PhD Requirements](#).
8. After passing the Qualifying Examination, and normally in the third or fourth year of the program, the student will begin a doctoral dissertation under the direction of an Advisor and a Thesis Committee approved by the Graduate Director of the Department. The Prospectus for this Dissertation must be approved, and the Dissertation written, under the close

supervision of the Advisor and the Thesis Committee. The doctoral dissertation involving original thought and superior scholarship on a topic or author in English or American literature, or world literature in English.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 2 Requirements: Creative Dissertation Track**

Total Credits Required: 48

#### Course Requirements

#### **Required Course – Credits: 6**

Complete 6 credits in one of the following:

ENG 705 - Creative Writing

ENG 796 - Independent Study

#### **Elective Courses – Credits: 30**

Complete 30 credits in non-creative writing English courses.

Credits may include ENG 729 - Forms of Fiction or Poetry , to be taken once.

Credits may not include ENG 791 - College Teaching in Language and Literature

#### **Dissertation – Credits: 12**

ENG 799 - Dissertation

#### Degree Requirements

1. Of the required 36 course credits, all credits must be taken at the 700-level.
2. Courses completed at a grade below a B will not count towards the degree, and any student receiving more than one grade below a B will be separated from the graduate program.
3. Only 6 credits of Independent Study can be applied to the program.
4. Only 3 credits of ENG 798 (Doctoral Research) can be applied to the program.

5. Demonstration of reading knowledge of one foreign language.
6. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
7. Qualifying Examinations: Superior performance is required on qualifying examinations in the student's three areas of specialization. These examinations consist of three four-hour written exams: one in the historical period of specialization, one in the genre of specialization, and a third in an additional chronological period, a major author approved by the graduate committee, or a special topic approved by the graduate committee, and a two-hour oral examination. For more information visit the English department's website here: Creative Dissertation PhD Requirements.
8. After passing the Qualifying Examination, and normally in the third or fourth year of the program, the student will begin a doctoral dissertation under the direction of an Advisor and a Thesis Committee approved by the Graduate Director of the Department. The Prospectus for this Dissertation must be approved, and the Dissertation written, under the close supervision of the Advisor and the Thesis Committee. The doctoral dissertation involving original thought and superior scholarship on a topic or author in English or American literature, or world literature in English.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Master of Arts - English

### Plan Description

The M.A. program involves course work at the graduate level in English and American literature or in language studies with a thesis optional, but recommended, for the literature emphasis and required for the language studies emphasis. Work toward this degree is designed to supplement and complete the student's undergraduate study in the field of English and to familiarize the student with professional standards, methods of research, and modes of thought in the discipline. Possession of this degree normally leads to advancement in the teaching profession for the secondary school or community college teacher, to careers in writing, publishing and editing, or to further study in English at the doctoral level.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. Applicants must meet the minimum requirements of the Graduate College, including holding an undergraduate GPA of 2.75 or better from a regionally accredited college or university. In addition, the English department requires a minimum of 21 credits in English courses above the Freshman Composition level.
2. Applicants must submit the following:
  1. Two letters of recommendation, which can be uploaded directly through the online system.
  2. A letter of application to the Graduate Committee that includes a statement of purpose and reasons the applicant wants to study English at the graduate level at the University of Nevada, Las Vegas.

3. Applicants must send one official set of transcripts from all colleges or universities attended to the Graduate College and one unofficial set directly to the English Department.
  4. A minimum of ten pages of critical writing
  5. Official scores on the Verbal portion of the General Test and the Literature in English Subject Test of the Graduate Record Examination
3. Applicants must demonstrate competency in the reading of one foreign language. This requirement may be satisfied by earning a B or better in WLC 198 or by passing a translation examination (with aid of a dictionary if desired) administered and evaluated by the English Department.
  4. Students who did not take History of the English Language (ENG 414A) as undergraduates must add it to their master's program either as 414A or 614A. If it is taken as 414A, it will not count toward the 30 required hours. If it is taken as 614A, it may be used toward the 30 hours with the permission of the student's advisor.
  5. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Literature Emphasis Track**

Total Credits Required: 30

Course Requirements

### **Required Courses – Credits: 3**

ENG 700 - Bibliography and Methods

### **Literature Courses in Periods before 1800 – Credits: 9**

Complete three of the following courses:

ENG 632A - Chaucer  
 ENG 634A - Shakespeare: Tragedies  
 ENG 634B - Shakespeare: Comedies and Histories  
 ENG 635A - Milton  
 ENG 640A - Medieval English Literature  
 ENG 640B - Gender and Early Literature  
 ENG 641A - The Renaissance  
 ENG 641B - Gender and Renaissance Literature  
 ENG 642A - The Seventeenth Century  
 ENG 643A - Restoration and Augustan Literature  
 ENG 643C - Later Eighteenth Century  
 ENG 652A - American Literature, 1620-1800  
 ENG 660A - Heroic Epic  
 ENG 663A - Classical Drama in Translation  
 ENG 670A - The British Novel I  
 ENG 673A - The Early American Novel  
 ENG 695A - Early African-American Literature  
 ENG 665B - Restoration and Eighteenth-Century Drama  
 ENG 720 - Studies in Medieval Literature  
 ENG 722 - Studies in Chaucer  
 ENG 723 - Studies in the Renaissance  
 ENG 724 - Studies in Early Seventeenth-Century Literature  
 ENG 725 - Studies in Shakespeare  
 ENG 728 - Studies in Milton  
 ENG 731 - Studies in Restoration and Eighteenth-Century British Literature

### **Literature Courses in Periods after 1800 – Credits: 9**

Complete three of the following courses:

ENG 645B - Victorian Poetry  
 ENG 645C - Nineteenth-Century Prose Writers  
 ENG 646A - Modern British Literature  
 ENG 652B - American Literature, 1800-1865  
 ENG 653A - American Literature, 1865-1918  
 ENG 653B - American Literature, 1918-Present  
 ENG 654B - Gender and Modern American

Literature

ENG 662C - Modern American Poetry  
ENG 666A - Nineteenth-Century Drama  
ENG 667A - Modern British Drama  
ENG 667B - Modern American Drama  
ENG 670B - The British Novel II  
ENG 671A - Modern English Novel  
ENG 671B - Contemporary English Novel  
ENG 673B - The Modern American Novel  
ENG 673C - The Contemporary American Novel  
ENG 695B - Modern African-American Literature  
ENG 734 - Studies in English Romanticism  
ENG 735 - Studies in Victorian Literature  
ENG 738 - Studies in Modern British Literature  
ENG 742 - Studies in Early American Literature  
ENG 743 - Studies in Later American Literature  
ENG 744 - Studies in Modern American Literature  
ENG 787 - Studies in Modern Comparative Literature

**Elective Courses – Credits: 3-9**

Students completing the Thesis must complete a minimum of 3 credits of elective coursework, while students who choose not to complete a thesis must complete 9 credits of elective coursework. Elective credits may be in any period or area.

ENG 632A - Chaucer  
ENG 634A - Shakespeare: Tragedies  
ENG 634B - Shakespeare: Comedies and Histories  
ENG 635A - Milton  
ENG 640A - Medieval English Literature  
ENG 640B - Gender and Early Literature  
ENG 641A - The Renaissance  
ENG 641B - Gender and Renaissance Literature  
ENG 642A - The Seventeenth Century  
ENG 643A - Restoration and Augustan Literature  
ENG 643C - Later Eighteenth Century  
ENG 645B - Victorian Poetry  
ENG 645C - Nineteenth-Century Prose Writers  
ENG 646A - Modern British Literature  
ENG 652A - American Literature, 1620-1800  
ENG 652B - American Literature, 1800-1865  
ENG 653A - American Literature, 1865-1918  
ENG 653B - American Literature, 1918-Present  
ENG 654B - Gender and Modern American Literature  
ENG 660A - Heroic Epic

ENG 662C - Modern American Poetry  
ENG 663A - Classical Drama in Translation  
ENG 665B - Restoration and Eighteenth-Century Drama  
ENG 666A - Nineteenth-Century Drama  
ENG 667A - Modern British Drama  
ENG 667B - Modern American Drama  
ENG 670A - The British Novel I  
ENG 670B - The British Novel II  
ENG 671A - Modern English Novel  
ENG 671B - Contemporary English Novel  
ENG 673A - The Early American Novel  
ENG 673B - The Modern American Novel  
ENG 673C - The Contemporary American Novel  
ENG 695A - Early African-American Literature  
ENG 695B - Modern African-American Literature  
ENG 720 - Studies in Medieval Literature  
ENG 722 - Studies in Chaucer  
ENG 723 - Studies in the Renaissance  
ENG 724 - Studies in Early Seventeenth-Century Literature  
ENG 725 - Studies in Shakespeare  
ENG 728 - Studies in Milton  
ENG 731 - Studies in Restoration and Eighteenth-Century British Literature  
ENG 734 - Studies in English Romanticism  
ENG 735 - Studies in Victorian Literature  
ENG 738 - Studies in Modern British Literature  
ENG 742 - Studies in Early American Literature  
ENG 743 - Studies in Later American Literature  
ENG 744 - Studies in Modern American Literature  
ENG 760 - Studies in Literary Genres  
ENG 775 - Studies in Literary Criticism  
ENG 795 - Seminar  
ENG 787 - Studies in Modern Comparative Literature

**Thesis – Credits: 6 (Optional)**

ENG 797 - Thesis

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 2 Requirements: Language/Composition Theory Track**

Total Credits Required: 30

Course Requirements

**Required Courses – Credits: 3**

Select one of the following courses:

ENG 700 - Bibliography and Methods  
ENG 704 - Theory and Practice of Textual Editing

**Language/Composition Courses – Credits: 12**

Select four of the following courses:

ENG 611A - Advanced Linguistics  
ENG 611B - Principles of Modern Grammar  
ENG 612C - Seminar in Language and Cognition  
ENG 614B - Development of American English  
ENG 701 - Contemporary Composition Theory  
ENG 702 - History of Rhetoric and Composition  
ENG 711 - Studies in Language  
ENG 712 - Studies in Modern Grammar  
ENG 719 - Area Linguistics  
ENG 792 - Directed Studies in Language

**Literature Courses in any Period – Credits: 9**

Complete 9 credits from the following courses:

ENG 632A - Chaucer  
ENG 634A - Shakespeare: Tragedies  
ENG 634B - Shakespeare: Comedies and Histories  
ENG 635A - Milton  
ENG 640A - Medieval English Literature  
ENG 640B - Gender and Early Literature  
ENG 641A - The Renaissance  
ENG 641B - Gender and Renaissance Literature  
ENG 642A - The Seventeenth Century  
ENG 643A - Restoration and Augustan Literature  
ENG 643C - Later Eighteenth Century  
ENG 645B - Victorian Poetry  
ENG 645C - Nineteenth-Century Prose Writers  
ENG 646A - Modern British Literature  
ENG 652A - American Literature, 1620-1800  
ENG 652B - American Literature, 1800-1865  
ENG 653A - American Literature, 1865-1918  
ENG 653B - American Literature, 1918-Present

ENG 654B - Gender and Modern American Literature  
ENG 660A - Heroic Epic  
ENG 662C - Modern American Poetry  
ENG 663A - Classical Drama in Translation  
ENG 665B - Restoration and Eighteenth-Century Drama  
ENG 666A - Nineteenth-Century Drama  
ENG 667A - Modern British Drama  
ENG 667B - Modern American Drama  
ENG 670A - The British Novel I  
ENG 670B - The British Novel II  
ENG 671A - Modern English Novel  
ENG 671B - Contemporary English Novel  
ENG 673A - The Early American Novel  
ENG 673B - The Modern American Novel  
ENG 673C - The Contemporary American Novel  
ENG 695A - Early African-American Literature  
ENG 695B - Modern African-American Literature  
ENG 720 - Studies in Medieval Literature  
ENG 722 - Studies in Chaucer  
ENG 723 - Studies in the Renaissance  
ENG 724 - Studies in Early Seventeenth-Century Literature  
ENG 725 - Studies in Shakespeare  
ENG 728 - Studies in Milton  
ENG 731 - Studies in Restoration and Eighteenth-Century British Literature  
ENG 734 - Studies in English Romanticism  
ENG 735 - Studies in Victorian Literature  
ENG 738 - Studies in Modern British Literature  
ENG 742 - Studies in Early American Literature  
ENG 743 - Studies in Later American Literature  
ENG 744 - Studies in Modern American Literature  
ENG 760 - Studies in Literary Genres  
ENG 775 - Studies in Literary Criticism  
ENG 795 - Seminar  
ENG 787 - Studies in Modern Comparative Literature

**Thesis – Credits: 6**

ENG 797 - Thesis

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements



*See Plan Graduation Requirements below.*

### **Plan Degree Requirements**

1. No more than a total of 6 credit hours may be selected from 600-level courses.
2. A comprehensive examination is required of each M.A. student, who will choose either a three-hour written exam or a sixty- to ninety-minute oral exam and prepare a reading list for the examination with the supervision and approval of the advisor and the examination committee. The reading list will comprise at least twenty authors, and the selections should recognize diversity of genre, gender, culture, and period. At least seventeen of those authors should be chosen from the master reading list on the English Department website. Three other authors not on the master list may be added. If taken during the semester of graduation, the exam must be scheduled no later than three weeks before the end of classes. The Graduate College designates deadline dates for each semester. See [graduatecollege.unlv.edu](http://graduatecollege.unlv.edu).
3. A master's thesis, which carries six credits, is optional (although recommended) for the literary study emphasis. It is normally written during two consecutive semesters and must conform to the guidelines set forth by the Graduate College in this catalog and in its Thesis and Dissertation Manual.
  - a. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
  - b. The M.A. thesis should be an original contribution to knowledge about a suitable literary or linguistic subject and comprise

about seventy-five pages. Thesis projects must be designed, developed, and written in close consultation with an appropriate thesis advisor and with the student's thesis committee.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully pass the comprehensive exam and submit the Final Exam Results by the posted deadline.
3. If a thesis is completed, the student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
4. If a thesis is completed, the student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Master of Fine Arts - Creative Writing

### Plan Description

The MFA international program at UNLV enables writers to begin recognizing themselves and their art in relation to a larger understanding of writing. The program's commitment to world literature provides a unique MFA experience that differs from many traditional creative writing programs. Admitted students follow a three-year program that includes literature and writing courses, time abroad, completion of a poetry or fiction manuscript, a literary translation, and a critical essay. In addition, the MFA program at UNLV is the nation's only creative writing program that gives credit to students who wish to spend their time abroad in the Peace Corps. The program's international emphasis is derived from the belief that the best writing is done by individuals who know that literature is something created from more than mere self-expression, and that great books are written by the few who know their gift is connected to the world they live in and strive to create dialogue between private imagination and public concern. Graduates of UNLV's MFA program have gone on to secure tenure track teaching jobs, gain admission to Ph.D. programs in creative writing, publish books, and enter the workforce as editors, writers, and arts administrators. UNLV also routinely supports recent graduates with part-time teaching opportunities in the department.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. All domestic and international applicants must review and follow the Graduate College Admission & Registration Requirements.

2. Applicants for the M.F.A. in Creative Writing must submit the following to the English department:
  1. A strong manuscript of either poetry or fiction for consideration, of approximately 10-15 pages for poetry and 20-30 pages for fiction. The primary consideration for admission is the quality of the manuscript as judged by the Creative Writing faculty.
  2. A letter of application to the Graduate Committee that includes a statement of purpose and reasons the applicant wants to study creative writing at the University of Nevada, Las Vegas.
  3. Applicants must send one official set of transcripts from all colleges or universities attended to the Graduate College and one unofficial set directly to the English Department.
  4. Two letters of recommendation to be sent directly to the department. There is a wide range of acceptability with regard to an applicant's previous record of studies and major field of specialization as an undergraduate.
  5. Scores for the Verbal portion of the General test of the Graduate Record Examination.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

### Subplan 1 Requirements: International Focus Track

Total Credits Required: 54

Course Requirements

### **Creative Writing Course – Credits: 12**

Complete 9 credits in the chosen genre of concentration (either poetry or fiction) and 3 credits in another genre.

ENG 705 - Creative Writing

### **Required Courses – Credits: 6**

ENG 739 - M.F.A. Translation

ENG 749 - M.F.A. Critical Essay

### **Forms of Fiction or Poetry Course – Credits: 9**

ENG 729 - Forms of Fiction or Poetry  
ENG 729 - Forms of Fiction or Poetry

### **Elective Courses – Credits: 9**

Complete 9 credits of graduate literature courses not offered by the creative writing faculty of the Department of English.

### **Independent Study – Credits: 6**

ENG 794 - Independent Study - International Focus

### **Thesis – Credits: 12**

ENG 790 - M.F.A. Thesis

### **Degree Requirements**

1. Independent Study: International Focus
  1. 3 credits for the completion of a significant translation of superior quality from a language other than English and 3 credits for the writing of a substantial scholarly essay of at least 5,000 words on some aspect of a major world writer or field of literary study.
  2. The strong international emphasis of the M.F.A. in Creative Writing requires all students to spend at least one semester or summer abroad in a non-English speaking country and to earn at least six credits toward the M.F.A. by enrolling in a university, school, or institute abroad and/or by

Independent Study guided and monitored by a member of the Creative Writing faculty. For applicants with strong experience and demonstrable study and residency in a non-English speaking country and with significant foreign language skills, the study abroad requirement may be waived at the discretion of the Creative Writing faculty and of the Graduate College. The six required credits must then be earned in some other way.

2. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
3. All candidates for the M.F.A. degree are required to write a creative thesis in either poetry or fiction and to complete at least 12 credits toward the creative thesis requirement by intensive work in conference with members of the faculty. The creative thesis for the M.F.A. will be a book-length manuscript and must conform to the guidelines set forth by the Graduate College in this catalog and in its Thesis and Dissertation Manual. The M.F.A. creative thesis will only be passed and the M.F.A. degree granted when the creative thesis is judged to be a substantial creative work of high seriousness and literary merit in the opinion of the Creative Writing faculty and the student's creative thesis committee.

### **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline.

The defense must be advertised and is open to the public.

3. Student must submit his/her approved, properly formatted document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 2 Requirements: Peace Corps Track**

Total Credits Required: 42

Course Requirements

#### **Creative Writing Course – Credits: 12**

Complete 9 credits in the chosen genre of concentration (either poetry or fiction) and 3 credits in another genre.

ENG 705 - Creative Writing

#### **Required Courses – Credits: 6**

ENG 739 - M.F.A. Translation

ENG 749 - M.F.A. Critical Essay

#### **Forms of Fiction or Poetry Course – Credits: 9**

ENG 729 - Forms of Fiction or Poetry

#### **Elective Courses – Credits: 6**

Complete 6 credits of graduate literature courses not offered by the creative writing faculty of the Department of English.

#### **Thesis – Credits: 9**

ENG 790 - M.F.A. Thesis

Degree Requirements

1. Through the Peace Corps Master's International Partnership, students must apply to the Peace Corps during their first or second year in the program.
2. The entire program is a four-year obligation. Students complete their course work in two years instead of the usually required three, and write a thesis during their two-year Peace Corps assignment.

3. Students receive an MFA when they complete their Peace Corps assignment, receive a resettlement allowance, and experience the Peace Corps firsthand.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. All candidates for the M.F.A. degree are required to write a creative thesis in either poetry or fiction and to complete at least 12 credits toward the creative thesis requirement by intensive work in conference with members of the faculty. The creative thesis for the M.F.A. will be a book-length manuscript and must conform to the guidelines set forth by the Graduate College in this catalog and in its Thesis and Dissertation Manual. The M.F.A. creative thesis will only be passed and the M.F.A. degree granted when the creative thesis is judged to be a substantial creative work of high seriousness and literary merit in the opinion of the Creative Writing faculty and the student's creative thesis committee.

Graduation Requirements

1. The student must submit all required forms to the Graduate College.
2. Upon return from the Peace Corps, students must:
  1. Have faculty submit a grade change form for any X grades
  2. Apply for graduation and pay the fee
  3. If the student cannot graduate in the semester in which they return, they must enroll in 6 graduate credits in the next semester
3. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.

4. Student must submit his/her approved, properly formatted document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements*

## **English Courses**

### **ENG 601A - Advanced Composition**

Credits 3

Explores writing and literacy. Students will develop greater awareness of themselves as strategic writers by studying and creating texts for different audiences, purposes and contexts in a variety of styles and genres.

### **ENG 602A - Advanced Creative Writing II**

Credits 3

Advanced workshop designed to hone students' skills in writing fiction or poetry.

**Notes** This course is crosslisted with ENG 402A. Credit at the 600-level requires additional work.

### **ENG 605B - Research and Editing**

Library research, as distinct from experimental or laboratory research, and report writing and editing for students in all disciplines.

**Notes** This course is crosslisted with ENG 405B. Credit at the 600-level requires additional work.

### **ENG 605C - Writing For Publication**

Intensive study of the business of writing, designed to serve the needs of the freelance writer. Includes discussion of literary markets and popular literary genres.

**Notes** This course is crosslisted with ENG 405C. Credit at the 600-level requires additional work.

### **ENG 607B - Fundamentals of Technical Writing**

Credits 3

Examines the rhetorical principles and composing practices necessary for writing effective technical documents and the role of writing in technical and industrial settings.

### **ENG 608A - Tutorial Techniques in English**

This undergraduate course, when taught by a member of the graduate faculty, may be used toward graduate degrees with the permission of advisor (maximum: six credits). A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

### **ENG 609A - Visual Rhetoric**

Study of the persuasive and aesthetic effects that

visual elements have on readers/users in print and online documents. Visual elements include typography, graphics, images, color, paper or screen textures, alignment, and multimedia.

**Notes** This course is crosslisted with ENG 409A. Credit at the 600-level requires additional work.

ENG 609B - Rhetoric and the Environment  
Studies discourse about environmental topics using classical and contemporary rhetorical theory. The focus is on non-fiction prose and specialized genres including websites and technical documents. Students will learn a theoretical framework to analyze environmental discourse, and also gain practice in producing works of environmental rhetoric.

**Notes** This course is crosslisted with ENG 409B. Credit at the 600-level requires additional work.

ENG 611A - Advanced Linguistics  
Credits 3

Applies the principles of linguistics to the analysis of English poetry and prose.

**Notes** This course is crosslisted with ENG 411A. Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 611B - Principles of Modern Grammar  
Credits 3

Surveys the structure of contemporary English grammar. Examines the workings of the English language from a linguistic perspective, concentrating primarily on sentence structure.

**Notes** This course is crosslisted with ENG 411B. Credit at the 600-level requires additional work.

ENG 612C - Seminar in Language and Cognition  
Credits 3

This undergraduate course, when taught by a member of the graduate faculty, may be used toward graduate degrees with the permission of advisor (maximum: six credits). A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

ENG 614A - History of the English Language  
Credits 3

History and development of the English language from its beginnings.

**Notes** This course is crosslisted with ENG 414A.

Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 614B - Development of American English  
Credits 3

Introduction to the history of the English language in America and to the regional and social varieties of English which have resulted from this development. Includes survey of distinctively American vocabulary, pronunciation, spelling, and syntax.

**Formerly** ENG 614

**Notes** This course is crosslisted with ENG 414B. Credit at the 600-level requires additional work.

ENG 614C - Old English II  
Credits 3

Continuation of the study of Old English through the reading of more complex literary texts such as Beowulf, the poems of the Exeter Book, the writings of Aelfric, etc.

**Notes** This course is crosslisted with ENG 415C. Credit at the 600-level requires additional work.

ENG 615B - Old English I  
Credits 3

Study of the language and literature of England in the Anglo-Saxon period. After a review of the grammar, students will read basic prose and poetry in Old English. English majors may substitute this course for one semester of foreign language.

**Formerly** ENG 614B

**Notes** This course is crosslisted with ENG 415B. Credit at 600-level requires additional work.

ENG 616A - Special Problems in English

This undergraduate course, when taught by a member of the graduate faculty, may be used toward graduate degrees with the permission of advisor (maximum: six credits). A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

ENG 616C - Special Problems in English  
Credits 1-6

Workshops in language and literature. May be repeated.

**Notes** This course is crosslisted with ENG 416C. Credit at the 600-level requires additional work.

ENG 622A - Topics in Literary Theory

Credits 3

Selected topics and issues in literary and cultural theory.

**Notes** This course is crosslisted with ENG 422A.

Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 625A - Themes of Literature

Credits 3

Study of themes, ideas, or literary attitudes significant in literary history.

**Notes** This course is crosslisted with ENG 425A.

Credit at the 600-level requires additional work. May be repeated to a maximum of nine credits.

ENG 626A - Religion and Literature

Credits 3

Insights and relationships of religious themes, beliefs, and assumptions as they may bear upon the analysis of literary texts.

**Notes** This course is crosslisted with ENG 426A.

Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing

ENG 626B - Mythology

Credits 3

Study of mythologies, such as Greek, Roman, and Native American, in cultural context.

**Notes** This course is crosslisted with ENG 426B.

Credit at the 600-level requires additional work.

ENG 627B - Gender and Literature

Credits 3

Study of gender and literature through the ages.

Focus may be aesthetic, historical, or thematic.

Topics may vary.

**Same as** WMST 427B

**Notes** This course is crosslisted with ENG 427B.

Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 629A - Early American Humor

Credits 3

Investigation of the writings of American humorists from the eighteenth century through Mark Twain.

Examines works by anonymous writers as well as humorists of New England, the Old Southwest, and the Far West.

**Notes** This course is crosslisted with ENG 429A.

Credit at the 600-level requires additional work.

ENG 629B - Modern American Humor

Credits 3

Investigation of the writings of American humorists from the mid-nineteenth century to the present, including the works of Mark Twain, James Thurber, Dorothy Parker, Woody Allen, and Tom Robbins.

**Notes** This course is crosslisted with ENG 429B.

Credit at the 600-level requires additional work.

ENG 629C - Literature of the American West

Credits 3

Study of literature of the American West.

**Notes** This course is crosslisted with ENG 429C.

Credit at the 600-level requires additional work.

ENG 630A - Major Figures in British Literature

Credits 3

Seminar on one or more major figures in English literature.

**Notes** This course is crosslisted with ENG 340A.

Credit at the 600-level requires additional work.

ENG 632A - Chaucer

Credits 3

Study of the works of Geoffrey Chaucer, with emphasis on the Canterbury Tales.

**Notes** This course is crosslisted with ENG 432A.

Credit at the 600-level requires additional work.

ENG 634A - Shakespeare: Tragedies

Credits 3

Intensive study of Shakespeare's major tragedies.

**Notes** This course is crosslisted with ENG 434A.

Credit at the 600-level requires additional work.

ENG 634B - Shakespeare: Comedies and Histories

Credits 3

Intensive study of Shakespeare's major comedies and histories.

**Notes** This course is crosslisted with ENG 434B.

Credit at the 600-level requires additional work.

ENG 635A - Milton

Credits 3

Intensive study of Milton's poetry and selected prose.

**Notes** This course is crosslisted with ENG 435A.

Credit at the 600-level requires additional work.

ENG 636A - Major Figures in American Literature  
Credits 3

Seminar on one or more major figures in American literature.

**Notes** This course is crosslisted with ENG 436A.  
Credit at the 600-level requires additional work.

ENG 640A - Medieval English Literature  
Credits 3

Study of the literature written in England from the sixth through the fifteenth century. Topics may include dream visions, romance, heroic poetry, saints' lives, etc.

**Notes** This course is crosslisted with ENG 440A.  
Credit at the 600-level requires additional work.

ENG 640B - Gender and Early Literature  
Credits 3

Study of gender, sexuality, and literature from the beginning to the Early Modern period. Topics may vary.

**Notes** This course is crosslisted with ENG 440B.  
Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 641A - The Renaissance  
Credits 3

Study of English literature of the sixteenth century, primarily Elizabethan.

ENG 641B - Gender and Renaissance Literature  
Credits 3

Study of gender and literature in the Renaissance.  
**Notes** This course is crosslisted with ENG 441B.  
Credit at the 600-level requires additional work.

ENG 642A - The Seventeenth Century  
Credits 3

Study of English literature from 1603 to 1660.

ENG 643A - Restoration and Augustan Literature  
Credits 3

Study of British literature from 1660 to 1740. Topics may include the genres of neoclassical drama and mock-epic, satire from Dryden through the Scriblerians, the periodical essay, and the birth of aesthetics.

ENG 643C - Later Eighteenth Century  
Credits 3

Study of eighteenth-century British literature after 1740. Topics may include the growth in female authorship, the Johnson circle, and cultural contexts such as feminism and nationalism.

**Notes** This course is crosslisted with ENG 443C.  
Credit at the 600-level requires additional work.

ENG 644B - The Romantic Poets  
Credits 3

Major poets in the Romantic Movement.

**Notes** This course is crosslisted with ENG 444B.  
Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 645B - Victorian Poetry  
Credits 3

Poetry of the middle and later nineteenth century.

**Notes** This course is crosslisted with ENG 445B.  
Credit at the 600-level requires additional work.

ENG 645C - Nineteenth-Century Prose Writers  
Credits 3

Major prose writers of the Romantic and Victorian periods and their intellectual and literary milieu.

**Notes** This course is crosslisted with ENG 445C.  
Credit at the 600-level requires additional work.

ENG 646A - Modern British Literature  
Credits 3

Study of British writing since 1900, including fiction, drama, and poetry.

**Notes** This course is crosslisted with ENG 446A.  
Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 646B - Gender and Modern British Literature  
Credits 3

Study of gender and literature in the British tradition. Topics may vary.

**Same as** WMST 446B

**Notes** This course is crosslisted with ENG 446B.  
Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 652A - American Literature, 1620-1800  
Credits 3

Study of American writing through 1800.

**Notes** This course is crosslisted with ENG 452A.  
Credit at the 600-level requires additional work.



ENG 652B - American Literature, 1800-1865

Credits 3

Study of American literature from 1800 to 1865.

**Notes** This course is crosslisted with ENG 452B.

Credit at the 600-level requires additional work.

ENG 653A - American Literature, 1865-1918

Credits 3

Study of American literature from the Civil War through World War I.

**Notes** This course is crosslisted with ENG 453A.

Credit at the 600-level requires additional work.

ENG 653B - American Literature, 1918-Present

Credits 3

Study of American literature from 1918 to the present.

**Notes** This course is crosslisted with ENG 453B.

Credit at the 600-level requires additional work.

ENG 654B - Gender and Modern American Literature

Credits 3

Study of gender and literature in the American tradition. Topics may vary.

**Notes** This course is crosslisted with ENG 454B.

Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 660 - The American Short Story

Credits 3

Survey of the short story in America from the beginnings to modern times.

**Formerly** ENG 674A

**Notes** This course is crosslisted with ENG 460.

Credit at the 600-level requires additional work.

ENG 660A - Heroic Epic

Credits 3

Comparative approach to the forms, themes, and manners of performance of the epic and closely related genres.

**Notes** This course is crosslisted with ENG 460A.

Credit at the 600-level requires additional work.

ENG 661A - The Study of Poetry and Poetics

Credits 3

Provides the student with the basic tools for the intelligent reading of poetry by extensive reading of poetry by English and American authors.

**Notes** This course is crosslisted with ENG 461A.

Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 662A - Modern British Poetry

Credits 3

Study of British poetry since 1900.

**Notes** This course is crosslisted with ENG 462A.

Credit at the 600-level requires additional work.

ENG 662C - Modern American Poetry

Credits 3

Study of American poetry since 1900.

**Notes** This course is crosslisted with ENG 462C.

Credit at the 600-level requires additional work.

ENG 663A - Classical Drama in Translation

Credits 3

Study of major Greek and Latin playwrights.

**Same as** CLA 450

**Notes** This course is crosslisted with ENG 463A.

Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 664A - English Drama to 1642

Credits 3

Survey of medieval and Renaissance drama to the closing of the theaters.

**Notes** This course is crosslisted with ENG 464A.

Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 665B - Restoration and Eighteenth-Century Drama

Credits 3

Survey of English drama from 1660 to 1800.

**Notes** This course is crosslisted with ENG 465B.

Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 666A - Nineteenth-Century Drama

Credits 3

Study of world drama in the nineteenth century.

**Notes** This course is crosslisted with ENG 466A.

Credit at the 600-level requires additional work.

ENG 667A - Modern British Drama

Credits 3

Study of British drama from Shaw to the present.

**Notes** This course is crosslisted with ENG 467A.  
Credit at the 600-level requires additional work.

ENG 667B - Modern American Drama  
Credits 3

Study of American drama since 1900.

**Notes** This course is crosslisted with ENG 467B.  
Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 670A - The British Novel I  
Credits 3

Study of the British novel from its origins to about 1800. Topics may include the rise of the novel from the materials of romance and realism, the formative decade of the 1740s, and the sub genres of Gothic and historical fiction.

ENG 670B - The British Novel II  
Credits 3

Study of the British novel from about 1800 to 1914. Topics may include the role of serialization and circulating library and sub genres such as the bildungsroman, the social-problem novel, and imperial Gothic.

ENG 671A - Modern English Novel  
Credits 3

British fiction from Conrad to 1945.

**Notes** This course is crosslisted with ENG 471A.  
Credit at the 600-level requires additional work. May be repeated to a maximum of 6 credits.

ENG 671B - Contemporary English Novel  
Credits 3

British fiction since 1945.

**Notes** This course is crosslisted with ENG 471B.  
Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 673A - The Early American Novel  
Credits 3

Study of the development of the novel in America to the time of Twain.

**Notes** This course is crosslisted with ENG 473A.  
Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 673B - The Modern American Novel  
Credits 3

The American novel from Twain through 1945.

**Notes** This course is crosslisted with ENG 473B.  
Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 673C - The Contemporary American Novel  
The American novel since 1945.

**Notes** This course is crosslisted with ENG 473C.  
Credit at the 600-level requires additional work.

ENG 677A - Film and Literature  
Credits 3

Comparative study of the relations of prose, poetry, and drama to the structure and themes of the cinema, from Dickens to the present.

ENG 677C - Genres in Film  
Credits 3

Individual examinations of genre structures and themes, with emphasis on the development and the history of genres.

**Notes** This course is crosslisted with ENG 477C.  
Credit at the 600-level requires additional work.

ENG 678C - Special Topics in Folklore  
Credits 3

This undergraduate course, when taught by a member of the graduate faculty, may be used toward graduate degrees with the permission of advisor (maximum: six credits). A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

ENG 684A - The Bible as Literature  
Credits 3

Study of selected books of the Old and New Testaments as literature in their broader cultural contexts.

**Notes** This course is crosslisted with ENG 484A.  
Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 685A - Asian Literature  
Credits 3

Study of modern and contemporary Asian literature, including comparison and contrast with Western literature and culture. Content varies by semester.

**Notes** This course is crosslisted with ENG 485A.  
Credit at the 600 level requires additional work.

ENG 686A - Postcolonial Theory

Credits 3

Examines the significance of the Other in ex-colony. Reflects of colonialism, independence, subordination, hybridity, resistance, and ideology. Frantz Fanon, C.L.R. James, Edward Said, Homi Bhabha, Gayatri Spicak, Malcolm X, Stephen Greenblatt, among others, will be considered.

**Notes** This course is crosslisted with ENG 468A. Credit at the 600-level requires additional work.

**Prerequisites** Any of the following: ENG 101 and ENG 102.

ENG 686B - Postcolonial Literature

Credits 3

Probes literature from the ex-colony: Africa, the Caribbean, Ireland, India, America, Canada, Australia. V.S. Naipaul, Derek Walcott, Wole Soyinka, Saman Rushdie, Jamaica Kincaid, Toni Morrison, Claude McKay, Maya Angelou, David Dabydeen, Chinua Achebe, among others, will be considered.

**Notes** This course is crosslisted with ENG 486B. Credit at the 600-level require additional work.

**Prerequisites** ENG 101 and ENG 102

ENG 691B - Environmental Literature

Credits 3

Study of environmental literature, both fiction and non-fiction.

**Notes** This course is crosslisted with ENG 491B. Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 694A - Native American Literature

Literature of Native-American peoples, oral traditions through contemporary works.

**Notes** This course is crosslisted with ENG 494A. Credit at the 600-level requires additional work.

ENG 695A - Early African-American Literature

Study of early African-American literature, with emphasis upon the historical development of the African-American tradition in creative and critical writing.

**Notes** This course is crosslisted with ENG 495A. Credit at the 600-level requires additional work.

ENG 695B - Modern African-American Literature

Credits 3

Study of recent and contemporary works of African-American literature.

**Same as** AAS 492

**Notes** This course is crosslisted with ENG 495B. Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

ENG 696B - Early Latino/a Literature

Credits 3

Examines prose and poetry by Latino and Latina writers from the colonial era through the end of the nineteenth century in the United States.

**Notes** This course is crosslisted with ENG 496B. Credit at the 600-level requires additional work.

ENG 696C - Contemporary Latino/a Literature

Credits 3

Examines prose and poetry by Latino and Latina writers since 1900 in the United States.

**Notes** This course is crosslisted with ENG 496C. Credit at the 600-level requires additional work.

ENG 700 - Bibliography and Methods

Credits 3

Bibliography, reference tools, introduction to scholarly methods, modern research techniques in language and literature, preparation and presentation of documented investigation.

**Notes** To be taken in the student's first year of graduate study.

ENG 701 - Contemporary Composition Theory

Credits 3

Theories that underline contemporary composition as a discipline and a profession, including the practical implications of literacy as it relates to college writing instruction, administration, and practice.

**Prerequisites** Graduate standing.

ENG 702 - History of Rhetoric and Composition

Credits 3

Survey of ancient, medieval, Renaissance, enlightenment, and twentieth-century texts that establish terminologies and raise issues still vital to the theory and practice of composition and language study today.

**Prerequisites** Graduate standing.

ENG 703 - Survey of Literary Criticism and Theory

Credits 3

Surveys criticism and theory from Plato to contemporary trends. Provides historical perspective on the toolbox of theoretical approaches to literature vital in literary studies today. Emphasis may vary from year to year.

**Notes** Required for Ph.D. Students.

**Prerequisites** Graduate standing.

ENG 704 - Theory and Practice of Textual Editing  
Credits 3

Examination of theories of scholarly editing. Topics include: variant and critical editions, textual recension, rationale for copy text, emendation, annotation, and copy editing. Students work on editions in progress, as well as journals sponsored by the department.

ENG 705 - Creative Writing  
Credits 3

Advanced study and practice of creative methods.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Admission to the M.F.A. program or consent of instructor.

ENG 706 - Gender and Interpretation  
Credits 3

Study of gender as a category of analysis within the discipline of English studies.

ENG 711 - Studies in Language  
Credits 3

Introduction to advanced study of language based on sequence of problems involving such procedures as the history of language, etymology, structural linguistics, and linguistic geography.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor.

ENG 712 - Studies in Modern Grammar  
Credits 3

Examination of important current approaches to grammatical descriptions, especially of English.

**Notes** May be repeated to a maximum of six credits.

ENG 714 - Studies in Rhetoric and Composition  
Credits 3

Intensive study of selected topics in composition and rhetorical theory. Topics and reading lists will vary

from semester to semester.

**Notes** May be repeated to a maximum of six credits.

ENG 715 - Theory of Translation  
Credits 3

Readings in the theory of translation, as well as textual analysis of existing translations to and from several different languages.

**Notes** Taught in English.

**Prerequisites** Advanced knowledge of one foreign language, consent of instructor.

ENG 716 - Workshop in Translation  
Credits 3

Explores problems inherent in the translation of foreign texts; completion of individual and group projects, with assistance of instructor.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Advanced knowledge of one foreign language, consent of instructor.

ENG 719 - Area Linguistics  
Credits 3

Historical overview of area linguistics, with emphasis on principles of dialectology in the English speaking world and the principles of linguistic atlases in the United States and Canada.

ENG 720 - Studies in Medieval Literature  
Credits 3

Intense study of selected topics in medieval literature.

**Notes** May be repeated to a maximum of six credits.

ENG 722 - Studies in Chaucer  
Credits 3

Study of major works of Geoffrey Chaucer in relation to their medieval literary and cultural context.

**Prerequisites** Graduate standing or consent of instructor.

ENG 723 - Studies in the Renaissance  
Credits 3

Intensive study of selected topics in sixteenth-century literature.

**Notes** May be repeated to a maximum of six credits.

ENG 724 - Studies in Early Seventeenth-Century Literature  
Credits 3

Intensive study of selected literary topics in early

seventeenth-century literature.

**Notes** May be repeated to a maximum of six credits.

ENG 725 - Studies in Shakespeare

Credits 3

Intensive study of selected works of Shakespeare, with emphasis on genre, theme, or chronological grouping.

**Notes** May be repeated to a maximum of nine credits.

ENG 728 - Studies in Milton

Credits 3

Study of the major works of John Milton in relation to their Renaissance literary and cultural context.

**Prerequisites** Graduate standing or consent of instructor.

ENG 729 - Forms of Fiction or Poetry

Credits 3

Close reading and literary analysis. Topics and reading lists vary from semester to semester.

**Notes** May be repeated to a maximum of nine credits.

ENG 731 - Studies in Restoration and Eighteenth-Century British Literature

Credits 3

Intensive study of selected literary topics in Restoration and eighteenth-century British literature.

**Notes** May be repeated to a maximum of six credits.

ENG 734 - Studies in English Romanticism

Credits 3

Intensive study of selected literary topics in the English romantic period.

ENG 735 - Studies in Victorian Literature

Credits 3

Intensive examination of selected topics in Victorian literature.

**Notes** May be repeated to a maximum of six credits.

ENG 738 - Studies in Modern British Literature

Credits 3

Modern literature studies with emphasis upon movements which center in Great Britain.

**Notes** May be repeated to a maximum of six credits.

ENG 739 - M.F.A. Translation

Credits 3

Students translate a short story, group of poems, or other work by a foreign writer.

**Notes** Open only to students in the M.F.A. Program who have passed the qualifying oral examination. FOL 717 may substitute for ENG 739.

**Prerequisites** Successful completion of the oral qualifying exam.

ENG 742 - Studies in Early American Literature

Credits 3

Intensive study of selected subjects in colonial or romantic American literature, such as the work of a few important literary figures, a group of related writers, or a literary movement.

**Notes** May be repeated to a maximum of six credits.

ENG 743 - Studies in Later American Literature

Credits 3

Intensive study of selected topics in late nineteenth- and early twentieth-century literature.

**Notes** May be repeated to a maximum of six credits.

ENG 744 - Studies in Modern American Literature

Credits 3

Intensive study of selected topics in contemporary literature.

**Notes** May be repeated to a maximum of six credits.

ENG 749 - M.F.A. Critical Essay

Credits 3

M.F.A. students' individual investigation of an American or foreign novelist or poet using various critical methodologies.

**Prerequisites** Acceptance to the M.F.A. Program.

ENG 760 - Studies in Literary Genres

Credits 3

Intensive study of a literary genre, with particular attention to its history and development.

**Notes** May be repeated to a maximum of nine credits.

ENG 775 - Studies in Literary Criticism

Credits 3

Intensive study of selected major critical theories or a selected problem in the philosophy of criticism.

**Notes** May be repeated to a maximum of six credits.

ENG 787 - Studies in Modern Comparative Literature

Credits 3

Modern literature studies with the emphasis upon

international movements.

**Notes** May be repeated to a maximum of six credits.

ENG 790 - M.F.A. Thesis

Credits 3 – 12

Open only to students in the M.F.A. program who have passed the qualifying oral examination. Students write a book-length manuscript of fiction or poetry.

**Notes** May be repeated but only a maximum of 12 credits may be applied to the student's degree program.

**Grading** S/F grading only.

**Prerequisites** Successful completion of the oral qualifying exam.

ENG 791 - College Teaching in Language and Literature

Credits 3

Theory and practice in the teaching of English in college, particularly the first-year course.

**Notes** Required of all graduate assistants.

ENG 792 - Directed Studies in Language

Credits 3

Individual investigation of a language problem in Old, Middle, or Modern English including contributions of other languages using the various methodologies of descriptive linguistics.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Consent of instructor.

ENG 794 - Independent Study - International Focus

Credits 3 – 6

Studies foreign cultures and languages in a non-English speaking setting. M.F.A. requirement which may be taken in lieu of registration in a foreign university.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Acceptance to the M.F.A. Program.

ENG 795 - Seminar

Credits 3

Topics vary from semester to semester.

**Notes** May be repeated to a maximum of nine credits.

ENG 796 - Independent Study

Credits 1 – 3

Open to students only upon approval of a written prospectus of the work to be done.

**Notes** Normally limited to three credits on the M.A. program of study.

ENG 797 - Thesis

Credits 3 – 6

**Notes** May be repeated but only six credits will be applied toward the student's program.

**Grading** S/F grading only.

ENG 798 - Doctoral Research

Credits 1 – 3

Independent study for graduate students in the Ph.D. program upon approval by the dissertation advisor of a written prospectus of the work to be done.

**Notes** Normally limited to six credits on the doctoral program of study.

**Prerequisites** Admission to Ph.D. program and consent of graduate director.

ENG 799 - Dissertation

Credits 3 – 9

Open only to Ph.D. students who have passed the qualifying examination.

**Notes** May be repeated but only a maximum of 18 credits may be applied towards degree.

**Prerequisites** Consent of graduate director.

## History

The graduate programs in History are designed to achieve a balance between scholarship and teaching. Advanced study in the areas of North America, Europe, Latin America, Asia, and in Public History has prepared many of our graduates for teaching positions in area schools and community colleges. Our course offerings, which train students in research, writing, editing, and critical analysis, have qualified many of our graduates for admission to doctoral programs, law schools, and jobs in historic preservation, the National Park Service, historical societies, museums, and international business firms.

*David Tanenhaus, Ph.D., Chair*  
*Elizabeth White Nelson, Ph.D., Graduate Coordinator*

## History Faculty

### Chair

**Tanenhaus, David** - *Full Graduate Faculty*  
Professor; B.A., Grinnell College; M.A., Ph.D., University of Chicago. *Rebel since 1997.*

### Graduate Coordinator

**Nelson, Elizabeth White** - *Full Graduate Faculty*  
Associate Professor; A.B., Bryn Mawr College; M.A., Ph.D., Yale University. *Rebel since 1996.*

### Graduate Faculty

**Bauer, William** - *Full Graduate Faculty*  
Associate Professor; B.A., University of Notre Dame; M.A., Ph.D., University of Oklahoma. *Rebel since 2009.*

**Bell, Andrew J. E.** - *Full Graduate Faculty*  
Associate Professor; B.A., Oxford University; Ph.D., Stanford University. *Rebel since 1994.*

**Brown, Gregory** - *Full Graduate Faculty*  
Professor; B.A., University of Pennsylvania; M.A., Ph.D., Columbia University. *Rebel since 1998.*

**Casas, Maria Raquel** - *Full Graduate Faculty*  
Associate Professor; B.A., California State University at Fresno; M.A., Ph.D., Yale University. *Rebel since 1997.*

**Clemente, Deirdre** --*Full Graduate Faculty*  
Assistant Professor; B.A., Johns Hopkins University; M.A. Fashion Institute of Technology, State University of New York; Ph.D., Carnegie Mellon University. *Rebel since 2011.*

**Coughtry, Jay A.** - *Full Graduate Faculty*  
Associate Professor; B.A., State University of New York, Geneseo; M.A., Ph.D., University of Wisconsin. *Rebel since 1982.*

**Curry John,** - *Full Graduate Faculty*  
Associate Professor; B.A. Northwestern University; M.A., Ph.D., Ohio State University. *Rebel since 2006.*

**Dawson, Kevin** - *Full Graduate Faculty*  
Assistant Professor; B.A. California State University, Fullerton; M.A. California State University, Fullerton; Ph.D. University of South Carolina. *Rebel since 2007.*

**Fry, Joseph A.** - *Full Graduate Faculty*  
Distinguished Professor; B.A., Davis and Elkins College; M.A., Ph.D., University of Virginia. *Rebel since 1975.*

**Gallo, Marcia M.** - *Full Graduate Faculty*  
Assistant Professor; B.A. Holy Names University; Ph.D., City University of New York Graduate School. *Rebel since 2009.*

**Goodwin, Joanne** - *Full Graduate Faculty*  
Associate Professor; B.F.A., University of Washington; M.A., Sarah Lawrence College; Ph.D., University of Michigan. *Rebel since 1991.*

**Hise, Greg** - *Full Graduate Faculty*  
Professor; B.A. University of California, Berkeley; Ph.D., University of California, Berkeley. *Rebel since 2008.*

**Kirk, Andrew Glenn** - *Full Graduate Faculty*  
Professor; B.A., M.A., University of Colorado-Denver; Ph.D., University of New Mexico. *Rebel since 1999.*

**Loader, Colin T.** - *Full Graduate Faculty*  
Professor; A.B., Bates College; M.A., University of Rhode Island; Ph.D., University of California, Los Angeles. *Rebel since 1986.*

**Melton-Villanueva, Miriam** - *Full Graduate Faculty*  
Assistant Professor; B.A., M.A., C. Phil., Ph.D., University of California, Los Angeles. *Rebel since 2012.*

**Moehring, Eugene P.** - *Full Graduate Faculty*  
Professor; B.A., M.A., Queens College; Ph.D., City University of New York. *Rebel since 1976.*

**Nelson, Elizabeth White** - *Full Graduate Faculty*  
Associate Professor; A.B., Bryn Mawr College; M.A., Ph.D., Yale University. *Rebel since 1996.*

**Robinson, Todd** - *Full Graduate Faculty*  
Assistant Professor; B.A., American University; M.M., Cambridge College; M.A., University of Massachusetts; Ph.D., University of Michigan. *Rebel since 2007.*

**Tanenhaus, David** - *Full Graduate Faculty*  
Professor; B.A., Grinnell College; M.A., Ph.D., University of Chicago. *Rebel since 1997.*

**Tusan, Michelle** - *Full Graduate Faculty*  
Associate Professor; B.A., University of California, Davis; M.A., Ph.D., University of California, Berkeley. *Rebel since 2001.*

**Werth, Paul** - *Full Graduate Faculty*  
Professor; B.A., Knox College; Ph.D., University of Michigan. *Rebel since 1997.*

**Whitney, Elspeth** - *Full Graduate Faculty*  
Associate Professor B.A., San Francisco State University; Ph.D., City University of New York. *Rebel since 1990.*

#### Professors Emeriti

**Burns, Paul E.**  
Emeritus Professor; B.A., Miami University (Ohio); M.A., Certificate in Russian Studies, Ph.D., Indiana University. *UNLV Emeritus 1963-1995.*

**Davenport, Robert W.**  
Emeritus Associate Professor; B.A., Pomona College; M.A., University of California, Berkeley; M.S., Ph.D., University of California. Los Angeles. *UNLV Emeritus 1964-1998.*

**Mattson, Vernon E.**  
Emeritus Associate Professor; B.A., Tennessee Temple College; M.A., North Texas State University; Ph.D., University of Kansas. *UNLV Emeritus 1969.*

**Wright, Thomas C.**  
Emeritus Distinguished Professor; B.A., Pomona College; M.A., Ph.D., University of California, Berkeley. *UNLV Emeritus 1972.*



## Doctor of Philosophy - History

### Plan Description

The degree of Doctor of Philosophy is the ultimate expression of the History Department's mission to generate and disseminate new knowledge of the past through research, reflection and publication. The doctoral program in history at UNLV has two tracks: United States History and European History. The degree aims at providing graduates with the capacity for original research and thought as demonstrated by the completion of a doctoral dissertation of substantial scope combining imagination and excellence.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

Learning outcomes for specific subplan tracks can be found below:

- Doctor of Philosophy - History;  
Concentration in European Culture and Society
- Doctor of Philosophy - History;  
Concentration in North American Culture and Society
- Doctor of Philosophy - History;  
Concentration in North American West

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.
2. Applicants must have completed significant course work at the upper division or graduate level in History.
3. Competitive scores on verbal, quantitative and analytical measures of the Graduate Record Examination.
4. Recommendations from three former instructors addressing the applicant's

preparedness for doctoral level work in United States History or European History.

5. A statement of purpose in which the applicant describes specific interests in and approaches to either United States History or European History. The statement should also include a description of the applicant's background and training for advanced work in this field as well as academic and professional goals.
6. A writing sample in the form of a master's thesis or original research paper of substantial length and quality. If possible, the writing sample should engage either United States History or European History.

#### *Post-Bachelor's Tracks*

1. B.A. or equivalent from an accredited institution with a minimum GPA of 3.75.
2. Students must have written an Honors Thesis in History or a closely related field, which must be uploaded as part of the application.

#### *Post-Master's Tracks*

1. M.A. or equivalent from an accredited institution with a minimum GPA of 3.50.
2. Students who have not completed HIST 710 and HIST 740 as part of their master's degree will be required to complete them as a condition of their admission. Note: These courses will not count toward the 35 credits required for the Doctor of Philosophy – History.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Post-Bachelor's - North American West Track**

Total Credits Required: 69

## Course Requirements

### Required Courses – Credits: 8

HIST 710 - The Professional Historian  
HIST 726 - Colloquium in American Western History  
HIST 727 - Research Seminar in American Western History

### Historiography Courses – Credits: 9

Complete three of the following courses:

HIST 740A - Historiography (United States - Domestic)  
HIST 740E - Historiography (United States - Diplomatic)  
HIST 740F - Historiography (American West)  
HIST 740G - Historiography (United States - Cultural/Intellectual)

### Colloquium Course – Credits: 3

Complete one of the following courses (excluding any courses taken as Non-U.S. Colloquium):

HIST 724 - Colloquium in American Cultural/Intellectual History  
HIST 726 - Colloquium in American Western History  
HIST 730 - Colloquium in American History  
HIST 736 - Colloquium in Modern Latin American History

### Seminar Course – Credits: 4

Complete one of the following courses:

HIST 725 - Seminar in American Cultural/Intellectual History  
HIST 731 - Research Seminar in American History

### Minor Field Courses – Credits: 12

In consultation with your advisor select a minor field of study and complete 3 credits of colloquium and 9 credits of electives to total 12 credits.

#### *Asian History*

Minor Colloquium Course

HIST 734 - Colloquium in Modern Asian History

#### Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 649A - History of Japan to 1800  
HIST 649B - History of Japan since 1800  
HIST 649C - Topics in Japanese History  
HIST 655A - History of China to 1800  
HIST 655B - History of China since 1800  
HIST 655C - Topics in Modern China  
HIST 689 - Comparative History  
HIST 698 - Advanced Historical Studies  
HIST 735 - Research Seminar in Modern Asian History  
HIST 740C - Historiography (Modern Asia)  
HIST 761 - Doctoral Independent Study

#### *European History*

Minor Colloquium Course

Complete one of the following courses:

HIST 728 - Colloquium in European Cultural/Intellectual History  
HIST 732 - Colloquium in European History

#### Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750  
HIST 619B - Britain from 1750  
HIST 620 - Topics in Central Europe: 1914 - Present  
HIST 621 - History of Russia to 1825  
HIST 622 - History of Russia Since 1825  
HIST 623A - History of Germany to 1848  
HIST 623B - History of Germany Since 1848  
HIST 634A - European Urban History  
HIST 635A - Early Modern Intellectual History  
HIST 635B - Modern Intellectual History  
HIST 635C - Topics in European Cultural and Intellectual History  
HIST 645 - Cultural History of Modern Russia  
HIST 646 - History of the Russian Film  
HIST 647 - Revolutionary Russia 1905-1921  
HIST 656 - Topics in Ancient History  
HIST 657 - Ancient Greek Civilization  
HIST 658 - Roman Civilization

HIST 659 - Medieval Civilization  
 HIST 659A - Topics in Medieval History  
 HIST 660A - The Renaissance  
 HIST 660B - The Reformation  
 HIST 661 - Europe in the 18th Century  
 HIST 661B - Early Modern Europe: 1550-1789  
 HIST 662 - The French Revolution and Napoleon  
 HIST 663 - Europe: 1815-1914  
 HIST 664 - Europe: 1914 to the Present  
 HIST 666 - European Diplomatic History, 1815-Present  
 HIST 668 - History of Science  
 HIST 679 - History of the British Empire  
 HIST 679A - West Africa and the Making of the Atlantic World  
 HIST 682 - Music History I  
 HIST 683 - Music History II  
 HIST 689 - Comparative History  
 HIST 691A - Women in the Ancient World  
 HIST 691B - Women in Medieval Culture and Society  
 HIST 692B - Woman's Role in European History: 1750-1970  
 HIST 692A - Women In Early Modern Europe  
 HIST 695 - Special Topics in Gender and History  
 HIST 696 - Philosophy of History  
 HIST 728 - Colloquium in European Cultural/Intellectual History  
 HIST 729 - Research Seminar in European Cultural/Intellectual History  
 HIST 732 - Colloquium in European History  
 HIST 733 - Research Seminar in European History  
 HIST 760 - Advanced Studies in History  
 HIST 740H - Historiography (European Cultural/Intellectual)  
 HIST 761 - Doctoral Independent Study

*Latin American History*

Minor Colloquium Course

HIST 736 - Colloquium in Modern Latin American History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 670 - History of Mexico  
 HIST 671 - Revolution and Reaction in

Contemporary Latin America  
 HIST 672 - History of Brazil  
 HIST 673 - History of the Andean Region  
 HIST 674 - Latin American Ethnic Studies  
 HIST 675 - Modern Latin American Film  
 HIST 676 - The Mexican Revolution  
 HIST 679A - West Africa and the Making of the Atlantic World  
 HIST 689 - Comparative History  
 HIST 695 - Special Topics in Gender and History  
 HIST 737 - Research Seminar in Modern Latin American History  
 HIST 740D - Historiography (Modern Latin America)  
 HIST 761 - Doctoral Independent Study

*Public History*

Minor Colloquium Course

HIST 749 - Colloquium in Public History

Required Elective Courses

HIST 750 - Methods for the Study of Public History  
 HIST 795 - Internship in Public History

Minor Elective Course

Complete one of the following courses:

HIST 751 - Museums and American Culture  
 HIST 752 - Modern Archives: Theory and Methodology  
 HIST 754 - Topics in Public History  
 HIST 761 - Doctoral Independent Study

*World History*

Minor Colloquium Course

HIST 738 - Colloquium in African and Middle Eastern History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750  
 HIST 619B - Britain from 1750  
 HIST 620 - Topics in Central Europe: 1914 - Present  
 HIST 621 - History of Russia to 1825

HIST 622 - History of Russia Since 1825  
 HIST 623A - History of Germany to 1848  
 HIST 623B - History of Germany Since 1848  
 HIST 634A - European Urban History  
 HIST 635A - Early Modern Intellectual History  
 HIST 635B - Modern Intellectual History  
 HIST 635C - Topics in European Cultural and Intellectual History  
 HIST 645 - Cultural History of Modern Russia  
 HIST 646 - History of the Russian Film  
 HIST 647 - Revolutionary Russia 1905-1921  
 HIST 649A - History of Japan to 1800  
 HIST 649B - History of Japan since 1800  
 HIST 649C - Topics in Japanese History  
 HIST 655A - History of China to 1800  
 HIST 655B - History of China since 1800  
 HIST 655C - Topics in Modern China  
 HIST 656 - Topics in Ancient History  
 HIST 657 - Ancient Greek Civilization  
 HIST 658 - Roman Civilization  
 HIST 659 - Medieval Civilization  
 HIST 659A - Topics in Medieval History  
 HIST 660A - The Renaissance  
 HIST 660B - The Reformation  
 HIST 661 - Europe in the 18th Century  
 HIST 661B - Early Modern Europe: 1550-1789  
 HIST 662 - The French Revolution and Napoleon  
 HIST 663 - Europe: 1815-1914  
 HIST 664 - Europe: 1914 to the Present  
 HIST 666 - European Diplomatic History, 1815-Present  
 HIST 668 - History of Science  
 HIST 670 - History of Mexico  
 HIST 671 - Revolution and Reaction in Contemporary Latin America  
 HIST 672 - History of Brazil  
 HIST 673 - History of the Andean Region  
 HIST 674 - Latin American Ethnic Studies  
 HIST 675 - Modern Latin American Film  
 HIST 676 - The Mexican Revolution  
 HIST 678A - Islamic and Middle Eastern History to 1750  
 HIST 678B - Islamic and Middle Eastern History since 1750  
 HIST 679 - History of the British Empire  
 HIST 679A - West Africa and the Making of the Atlantic World  
 HIST 682 - Music History I  
 HIST 683 - Music History II

HIST 689 - Comparative History  
 HIST 691A - Women in the Ancient World  
 HIST 691B - Women in Medieval Culture and Society  
 HIST 692B - Woman's Role in European History: 1750-1970  
 HIST 692A - Women In Early Modern Europe  
 HIST 695 - Special Topics in Gender and History  
 HIST 696 - Philosophy of History  
 HIST 728 - Colloquium in European Cultural/Intellectual History  
 HIST 729 - Research Seminar in European Cultural/Intellectual History  
 HIST 734 - Colloquium in Modern Asian History  
 HIST 735 - Research Seminar in Modern Asian History  
 HIST 736 - Colloquium in Modern Latin American History  
 HIST 737 - Research Seminar in Modern Latin American History  
 HIST 739 - Research Seminar in African and Middle Eastern History  
 HIST 740B - Historiography (Europe)  
 HIST 740C - Historiography (Modern Asia)  
 HIST 740H - Historiography (European Cultural/Intellectual)  
 HIST 748 - History and Policy  
 HIST 761 - Doctoral Independent Study

### **Elective Courses – Credits: 3**

Complete 3 credits of History elective coursework, or other advisor-approved courses.

**After successfully completing the requirements above, students are eligible to earn the Master of Arts – History.**

### **Additional Elective Courses – Credits: 18**

Complete 18 credits of History elective coursework, or other advisor-approved courses.

### **Dissertation – Credits: 12**

HIST 791 - Dissertation

Degree Requirements

1. Students are expected to take courses with as many members of the faculty who

- specialize in the history of the North American West as possible. Students are encouraged to take more than the minimum number of courses.
2. A minimum of 45 credit hours of course work must be at the 700-level (excluding Dissertation).
  3. Foreign Language Requirement. This requirement can be met in any of the following three ways, though the chosen option must be approved by the chair of the student's examination committee:
    1. Demonstrated reading knowledge of two foreign languages.
    2. Demonstrated reading knowledge of one foreign language and advanced reading knowledge of the same language, assessed through the writing of a substantial historiographical essay in English based on scholarly literature in that foreign language.
    3. With the approval of the student's committee and the Graduate Coordinator, a student may demonstrate reading knowledge of one foreign language and the successful completion of SOC 604 - Statistical Methods in the Social Sciences.
  4. The completion of the second seminar paper will constitute the master's culminating experience; it will be evaluated by a committee consisting of the instructor of record, the student's primary advisor and the graduate coordinator.
  5. Please note that the MA degree will not be conferred automatically. Students must take the initiative to seek committee approval and apply for conferral through the Graduate College.
  6. Doctoral students may also apply to transfer into the MA program at any point, but this will require a new application.
  7. Students may take up to six credits of Comprehensive Exam Preparation, but these credits will not count towards the total credits required for the degree.
  8. Written and Oral Qualifying Examinations. Students write a total of six out of twelve essay questions. Students prepare extensive reading lists of books and articles for each field of study in conjunction with the members of their advisory committee. The lists are based on scholarly works read in coursework, but substantial additional reading is required. Coursework alone does not constitute preparation for comprehensive exams. For purposes of examination, and through close consultation with the student's committee chair and members of the committee, coursework and supplemental reading will be divided into four examination areas, each of which is comprised of four questions from which the students write on two.
    1. Major Field (General United States History): the written examination focuses on the first or second half of U.S. History (1600 to 1877, or 1850 to Present), but students are required to answer questions on the full sweep of U.S. History in the oral examination. A student writes on two of four questions.
    2. Major Field (Topical): Requires students to master the literature in North American West. A student writes on two of four questions.
    3. Theory and Methods: A student chooses Applied Theory, Comparative History, or Public History. A student writes on one of two questions.
    4. Minor Field: A student chooses one of the following fields: Asian History, European History, Latin American History, Public History, or World History. A student may only be examined in Public History in one field. A student writes on one of two questions.
  9. Students must pass the written portion of the qualifying exam before they are allowed to take the oral qualifying exam.
  10. Students may take up to three credits of Dissertation Prospectus course, but these

credits will not count towards the total credits required for the degree.

11. The prospectus colloquium must be held within three months of the successful completion of the comprehensive examinations. Students must formally present a prospectus for their proposed dissertation research to their advisory committee before taking dissertation credits. The prospectus must be accepted for the student to have ABD status in the History Department.
12. A dissertation of substantial length and quality containing original research and interpretation on a topic in the field of Northern American West.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's (if applicable) and Doctoral portions of the program.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 2 Requirements: Post-Bachelor's - North American Culture and Society Track**

Total Credits Required: 69

#### Course Requirements

##### **Required Courses – Credits: 8**

HIST 710 - The Professional Historian  
HIST 726 - Colloquium in American Western History  
HIST 725 - Seminar in American Cultural/Intellectual History

##### **Historiography Courses – Credits: 9**

Complete three of the following courses:

HIST 740A - Historiography (United States - Domestic)  
HIST 740E - Historiography (United States - Diplomatic)  
HIST 740G - Historiography (United States - Cultural/Intellectual)  
HIST 740H - Historiography (European Cultural/Intellectual)

##### **Colloquium Course – Credits: 3**

Complete one of the following courses (excluding any courses taken as Non-European Colloquium):

HIST 724 - Colloquium in American Cultural/Intellectual History  
HIST 726 - Colloquium in American Western History  
HIST 730 - Colloquium in American History  
HIST 736 - Colloquium in Modern Latin American History

##### **Seminar Course – Credits: 4**

Complete one of the following courses:

HIST 727 - Research Seminar in American Western History  
HIST 731 - Research Seminar in American History

##### **Minor Field Courses – Credits: 12**

In consultation with your advisor select a minor field of study and complete 3 credits of colloquium and 9 credits of electives to total 12 credits.

##### *Asian History*

Minor Colloquium Course

HIST 734 - Colloquium in Modern Asian History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 649A - History of Japan to 1800  
HIST 649B - History of Japan since 1800  
HIST 649C - Topics in Japanese History  
HIST 655A - History of China to 1800

HIST 655B - History of China since 1800  
HIST 655C - Topics in Modern China  
HIST 689 - Comparative History  
HIST 698 - Advanced Historical Studies  
HIST 735 - Research Seminar in Modern Asian History

*European History*

Minor Colloquium Course

Complete one of the following courses:

HIST 728 - Colloquium in European Cultural/Intellectual History

HIST 732 - Colloquium in European History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750

HIST 619B - Britain from 1750

HIST 620 - Topics in Central Europe: 1914 - Present

HIST 621 - History of Russia to 1825

HIST 622 - History of Russia Since 1825

HIST 623A - History of Germany to 1848

HIST 623B - History of Germany Since 1848

HIST 634A - European Urban History

HIST 635A - Early Modern Intellectual History

HIST 635B - Modern Intellectual History

HIST 635C - Topics in European Cultural and Intellectual History

HIST 645 - Cultural History of Modern Russia

HIST 646 - History of the Russian Film

HIST 647 - Revolutionary Russia 1905-1921

HIST 656 - Topics in Ancient History

HIST 657 - Ancient Greek Civilization

HIST 658 - Roman Civilization

HIST 659 - Medieval Civilization

HIST 659A - Topics in Medieval History

HIST 660A - The Renaissance

HIST 660B - The Reformation

HIST 661 - Europe in the 18th Century

HIST 661B - Early Modern Europe: 1550-1789

HIST 662 - The French Revolution and Napoleon

HIST 663 - Europe: 1815-1914

HIST 664 - Europe: 1914 to the Present

HIST 666 - European Diplomatic History, 1815-Present

HIST 668 - History of Science

HIST 679 - History of the British Empire

HIST 679A - West Africa and the Making of the Atlantic World

HIST 682 - Music History I

HIST 683 - Music History II

HIST 689 - Comparative History

HIST 691A - Women in the Ancient World

HIST 691B - Women in Medieval Culture and Society

HIST 692 - Woman's Role in European History: 1750-1970

HIST 692A - Women In Early Modern Europe

HIST 695 - Special Topics in Gender and History

HIST 696 - Philosophy of History

HIST 728 - Colloquium in European Cultural/Intellectual History

HIST 729 - Research Seminar in European Cultural/Intellectual History

HIST 732 - Colloquium in European History

HIST 733 - Research Seminar in European History

HIST 760 - Advanced Studies in History

HIST 740H - Historiography (European Cultural/Intellectual)

HIST 761 - Doctoral Independent Study

HIST 761 - Doctoral Independent Study

HIST 761 - Doctoral Independent Study

HIST 761 - Doctoral Independent Study

HIST 761 - Doctoral Independent Study

*Latin American History*

Minor Colloquium Course

HIST 736 - Colloquium in Modern Latin American History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 670 - History of Mexico

HIST 671 - Revolution and Reaction in Contemporary Latin America

HIST 672 - History of Brazil

HIST 673 - History of the Andean Region

HIST 674 - Latin American Ethnic Studies

HIST 675 - Modern Latin American Film

HIST 676 - The Mexican Revolution

HIST 679A - West Africa and the Making of the Atlantic World

HIST 689 - Comparative History

HIST 689 - Comparative History

HIST 689 - Comparative History

HIST 695 - Special Topics in Gender and History

HIST 737 - Research Seminar in Modern Latin American History

HIST 737 - Research Seminar in Modern Latin American History

HIST 740D - Historiography (Modern Latin America)

HIST 761 - Doctoral Independent Study

*Public History*

Minor Colloquium Course

HIST 749 - Colloquium in Public History

Required Elective Courses

HIST 750 - Methods for the Study of Public History

HIST 795 - Internship in Public History

Minor Elective Course

Complete one of the following courses:

HIST 751 - Museums and American Culture

HIST 752 - Modern Archives: Theory and Methodology

HIST 754 - Topics in Public History

HIST 761 - Doctoral Independent Study

*World History*

Minor Colloquium Course

HIST 738 - Colloquium in African and Middle Eastern History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750

HIST 619B - Britain from 1750

HIST 620 - Topics in Central Europe: 1914 - Present

HIST 621 - History of Russia to 1825

HIST 622 - History of Russia Since 1825

HIST 623A - History of Germany to 1848

HIST 623B - History of Germany Since 1848

HIST 634A - European Urban History

HIST 635A - Early Modern Intellectual History

HIST 635B - Modern Intellectual History

HIST 635C - Topics in European Cultural and Intellectual History

HIST 645 - Cultural History of Modern Russia

HIST 646 - History of the Russian Film

HIST 647 - Revolutionary Russia 1905-1921

HIST 649A - History of Japan to 1800

HIST 649B - History of Japan since 1800

HIST 649C - Topics in Japanese History

HIST 655A - History of China to 1800

HIST 655B - History of China since 1800

HIST 655C - Topics in Modern China

HIST 656 - Topics in Ancient History

HIST 657 - Ancient Greek Civilization

HIST 658 - Roman Civilization

HIST 659 - Medieval Civilization

HIST 659A - Topics in Medieval History

HIST 660A - The Renaissance

HIST 660B - The Reformation

HIST 661 - Europe in the 18th Century

HIST 661B - Early Modern Europe: 1550-1789

HIST 662 - The French Revolution and Napoleon

HIST 663 - Europe: 1815-1914

HIST 664 - Europe: 1914 to the Present

HIST 666 - European Diplomatic History, 1815-Present

HIST 668 - History of Science

HIST 670 - History of Mexico

HIST 671 - Revolution and Reaction in Contemporary Latin America

HIST 672 - History of Brazil

HIST 673 - History of the Andean Region

HIST 674 - Latin American Ethnic Studies

HIST 675 - Modern Latin American Film

HIST 676 - The Mexican Revolution

HIST 678A - Islamic and Middle Eastern History to 1750

HIST 678B - Islamic and Middle Eastern History since 1750

HIST 679 - History of the British Empire

HIST 679A - West Africa and the Making of the Atlantic World

HIST 682 - Music History I

HIST 683 - Music History II

HIST 689 - Comparative History

HIST 691A - Women in the Ancient World

HIST 691B - Women in Medieval Culture and Society

HIST 692 - Woman's Role in European History: 1750-1970

HIST 692A - Women In Early Modern Europe

HIST 695 - Special Topics in Gender and History

HIST 696 - Philosophy of History

HIST 728 - Colloquium in European Cultural/Intellectual History

HIST 729 - Research Seminar in European



### Cultural/Intellectual History

HIST 734 - Colloquium in Modern Asian History

HIST 735 - Research Seminar in Modern Asian History

HIST 736 - Colloquium in Modern Latin American History

HIST 737 - Research Seminar in Modern Latin American History

HIST 739 - Research Seminar in African and Middle Eastern History

HIST 740B - Historiography (Europe)

HIST 740C - Historiography (Modern Asia)

HIST 740H - Historiography (European Cultural/Intellectual)

HIST 748 - History and Policy

HIST 761 - Doctoral Independent Study

### Elective Courses – Credits: 3

Complete 3 credits of History elective coursework, or other advisor-approved courses.

**After successfully completing the requirements above, students are eligible to earn the Master of Arts – History.**

### Additional Elective Courses – Credits: 18

Complete 18 credits of History elective coursework, or other advisor-approved courses.

### Dissertation – Credits: 12

HIST 791 - Dissertation

#### Degree Requirements

1. Students are expected to take courses with as many members of the faculty who specialize in the history of North American Culture and Society as possible. Students are encouraged to take more than the minimum number of courses.
2. A minimum of 45 credit hours of course work must be at the 700-level (excluding Dissertation).
3. Foreign Language Requirement. This requirement can be met in any of the following three ways, though the chosen option must be approved by the chair of the student's examination committee:

1. Demonstrated reading knowledge of two foreign languages.
2. Demonstrated reading knowledge of one foreign language and advanced reading knowledge of the same language, assessed through the writing of a substantial historiographical essay in English based on scholarly literature in that foreign language.
3. With the approval of the student's committee and the Graduate Coordinator, a student may demonstrate reading knowledge of one foreign language and the successful completion of SOC 604 - Statistical Methods in the Social Sciences.
4. The completion of the second seminar paper will constitute the master's culminating experience; it will be evaluated by a committee consisting of the instructor of record, the student's primary advisor and the graduate coordinator.
5. Please note that the MA degree will not be conferred automatically. Students must take the initiative to seek committee approval and apply for conferral through the Graduate College.
6. Doctoral students may also apply to transfer into the MA program at any point, but this will require a new application.
7. Students may take up to six credits of Comprehensive Exam Preparation, but these credits will not count towards the total credits required for the degree.
8. Written and Oral Qualifying Examinations. Students write a total of six out of twelve essay questions. Students prepare extensive reading lists of books and articles for each field of study in conjunction with the members of their advisory committee. The lists are based on scholarly works read in coursework, but substantial additional reading is required. Coursework alone does not constitute preparation for comprehensive exams. For purposes of examination, and through close consultation with the student's committee chair and members of the

committee, coursework and supplemental reading will be divided into four examination areas, each of which is comprised of four questions from which the students write on two.

1. Major Field (General United States History): the written examination focuses on the first or second half of U.S. History (1600 to 1877, or 1850 to Present), but students are required to answer questions on the full sweep of U.S. History in the oral examination. A student writes on two of four questions.
  2. Major Field (Topical): Requires students to master the literature in North American Culture and Society. A student writes on two of four questions.
  3. Theory and Methods: A student chooses Applied Theory, Comparative History, or Public History. A student writes on one of two questions.
  4. Minor Field: A student chooses one of the following fields: Asian History, European History, Latin American History, Public History, or World History. A student may only be examined in Public History in one field. A student writes on one of two questions.
9. Students must pass the written portion of the qualifying exam before they are allowed to take the oral qualifying exam.
10. Students may take up to three credits of Dissertation Prospectus course, but these credits will not count towards the total credits required for the degree.
11. The prospectus colloquium must be held within three months of the successful completion of the comprehensive examinations. Students must formally present a prospectus for their proposed dissertation research to their advisory committee before taking dissertation credits. The prospectus must be accepted for the student to have ABD status in the History Department.

12. A dissertation of substantial length and quality containing original research and interpretation on a topic in the field of North American Culture and Society.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's (if applicable) and Doctoral portions of the program.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 3 Requirements: Post-Bachelor's - European Culture and Society Track**

Total Credits Required: 69

#### Course Requirements

##### **Required Courses – Credits: 8**

HIST 710 - The Professional Historian  
HIST 728 - Colloquium in European Cultural/Intellectual History  
HIST 729 - Research Seminar in European Cultural/Intellectual History

##### **Historiography Courses – Credits: 9**

Complete three of the following courses:

HIST 740B - Historiography (Europe)  
HIST 740C - Historiography (Modern Asia)  
HIST 740D - Historiography  
HIST 740G - Historiography (United States - Cultural/Intellectual)  
HIST 740H - Historiography (European Cultural/Intellectual)

##### **Colloquium Course – Credits: 3**

Complete one of the following courses (excluding any courses taken as Non-European Colloquium):

HIST 728 - Colloquium in European Cultural/Intellectual History  
HIST 732 - Colloquium in European History  
HIST 734 - Colloquium in Modern Asian History  
HIST 736 - Colloquium in Modern Latin American History  
HIST 738 - Colloquium in African and Middle Eastern History

**Seminar Course – Credits: 4**

Complete one of the following courses:

HIST 733 - Research Seminar in European History  
HIST 735 - Research Seminar in Modern Asian History  
HIST 737 - Research Seminar in Modern Latin American History  
HIST 739 - Research Seminar in African and Middle Eastern History

**Minor Field Courses – Credits: 12**

In consultation with your advisor select a minor field of study and complete 3 credits of colloquium and 9 credits of electives to total 12 credits.

*Asian History*

Minor Colloquium Course

HIST 734 - Colloquium in Modern Asian History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 649A - History of Japan to 1800  
HIST 649B - History of Japan since 1800  
HIST 649C - Topics in Japanese History  
HIST 655A - History of China to 1800  
HIST 655B - History of China since 1800  
HIST 655C - Topics in Modern China  
HIST 689 - Comparative History  
HIST 698 - Advanced Historical Studies  
HIST 735 - Research Seminar in Modern Asian History  
HIST 740C - Historiography (Modern Asia)  
HIST 761 - Doctoral Independent Study

*Latin American History*

Minor Colloquium Course

HIST 736 - Colloquium in Modern Latin American History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 670 - History of Mexico  
HIST 671 - Revolution and Reaction in Contemporary Latin America  
HIST 672 - History of Brazil  
HIST 673 - History of the Andean Region  
HIST 674 - Latin American Ethnic Studies  
HIST 675 - Modern Latin American Film  
HIST 676 - The Mexican Revolution  
HIST 679A - West Africa and the Making of the Atlantic World  
HIST 689 - Comparative History  
HIST 695 - Special Topics in Gender and History  
HIST 737 - Research Seminar in Modern Latin American History  
HIST 740D - Historiography (Modern Latin America)  
HIST 761 - Doctoral Independent Study

*Public History*

Minor Colloquium Course

HIST 749 - Colloquium in Public History

Required Elective Courses

HIST 750 - Methods for the Study of Public History  
HIST 795 - Internship in Public History

Minor Elective Course

Complete one of the following courses:

HIST 751 - Museums and American Culture  
HIST 752 - Modern Archives: Theory and Methodology  
HIST 754 - Topics in Public History  
HIST 761 - Doctoral Independent Study

*U.S. History*

Minor Colloquium Course

Complete one of the following courses:

HIST 724 - Colloquium in American Cultural/Intellectual History  
HIST 726 - Colloquium in American Western History  
HIST 730 - Colloquium in American History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 601A - American Constitutional and Legal History I  
HIST 601B - American Constitutional and Legal History II  
HIST 604A - American Social History to 1860  
HIST 604B - American Social History, 1860-Present  
HIST 605 - History of the New South  
HIST 606A - The American West to 1849  
HIST 606B - The American West Since 1849  
HIST 607A - United States Foreign Relations I  
HIST 607B - United States Foreign Relations II  
HIST 610A - American Cultural and Intellectual History I  
HIST 610B - American Cultural and Intellectual History II  
HIST 611 - United States: Colonial Period  
HIST 612 - United States: Revolution and the New Republic  
HIST 614A - United States: National Period, 1815-1860  
HIST 614B - United States: Civil War and Reconstruction, 1860-1877  
HIST 615A - United States: Gilded Age, 1877-1900  
HIST 615B - United States: The Progressive Era, 1900-1920  
HIST 616A - Recent America: Era of Franklin D. Roosevelt, 1920-1945  
HIST 616B - Contemporary America: The U.S. Since 1945  
HIST 617A - Nevada and the Far West  
HIST 624 - Role of Religion in American Culture  
HIST 625 - History of Southern Nevada  
HIST 626 - The American West Through Film  
HIST 628 - History of Business in United States History  
HIST 629 - History of American Labor, 1607-

Present

HIST 632A - History of American Women to 1870  
HIST 632B - History of American Women, 1870 to Present  
HIST 633 - African-American History  
HIST 633B - African-American History to 1877  
HIST 633C - African-American History since 1877  
HIST 634 - Role of Cities in American History  
HIST 636 - Nazi Holocaust from the American Perspective  
HIST 637 - Family History  
HIST 638A - American Indian History to 1851  
HIST 638B - Ethnohistory of Native Americans Since 1851  
HIST 638C - Topics in American Indian History  
HIST 640 - Regions in American Indian History  
HIST 641 - American Environmental History  
HIST 643 - Comparative Environmental History  
HIST 643A - Historic Preservation  
HIST 644 - Latinos in the American West  
HIST 648 - Asian American History  
HIST 652A - Popular Culture in Nineteenth-Century America  
HIST 652B - Popular Culture in Twentieth-Century America  
HIST 653 - Women in Politics  
HIST 668 - History of Science  
HIST 682 - Music History I  
HIST 683 - Music History II  
HIST 683A - Urban Destruction and Reconstruction  
HIST 685 - Oral History  
HIST 686 - Military History of the United States  
HIST 687 - Topics in American Studies  
HIST 689 - Comparative History  
HIST 695 - Special Topics in Gender and History  
HIST 724 - Colloquium in American Cultural/Intellectual History  
HIST 725 - Seminar in American Cultural/Intellectual History  
HIST 726 - Colloquium in American Western History  
HIST 730 - Colloquium in American History  
HIST 731 - Research Seminar in American History  
HIST 740A - Historiography (United States - Domestic)  
HIST 740E - Historiography (United States - Diplomatic)  
HIST 740F - Historiography (American West)

HIST 748 - History and Policy  
HIST 761 - Doctoral Independent Study

*World History*

Minor Colloquium Course

HIST 738 - Colloquium in African and Middle Eastern History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750  
HIST 619B - Britain from 1750  
HIST 620 - Topics in Central Europe: 1914 - Present  
HIST 621 - History of Russia to 1825  
HIST 622 - History of Russia Since 1825  
HIST 623A - History of Germany to 1848  
HIST 623B - History of Germany Since 1848  
HIST 634A - European Urban History  
HIST 635A - Early Modern Intellectual History  
HIST 635B - Modern Intellectual History  
HIST 635C - Topics in European Cultural and Intellectual History  
HIST 645 - Cultural History of Modern Russia  
HIST 646 - History of the Russian Film  
HIST 647 - Revolutionary Russia 1905-1921  
HIST 649A - History of Japan to 1800  
HIST 649B - History of Japan since 1800  
HIST 649C - Topics in Japanese History  
HIST 655A - History of China to 1800  
HIST 655B - History of China since 1800  
HIST 655C - Topics in Modern China  
HIST 656 - Topics in Ancient History  
HIST 657 - Ancient Greek Civilization  
HIST 658 - Roman Civilization  
HIST 659 - Medieval Civilization  
HIST 659A - Topics in Medieval History  
HIST 660A - The Renaissance  
HIST 660B - The Reformation  
HIST 661 - Europe in the 18th Century  
HIST 661B - Early Modern Europe: 1550-1789  
HIST 662 - The French Revolution and Napoleon  
HIST 663 - Europe: 1815-1914  
HIST 664 - Europe: 1914 to the Present  
HIST 666 - European Diplomatic History, 1815-Present  
HIST 668 - History of Science

HIST 670 - History of Mexico  
HIST 671 - Revolution and Reaction in Contemporary Latin America  
HIST 672 - History of Brazil  
HIST 673 - History of the Andean Region  
HIST 674 - Latin American Ethnic Studies  
HIST 675 - Modern Latin American Film  
HIST 676 - The Mexican Revolution  
HIST 678A - Islamic and Middle Eastern History to 1750  
HIST 678B - Islamic and Middle Eastern History since 1750  
HIST 679 - History of the British Empire  
HIST 679A - West Africa and the Making of the Atlantic World  
HIST 682 - Music History I  
HIST 683 - Music History II  
HIST 689 - Comparative History  
HIST 691A - Women in the Ancient World  
HIST 691B - Women in Medieval Culture and Society  
HIST 692 - Woman's Role in European History: 1750-1970  
HIST 692A - Women In Early Modern Europe  
HIST 695 - Special Topics in Gender and History  
HIST 696 - Philosophy of History  
HIST 728 - Colloquium in European Cultural/Intellectual History  
HIST 729 - Research Seminar in European Cultural/Intellectual History  
HIST 734 - Colloquium in Modern Asian History  
HIST 735 - Research Seminar in Modern Asian History  
HIST 736 - Colloquium in Modern Latin American History  
HIST 737 - Research Seminar in Modern Latin American History  
HIST 739 - Research Seminar in African and Middle Eastern History  
HIST 740B - Historiography (Europe)  
HIST 740C - Historiography (Modern Asia)  
HIST 740H - Historiography (European Cultural/Intellectual)  
HIST 748 - History and Policy  
HIST 761 - Doctoral Independent Study

**Elective Courses – Credits: 3**

Complete 3 credits of History elective coursework, or other advisor-approved courses.

**After successfully completing the requirements above, students are eligible to earn the Master of Arts – History.**

#### **Additional Elective Courses – Credits: 18**

Complete 18 credits of History elective coursework, or other advisor-approved courses.

#### **Dissertation – Credits: 12**

HIST 791 - Dissertation

#### Degree Requirements

1. Students are expected to take courses with as many members of the faculty who specialize in the history of European Culture and Society as possible. Students are encouraged to take more than the minimum number of courses.
2. A minimum of 45 credit hours of course work must be at the 700-level (excluding Dissertation).
3. Foreign Language Requirement. This requirement can be met in any of the following three ways, though the chosen option must be approved by the chair of the student's examination committee:
  1. Demonstrated reading knowledge of two foreign languages.
  2. Demonstrated reading knowledge of one foreign language and advanced reading knowledge of the same language, assessed through the writing of a substantial historiographical essay in English based on scholarly literature in that foreign language.
  3. With the approval of the student's committee and the Graduate Coordinator, a student may demonstrate reading knowledge of one foreign language and the successful completion of SOC 604 - Statistical Methods in the Social Sciences.
4. The completion of the second seminar paper will constitute the master's culminating experience; it will be evaluated by a committee consisting of the instructor of record, the student's primary advisor and the graduate coordinator.
5. Please note that the MA degree will not be conferred automatically. Students must take the initiative to seek committee approval and apply for conferral through the Graduate College.
6. Doctoral students may also apply to transfer into the MA program at any point, but this will require a new application.
7. Students may take up to six credits of Comprehensive Exam Preparation, but these credits will not count towards the total credits required for the degree.
8. Written and Oral Qualifying Examinations. Students write a total of eight out of sixteen essay questions. Students prepare extensive reading lists of books and articles for each field of study in conjunction with the members of their advisory committee. The lists are based on scholarly works read in coursework, but substantial additional reading is required. Coursework alone does not constitute preparation for comprehensive exams. For purposes of examination, and through close consultation with the student's committee chair and members of the committee, coursework and supplemental reading will be divided into four examination areas, each of which is comprised of four questions from which the students write on two.
  1. Major Field (General European History): Students, in consultation with their advisors, will define the parameters of the major field. Specific chronological parameters will vary but students are required to answer questions on the full sweep of European history in the oral examination. A student writes on two of four questions.
  2. Major Field (Topical): Requires students to master the literature in European Culture and Society. A

student writes on two of four questions.

3. Theory and Methods: A student chooses one of the following fields: Applied Theory, Public History, or Comparative History. A student writes on one of two questions.
  4. Minor Field: A student chooses one of the following fields: United States History, World History, or Public History. A student may only be examined in Public History in one field. A student writes on one of two questions.
9. Students must pass the written portion of the qualifying exam before they are allowed to take the oral qualifying exam.
  10. Students may take up to three credits of Dissertation Prospectus course, but these credits will not count towards the total credits required for the degree.
  11. The prospectus colloquium must be held within three months of the successful completion of the comprehensive examinations. Students must formally present a prospectus for their proposed dissertation research to their advisory committee before taking dissertation credits. The prospectus must be accepted for the student to have ABD status in the History Department.
  12. A dissertation of substantial length and quality containing original research and interpretation on a topic in the field of European Culture and Society.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's (if applicable) and Doctoral portions of the program.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to

the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 4 Requirements: Post-Master's - North American West Track**

Total Credits Required: 47

Course Requirements

#### **Required Courses – Credits: 7**

HIST 726 - Colloquium in American Western History

HIST 727 - Research Seminar in American Western History

#### **Historiography Courses – Credits: 6**

Complete two of the following courses:

HIST 740A - Historiography (United States - Domestic)

HIST 740E - Historiography (United States - Diplomatic)

HIST 740F - Historiography (American West)

HIST 740G - Historiography (United States - Cultural/Intellectual)

#### **Additional Colloquium Courses – Credits: 3**

Complete one of the following courses:

HIST 724 - Colloquium in American Cultural/Intellectual History

HIST 730 - Colloquium in American History

#### **Seminar Course – Credits: 4**

Complete one of the following courses:

HIST 725 - Seminar in American Cultural/Intellectual History

HIST 731 - Research Seminar in American History

#### **Minor Field Courses – Credits: 12**

In consultation with your advisor select a minor field of study and complete 3 credits of colloquium and 9 credits of electives to total 12 credits.

### *Asian History*

Minor Colloquium Course

HIST 734 - Colloquium in Modern Asian History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 649A - History of Japan to 1800  
HIST 649B - History of Japan since 1800  
HIST 649C - Topics in Japanese History  
HIST 655A - History of China to 1800  
HIST 655B - History of China since 1800  
HIST 655C - Topics in Modern China  
HIST 689 - Comparative History  
HIST 698 - Advanced Historical Studies  
HIST 735 - Research Seminar in Modern Asian History  
HIST 740C - Historiography (Modern Asia)  
HIST 761 - Doctoral Independent Study

### *European History*

Minor Colloquium Course

Complete one of the following courses:

HIST 728 - Colloquium in European Cultural/Intellectual History  
HIST 732 - Colloquium in European History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750  
HIST 619B - Britain from 1750  
HIST 620 - Topics in Central Europe: 1914 - Present  
HIST 621 - History of Russia to 1825  
HIST 622 - History of Russia Since 1825  
HIST 623A - History of Germany to 1848  
HIST 623B - History of Germany Since 1848  
HIST 634A - European Urban History  
HIST 635A - Early Modern Intellectual History  
HIST 635B - Modern Intellectual History  
HIST 635C - Topics in European Cultural and Intellectual History  
HIST 645 - Cultural History of Modern Russia  
HIST 646 - History of the Russian Film  
HIST 647 - Revolutionary Russia 1905-1921

HIST 656 - Topics in Ancient History  
HIST 657 - Ancient Greek Civilization  
HIST 658 - Roman Civilization  
HIST 659 - Medieval Civilization  
HIST 659A - Topics in Medieval History  
HIST 660A - The Renaissance  
HIST 660B - The Reformation  
HIST 661 - Europe in the 18th Century  
HIST 661B - Early Modern Europe: 1550-1789  
HIST 662 - The French Revolution and Napoleon  
HIST 663 - Europe: 1815-1914  
HIST 664 - Europe: 1914 to the Present  
HIST 666 - European Diplomatic History, 1815-Present  
HIST 668 - History of Science  
HIST 679 - History of the British Empire  
HIST 679A - West Africa and the Making of the Atlantic World  
HIST 682 - Music History I  
HIST 683 - Music History II  
HIST 689 - Comparative History  
HIST 691A - Women in the Ancient World  
HIST 691B - Women in Medieval Culture and Society  
HIST 692B - Woman's Role in European History: 1750-1970  
HIST 692A - Women In Early Modern Europe  
HIST 695 - Special Topics in Gender and History  
HIST 696 - Philosophy of History  
HIST 728 - Colloquium in European Cultural/Intellectual History  
HIST 729 - Research Seminar in European Cultural/Intellectual History  
HIST 732 - Colloquium in European History  
HIST 733 - Research Seminar in European History  
HIST 760 - Advanced Studies in History  
HIST 740H - Historiography (European Cultural/Intellectual)  
HIST 761 - Doctoral Independent Study

### *Latin American History*

Minor Colloquium Course

HIST 736 - Colloquium in Modern Latin American History

Minor Elective Courses

Complete 9 credits from the following list of courses:



HIST 670 - History of Mexico  
HIST 671 - Revolution and Reaction in Contemporary Latin America  
HIST 672 - History of Brazil  
HIST 673 - History of the Andean Region  
HIST 674 - Latin American Ethnic Studies  
HIST 675 - Modern Latin American Film  
HIST 676 - The Mexican Revolution  
HIST 679A - West Africa and the Making of the Atlantic World  
HIST 689 - Comparative History  
HIST 695 - Special Topics in Gender and History  
HIST 737 - Research Seminar in Modern Latin American History  
HIST 740D - Historiography (Modern Latin America)  
HIST 761 - Doctoral Independent Study

*Public History*

Minor Colloquium Course

HIST 749 - Colloquium in Public History

Required Elective Courses

HIST 750 - Methods for the Study of Public History  
HIST 795 - Internship in Public History

Minor Elective Course

Complete one of the following courses:

HIST 751 - Museums and American Culture  
HIST 752 - Modern Archives: Theory and Methodology  
HIST 754 - Topics in Public History  
HIST 761 - Doctoral Independent Study

*World History*

Minor Colloquium Course

HIST 738 - Colloquium in African and Middle Eastern History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750  
HIST 619B - Britain from 1750

HIST 620 - Topics in Central Europe: 1914 - Present  
HIST 621 - History of Russia to 1825  
HIST 622 - History of Russia Since 1825  
HIST 623A - History of Germany to 1848  
HIST 623B - History of Germany Since 1848  
HIST 634A - European Urban History  
HIST 635A - Early Modern Intellectual History  
HIST 635B - Modern Intellectual History  
HIST 635C - Topics in European Cultural and Intellectual History  
HIST 645 - Cultural History of Modern Russia  
HIST 646 - History of the Russian Film  
HIST 647 - Revolutionary Russia 1905-1921  
HIST 649A - History of Japan to 1800  
HIST 649B - History of Japan since 1800  
HIST 649C - Topics in Japanese History  
HIST 655A - History of China to 1800  
HIST 655B - History of China since 1800  
HIST 655C - Topics in Modern China  
HIST 656 - Topics in Ancient History  
HIST 657 - Ancient Greek Civilization  
HIST 658 - Roman Civilization  
HIST 659 - Medieval Civilization  
HIST 659A - Topics in Medieval History  
HIST 660A - The Renaissance  
HIST 660B - The Reformation  
HIST 661 - Europe in the 18th Century  
HIST 661B - Early Modern Europe: 1550-1789  
HIST 662 - The French Revolution and Napoleon  
HIST 663 - Europe: 1815-1914  
HIST 664 - Europe: 1914 to the Present  
HIST 666 - European Diplomatic History, 1815-Present  
HIST 668 - History of Science  
HIST 670 - History of Mexico  
HIST 671 - Revolution and Reaction in Contemporary Latin America  
HIST 672 - History of Brazil  
HIST 673 - History of the Andean Region  
HIST 674 - Latin American Ethnic Studies  
HIST 675 - Modern Latin American Film  
HIST 676 - The Mexican Revolution  
HIST 678A - Islamic and Middle Eastern History to 1750  
HIST 678B - Islamic and Middle Eastern History since 1750  
HIST 679 - History of the British Empire  
HIST 679A - West Africa and the Making of the Atlantic World

HIST 682 - Music History I  
 HIST 683 - Music History II  
 HIST 689 - Comparative History  
 HIST 691A - Women in the Ancient World  
 HIST 691B - Women in Medieval Culture and Society  
 HIST 692B - Woman's Role in European History: 1750-1970  
 HIST 692A - Women In Early Modern Europe  
 HIST 695 - Special Topics in Gender and History  
 HIST 696 - Philosophy of History  
 HIST 728 - Colloquium in European Cultural/Intellectual History  
 HIST 729 - Research Seminar in European Cultural/Intellectual History  
 HIST 734 - Colloquium in Modern Asian History  
 HIST 735 - Research Seminar in Modern Asian History  
 HIST 736 - Colloquium in Modern Latin American History  
 HIST 737 - Research Seminar in Modern Latin American History  
 HIST 739 - Research Seminar in African and Middle Eastern History  
 HIST 740B - Historiography (Europe)  
 HIST 740C - Historiography (Modern Asia)  
 HIST 740H - Historiography (European Cultural/Intellectual)  
 HIST 748 - History and Policy  
 HIST 761 - Doctoral Independent Study

**Elective Courses – Credits: 3**

Complete 3 credits of History elective coursework, or other advisor-approved courses.

**Dissertation – Credits: 12**

HIST 791 - Dissertation

**Degree Requirements**

1. Students are expected to take courses with as many members of the faculty who specialize in the history of the North American West as possible. Students are encouraged to take more than the minimum number of courses.

2. A minimum of 26 credit hours of course work must be at the 700-level (excluding Dissertation).
3. Foreign Language Requirement. This requirement can be met in any of the following three ways, though the chosen option must be approved by the chair of the student's examination committee:
  1. Demonstrated reading knowledge of two foreign languages.
  2. Demonstrated reading knowledge of one foreign language and advanced reading knowledge of the same language, assessed through the writing of a substantial historiographical essay in English based on scholarly literature in that foreign language.
  3. With the approval of the student's committee and the Graduate Coordinator, a student may demonstrate reading knowledge of one foreign language and the successful completion of SOC 604 - Statistical Methods in the Social Sciences.
4. Students may take up to six credits of Comprehensive Exam Preparation, but these credits will not count towards the total credits required for the degree.
5. Written and Oral Qualifying Examinations. Students write a total of six out of twelve essay questions. Students prepare extensive reading lists of books and articles for each field of study in conjunction with the members of their advisory committee. The lists are based on scholarly works read in coursework, but substantial additional reading is required. Coursework alone does not constitute preparation for comprehensive exams. For purposes of examination, and through close consultation with the student's committee chair and members of the committee, coursework and supplemental reading will be divided into four examination areas, each of which is comprised of four questions from which the students write on two.

1. Major Field (General United States History): the written examination focuses on the first or second half of U.S. History (1600 to 1877, or 1850 to Present), but students are required to answer questions on the full sweep of U.S. History in the oral examination. A student writes on two of four questions.
2. Major Field (Topical): Requires students to master the literature in North American West. A student writes on two of four questions.
3. Theory and Methods: A student chooses Applied Theory, Comparative History, or Public History. A student writes on one of two questions.
4. Minor Field: A student chooses one of the following fields: Asian History, European History, Latin American History, Public History, or World History. A student may only be examined in Public History in one field. A student writes on one of two questions.
6. Students must pass the written portion of the qualifying exam before they are allowed to take the oral qualifying exam.
7. Students may take up to three credits of Dissertation Prospectus course, but these credits will not count towards the total credits required for the degree.
8. The prospectus colloquium must be held within three months of the successful completion of the comprehensive examinations. Students must formally present a prospectus for their proposed dissertation research to their advisory committee before taking dissertation credits. The prospectus must be accepted for the student to have ABD status in the History Department.

A dissertation of substantial length and quality containing original research and interpretation on a topic in the field of Northern American West.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 5 Requirements: Post-Master's - North American Culture and Society Track**

Total Credits Required: 47

#### Course Requirements

#### **Required Courses – Credits: 7**

HIST 724 - Colloquium in American Cultural/Intellectual History  
 HIST 725 - Seminar in American Cultural/Intellectual History

#### **Historiography Courses – Credits: 6**

Complete two of the following courses:

HIST 740A - Historiography (United States - Domestic)  
 HIST 740E - Historiography (United States - Diplomatic)  
 HIST 740F - Historiography (American West)  
 HIST 740G - Historiography (United States - Cultural/Intellectual)  
 HIST 740H - Historiography (European Cultural/Intellectual)

#### **Colloquium Courses – Credits: 3**

Complete one of the following courses:

HIST 724 - Colloquium in American Cultural/Intellectual History  
 HIST 726 - Colloquium in American Western History  
 HIST 730 - Colloquium in American History

**Seminar Course – Credits: 4**

Complete one of the following courses:

HIST 727 - Research Seminar in American Western History

HIST 731 - Research Seminar in American History

**Minor Field Courses – Credits: 12**

In consultation with your advisor select a minor field of study and complete 3 credits of colloquium and 9 credits of electives to total 12 credits.

*Asian History*

Minor Colloquium Course

HIST 734 - Colloquium in Modern Asian History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 649A - History of Japan to 1800

HIST 649B - History of Japan since 1800

HIST 649C - Topics in Japanese History

HIST 655A - History of China to 1800

HIST 655B - History of China since 1800

HIST 655C - Topics in Modern China

HIST 689 - Comparative History

HIST 698 - Advanced Historical Studies

HIST 735 - Research Seminar in Modern Asian History

HIST 740C - Historiography (Modern Asia)

HIST 761 - Doctoral Independent Study

*European History*

Minor Colloquium Course

Complete one of the following courses:

HIST 728 - Colloquium in European Cultural/Intellectual History

HIST 732 - Colloquium in European History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750

HIST 619B - Britain from 1750

HIST 620 - Topics in Central Europe: 1914 - Present

HIST 621 - History of Russia to 1825

HIST 622 - History of Russia Since 1825

HIST 623A - History of Germany to 1848

HIST 623B - History of Germany Since 1848

HIST 634A - European Urban History

HIST 635A - Early Modern Intellectual History

HIST 635B - Modern Intellectual History

HIST 635C - Topics in European Cultural and Intellectual History

HIST 645 - Cultural History of Modern Russia

HIST 646 - History of the Russian Film

HIST 647 - Revolutionary Russia 1905-1921

HIST 656 - Topics in Ancient History

HIST 657 - Ancient Greek Civilization

HIST 658 - Roman Civilization

HIST 659 - Medieval Civilization

HIST 659A - Topics in Medieval History

HIST 660A - The Renaissance

HIST 660B - The Reformation

HIST 661 - Europe in the 18th Century

HIST 661B - Early Modern Europe: 1550-1789

HIST 662 - The French Revolution and Napoleon

HIST 663 - Europe: 1815-1914

HIST 664 - Europe: 1914 to the Present

HIST 666 - European Diplomatic History, 1815-Present

HIST 668 - History of Science

HIST 679 - History of the British Empire

HIST 679A - West Africa and the Making of the Atlantic World

HIST 682 - Music History I

HIST 683 - Music History II

HIST 689 - Comparative History

HIST 691A - Women in the Ancient World

HIST 691B - Women in Medieval Culture and Society

HIST 692B - Woman's Role in European History: 1750-1970

HIST 692A - Women In Early Modern Europe

HIST 695 - Special Topics in Gender and History

HIST 696 - Philosophy of History

HIST 728 - Colloquium in European Cultural/Intellectual History

HIST 729 - Research Seminar in European Cultural/Intellectual History

HIST 732 - Colloquium in European History

HIST 733 - Research Seminar in European History

HIST 760 - Advanced Studies in History

HIST 740H - Historiography (European Cultural/Intellectual)  
HIST 761 - Doctoral Independent Study

*Latin American History*

Minor Colloquium Course

HIST 736 - Colloquium in Modern Latin American History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 670 - History of Mexico  
HIST 671 - Revolution and Reaction in Contemporary Latin America  
HIST 672 - History of Brazil  
HIST 673 - History of the Andean Region  
HIST 674 - Latin American Ethnic Studies  
HIST 675 - Modern Latin American Film  
HIST 676 - The Mexican Revolution  
HIST 679A - West Africa and the Making of the Atlantic World  
HIST 689 - Comparative History  
HIST 695 - Special Topics in Gender and History  
HIST 737 - Research Seminar in Modern Latin American History  
HIST 740D - Historiography (Modern Latin America)  
HIST 761 - Doctoral Independent Study

*Public History*

Minor Colloquium Course

HIST 749 - Colloquium in Public History

Required Elective Course

HIST 750 - Methods for the Study of Public History  
HIST 795 - Internship in Public History

Minor Elective Course

Complete one of the following courses:

HIST 751 - Museums and American Culture  
HIST 752 - Modern Archives: Theory and Methodology

HIST 754 - Topics in Public History  
HIST 761 - Doctoral Independent Study

*World History*

Minor Colloquium Course

HIST 738 - Colloquium in African and Middle Eastern History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750  
HIST 619B - Britain from 1750  
HIST 620 - Topics in Central Europe: 1914 - Present  
HIST 621 - History of Russia to 1825  
HIST 622 - History of Russia Since 1825  
HIST 623A - History of Germany to 1848  
HIST 623B - History of Germany Since 1848  
HIST 634A - European Urban History  
HIST 635A - Early Modern Intellectual History  
HIST 635B - Modern Intellectual History  
HIST 635C - Topics in European Cultural and Intellectual History  
HIST 645 - Cultural History of Modern Russia  
HIST 646 - History of the Russian Film  
HIST 647 - Revolutionary Russia 1905-1921  
HIST 649A - History of Japan to 1800  
HIST 649B - History of Japan since 1800  
HIST 649C - Topics in Japanese History  
HIST 655A - History of China to 1800  
HIST 655B - History of China since 1800  
HIST 655C - Topics in Modern China  
HIST 656 - Topics in Ancient History  
HIST 657 - Ancient Greek Civilization  
HIST 658 - Roman Civilization  
HIST 659 - Medieval Civilization  
HIST 659A - Topics in Medieval History  
HIST 660A - The Renaissance  
HIST 660B - The Reformation  
HIST 661 - Europe in the 18th Century  
HIST 661B - Early Modern Europe: 1550-1789  
HIST 662 - The French Revolution and Napoleon  
HIST 663 - Europe: 1815-1914  
HIST 664 - Europe: 1914 to the Present  
HIST 666 - European Diplomatic History, 1815-Present  
HIST 668 - History of Science

HIST 670 - History of Mexico  
 HIST 671 - Revolution and Reaction in Contemporary Latin America  
 HIST 672 - History of Brazil  
 HIST 673 - History of the Andean Region  
 HIST 674 - Latin American Ethnic Studies  
 HIST 675 - Modern Latin American Film  
 HIST 676 - The Mexican Revolution  
 HIST 678A - Islamic and Middle Eastern History to 1750  
 HIST 678B - Islamic and Middle Eastern History since 1750  
 HIST 679 - History of the British Empire  
 HIST 679A - West Africa and the Making of the Atlantic World  
 HIST 682 - Music History I  
 HIST 683 - Music History II  
 HIST 689 - Comparative History  
 HIST 691A - Women in the Ancient World  
 HIST 691B - Women in Medieval Culture and Society  
 HIST 692B - Woman's Role in European History: 1750-1970  
 HIST 692A - Women In Early Modern Europe  
 HIST 695 - Special Topics in Gender and History  
 HIST 696 - Philosophy of History  
 HIST 728 - Colloquium in European Cultural/Intellectual History  
 HIST 729 - Research Seminar in European Cultural/Intellectual History  
 HIST 734 - Colloquium in Modern Asian History  
 HIST 735 - Research Seminar in Modern Asian History  
 HIST 736 - Colloquium in Modern Latin American History  
 HIST 737 - Research Seminar in Modern Latin American History  
 HIST 739 - Research Seminar in African and Middle Eastern History  
 HIST 740B - Historiography (Europe)  
 HIST 740C - Historiography (Modern Asia))  
 HIST 740H - Historiography (European Culture/Intellectual)  
 HIST 748 - History and Policy  
 HIST 761 - Doctoral Independent Study

**Elective Courses – Credits: 3**

Complete 3 credits of History elective coursework, or other advisor-approved courses.

**Dissertation – Credits: 12**

HIST 791 - Dissertation

Degree Requirements

1. Students are expected to take courses with as many members of the faculty who specialize in the history of North American Culture and Society as possible. Students are encouraged to take more than the minimum number of courses.
2. A minimum of 26 credit hours of course work must be at the 700-level (excluding Dissertation).
3. Foreign Language Requirement. This requirement can be met in any of the following three ways, though the chosen option must be approved by the chair of the student's examination committee:
  - a. Demonstrated reading knowledge of two foreign languages.
  - b. Demonstrated reading knowledge of one foreign language and advanced reading knowledge of the same language, assessed through the writing of a substantial historiographical essay in English based on scholarly literature in that foreign language.
  - c. With the approval of the student's committee and the Graduate Coordinator, a student may demonstrate reading knowledge of one foreign language and the successful completion of SOC 604 - Statistical Methods in the Social Sciences.
4. Students may take up to six credits of Comprehensive Exam Preparation, but these credits will not count towards the total credits required for the degree.
5. Written and Oral Qualifying Examinations. Students write a total of six out of twelve essay questions. Students prepare extensive reading lists of books and articles for each field of study in conjunction with the

members of their advisory committee. The lists are based on scholarly works read in coursework, but substantial additional reading is required. Coursework alone does not constitute preparation for comprehensive exams. For purposes of examination, and through close consultation with the student's committee chair and members of the committee, coursework and supplemental reading will be divided into four examination areas, each of which is comprised of four questions from which the students write on two.

- a. Major Field (General United States History): the written examination focuses on the first or second half of U.S. History (1600 to 1877, or 1850 to Present), but students are required to answer questions on the full sweep of U.S. History in the oral examination. A student writes on two of four questions.
  - b. Major Field (Topical): Requires students to master the literature in North American Culture and Society. A student writes on two of four questions.
  - c. Theory and Methods: A student chooses Applied Theory, Comparative History, or Public History. A student writes on one of two questions.
  - d. Minor Field: A student chooses one of the following fields: Asian History, European History, Latin American History, Public History, or World History. A student may only be examined in Public History in one field. A student writes on one of two questions.
6. Students must pass the written portion of the qualifying exam before they are allowed to take the oral qualifying exam.
  7. Students may take up to three credits of Dissertation Prospectus course, but these credits will not count towards the total credits required for the degree.
  8. The prospectus colloquium must be held within three months of the successful

completion of the comprehensive examinations. Students must formally present a prospectus for their proposed dissertation research to their advisory committee before taking dissertation credits. The prospectus must be accepted for the student to have ABD status in the History Department.

9. A dissertation of substantial length and quality containing original research and interpretation on a topic in the field of North American Culture and Society.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 6 Requirements: Post-Master's - European Culture and Society Track**

Total Credits Required: 47

#### Course Requirements

#### **Required Courses – Credits: 7**

HIST 728 - Colloquium in European Cultural/Intellectual History

HIST 729 - Research Seminar in European Cultural/Intellectual History

#### **Historiography Courses – Credits: 6**

Complete two of the following courses:

HIST 740B - Historiography (Europe)

HIST 740C - Historiography (Modern Asia)

HIST 740D - Historiography (Modern Latin America)

HIST 740G - Historiography (United States - Cultural/Intellectual)

HIST 740H - Historiography (European Cultural/Intellectual)

### **Colloquium Courses – Credits: 3**

Complete one of the following courses (excluding any courses taken as Non-European Colloquium):

HIST 732 - Colloquium in European History

HIST 734 - Colloquium in Modern Asian History

HIST 736 - Colloquium in Modern Latin American History

HIST 738 - Colloquium in African and Middle Eastern History

### **Seminar Courses – Credits: 4**

Complete one of the following courses:

HIST 729 - Research Seminar in European Cultural/Intellectual History

HIST 733 - Research Seminar in European History

HIST 735 - Research Seminar in Modern Asian History

HIST 737 - Research Seminar in Modern Latin American History

HIST 739 - Research Seminar in African and Middle Eastern History

### **Minor Field Courses – Credits: 12**

In consultation with your advisor select a minor field of study and complete 3 credits of colloquium and 9 credits of electives to total 12 credits.

#### *Asian History*

Minor Colloquium Course

HIST 734 - Colloquium in Modern Asian History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 649A - History of Japan to 1800

HIST 649B - History of Japan since 1800

HIST 649C - Topics in Japanese History

HIST 655A - History of China to 1800

HIST 655B - History of China since 1800

HIST 655C - Topics in Modern China

HIST 689 - Comparative History

HIST 698 - Advanced Historical Studies

HIST 735 - Research Seminar in Modern Asian History

HIST 740C - Historiography

HIST 761 - Doctoral Independent Study

#### *Latin American History*

Minor Colloquium Course

HIST 736 - Colloquium in Modern Latin American History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 670 - History of Mexico

HIST 671 - Revolution and Reaction in Contemporary Latin America

HIST 672 - History of Brazil

HIST 673 - History of the Andean Region

HIST 674 - Latin American Ethnic Studies

HIST 675 - Modern Latin American Film

HIST 676 - The Mexican Revolution

HIST 679A - West Africa and the Making of the Atlantic World

HIST 689 - Comparative History

HIST 695 - Special Topics in Gender and History

HIST 737 - Research Seminar in Modern Latin American History

HIST 740D - Historiography (Modern Latin America)

HIST 761 - Doctoral Independent Study

#### *Public History*

Minor Colloquium Course

HIST 749 - Colloquium in Public History

Required Elective Courses

HIST 750 - Methods for the Study of Public History

HIST 795 - Internship in Public History

Minor Elective Course

Complete one of the following courses:

HIST 751 - Museums and American Culture

HIST 752 - Modern Archives: Theory and



Methodology  
HIST 754 - Topics in Public History  
HIST 761 - Doctoral Independent Study

*U.S. History*

Minor Colloquium Course

Complete one of the following courses:

HIST 724 - Colloquium in American Cultural/Intellectual History  
HIST 726 - Colloquium in American Western History  
HIST 730 - Colloquium in American History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 601A - American Constitutional and Legal History I  
HIST 601B - American Constitutional and Legal History II  
HIST 604A - American Social History to 1860  
HIST 604B - American Social History, 1860-Present  
HIST 605 - History of the New South  
HIST 606A - The American West to 1849  
HIST 606B - The American West Since 1849  
HIST 607A - United States Foreign Relations I  
HIST 607B - United States Foreign Relations II  
HIST 610A - American Cultural and Intellectual History I  
HIST 610B - American Cultural and Intellectual History II  
HIST 611 - United States: Colonial Period  
HIST 612 - United States: Revolution and the New Republic  
HIST 614A - United States: National Period, 1815-1860  
HIST 614B - United States: Civil War and Reconstruction, 1860-1877  
HIST 615A - United States: Gilded Age, 1877-1900  
HIST 615B - United States: The Progressive Era, 1900-1920  
HIST 616A - Recent America: Era of Franklin D. Roosevelt, 1920-1945  
HIST 616B - Contemporary America: The U.S. Since 1945  
HIST 617A - Nevada and the Far West

HIST 624 - Role of Religion in American Culture  
HIST 625 - History of Southern Nevada  
HIST 626 - The American West Through Film  
HIST 628 - History of Business in United States History  
HIST 629 - History of American Labor, 1607-Present  
HIST 632A - History of American Women to 1870  
HIST 632B - History of American Women, 1870 to Present  
HIST 633 - African-American History  
HIST 633B - African-American History to 1877  
HIST 633C - African-American History since 1877  
HIST 634 - Role of Cities in American History  
HIST 636 - Nazi Holocaust from the American Perspective  
HIST 637 - Family History  
HIST 638A - American Indian History to 1851  
HIST 638B - Ethnohistory of Native Americans Since 1851  
HIST 638C - Topics in American Indian History  
HIST 640 - Regions in American Indian History  
HIST 641 - American Environmental History  
HIST 643 - Comparative Environmental History  
HIST 643A - Historic Preservation  
HIST 644 - Latinos in the American West  
HIST 648 - Asian American History  
HIST 652A - Popular Culture in Nineteenth-Century America  
HIST 652B - Popular Culture in Twentieth-Century America  
HIST 653 - Women in Politics  
HIST 668 - History of Science  
HIST 682 - Music History I  
HIST 683 - Music History II  
HIST 683A - Urban Destruction and Reconstruction  
HIST 685 - Oral History  
HIST 686 - Military History of the United States  
HIST 687 - Topics in American Studies  
HIST 689 - Comparative History  
HIST 695 - Special Topics in Gender and History  
HIST 724 - Colloquium in American Cultural/Intellectual History  
HIST 725 - Seminar in American Cultural/Intellectual History  
HIST 726 - Colloquium in American Western History  
HIST 730 - Colloquium in American History  
HIST 731 - Research Seminar in American History

HIST 740A - Historiography (United States - Domestic)  
HIST 740E - Historiography (United States - Diplomatic)  
HIST 740F - Historiography (American West)  
HIST 748 - History and Policy  
HIST 761 - Doctoral Independent Study

*World History*

Minor Colloquium Course

HIST 738 - Colloquium in African and Middle Eastern History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750  
HIST 619B - Britain from 1750  
HIST 620 - Topics in Central Europe: 1914 - Present  
HIST 621 - History of Russia to 1825  
HIST 622 - History of Russia Since 1825  
HIST 623A - History of Germany to 1848  
HIST 623B - History of Germany Since 1848  
HIST 634A - European Urban History  
HIST 635A - Early Modern Intellectual History  
HIST 635B - Modern Intellectual History  
HIST 635C - Topics in European Cultural and Intellectual History  
HIST 645 - Cultural History of Modern Russia  
HIST 646 - History of the Russian Film  
HIST 647 - Revolutionary Russia 1905-1921  
HIST 649A - History of Japan to 1800  
HIST 649B - History of Japan since 1800  
HIST 649C - Topics in Japanese History  
HIST 655A - History of China to 1800  
HIST 655B - History of China since 1800  
HIST 655C - Topics in Modern China  
HIST 656 - Topics in Ancient History  
HIST 657 - Ancient Greek Civilization  
HIST 658 - Roman Civilization  
HIST 659 - Medieval Civilization  
HIST 659A - Topics in Medieval History  
HIST 660A - The Renaissance  
HIST 660B - The Reformation  
HIST 661 - Europe in the 18th Century  
HIST 661B - Early Modern Europe: 1550-1789  
HIST 662 - The French Revolution and Napoleon

HIST 663 - Europe: 1815-1914  
HIST 664 - Europe: 1914 to the Present  
HIST 666 - European Diplomatic History, 1815-Present  
HIST 668 - History of Science  
HIST 670 - History of Mexico  
HIST 671 - Revolution and Reaction in Contemporary Latin America  
HIST 672 - History of Brazil  
HIST 673 - History of the Andean Region  
HIST 674 - Latin American Ethnic Studies  
HIST 675 - Modern Latin American Film  
HIST 676 - The Mexican Revolution  
HIST 678A - Islamic and Middle Eastern History to 1750  
HIST 678B - Islamic and Middle Eastern History since 1750  
HIST 679 - History of the British Empire  
HIST 679A - West Africa and the Making of the Atlantic World  
HIST 682 - Music History I  
HIST 683 - Music History II  
HIST 689 - Comparative History  
HIST 691A - Women in the Ancient World  
HIST 691B - Women in Medieval Culture and Society  
HIST 692B - Woman's Role in European History: 1750-1970  
HIST 692A - Women In Early Modern Europe  
HIST 695 - Special Topics in Gender and History  
HIST 696 - Philosophy of History HIST 728 - Colloquium in European Cultural/Intellectual History  
HIST 729 - Research Seminar in European Cultural/Intellectual History  
HIST 734 - Colloquium in Modern Asian History  
HIST 735 - Research Seminar in Modern Asian History  
HIST 736 - Colloquium in Modern Latin American History  
HIST 737 - Research Seminar in Modern Latin American History  
HIST 739 - Research Seminar in African and Middle Eastern History  
HIST 740B - Historiography (Europe)  
HIST 740C - Historiography (Modern Asia)  
HIST 740H - Historiography (European Culture/Intellectual)

HIST 748 - History and Policy  
HIST 761 - Doctoral Independent Study

**Elective Courses – Credits: 3**

Complete 3 credits of History elective coursework, or other advisor-approved courses.

**Dissertation – Credits: 12**

HIST 791 - Dissertation

**Degree Requirements**

1. Students are expected to take courses with as many members of the faculty who specialize in the history of European Culture and Society as possible. Students are encouraged to take more than the minimum number of courses.
2. A minimum of 26 credit hours of course work must be at the 700-level (excluding Dissertation).
3. Foreign Language Requirement. This requirement can be met in any of the following three ways, though the chosen option must be approved by the chair of the student's examination committee:
  1. Demonstrated reading knowledge of two foreign languages.
  2. Demonstrated reading knowledge of one foreign language and advanced reading knowledge of the same language, assessed through the writing of a substantial historiographical essay in English based on scholarly literature in that foreign language.
  3. With the approval of the student's committee and the Graduate Coordinator, a student may demonstrate reading knowledge of one foreign language and the successful completion of SOC 604 - Statistical Methods in the Social Sciences.
4. Students may take up to six credits of Comprehensive Exam Preparation, but these credits will not count towards the total credits required for the degree.
5. Written and Oral Qualifying Examinations. Students write a total of six out of twelve essay questions. Students prepare extensive reading lists of books and articles for each field of study in conjunction with the members of their advisory committee. The lists are based on scholarly works read in coursework, but substantial additional reading is required. Coursework alone does not constitute preparation for comprehensive exams. For purposes of examination, and through close consultation with the student's committee chair and members of the committee, coursework and supplemental reading will be divided into four examination areas, each of which is comprised of four questions from which the students write on two.
  1. Major Field (General European History): Students, in consultation with their advisors, will define the parameters of the major field. Specific chronological parameters will vary but students are required to answer questions on the full sweep of European history in the oral examination. A student writes on two of four questions.
  2. Major Field (Topical): Requires students to master the literature in European Culture and Society. A student writes on two of four questions.
  3. Theory and Methods: A student chooses one of the following fields: Applied Theory, Public History, or Comparative History. A student writes on one of two questions.
  4. Minor Field: A student chooses one of the following fields: Asian History, Latin American History, Public History, United States History, or World History. A student may only be examined in Public History in one field. A student writes on one of two questions.

6. Students must pass the written portion of the qualifying exam before they are allowed to take the oral qualifying exam.
7. Students may take up to three credits of Dissertation Prospectus course, but these credits will not count towards the total credits required for the degree.
8. The prospectus colloquium must be held within three months of the successful completion of the comprehensive examinations. Students must formally present a prospectus for their proposed dissertation research to their advisory committee before taking dissertation credits. The prospectus must be accepted for the student to have ABD status in the History Department.
9. A dissertation of substantial length and quality containing original research and interpretation on a topic in the field of European Culture and Society.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

## Master of Arts - History

### Plan Description

The Department of History offers a Master of Arts degree with specializations in the following areas: United States, Europe, Asia, Latin America, and Public History (minor). The program is designed to broaden and deepen the student's understanding of the heritage of human experience. It also sharpens scholarly skills and provides for some specialization in specific fields or periods of history.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

Learning outcomes for specific subplan tracks can be found below:

- Master of Arts - History; Non-Thesis
- Master of Arts - History; Thesis

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Students must meet the following requirements for admission to graduate standing.

1. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.
2. An overall undergraduate grade point average of at least 3.00.
3. A grade point average of at least 3.30 in history courses.
4. Recommendations from two former instructors addressing the applicant's preparedness for graduate work in history.
5. A minimum of 18 credits in history.
6. Submission of a writing sample, preferably a research paper, representative of undergraduate work.
7. Submission of a statement of purpose in which the applicant describes historical

areas and approaches of particular interest, background and training for advanced work in history, and academic and professional goals.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: United States History Track**

Total Credits Required: 35

Course Requirements

#### **Required Courses – Credits: 1**

HIST 710 - The Professional Historian

#### **Historiography Courses – Credits: 3**

Complete one of the following courses:

HIST 740A - Historiography (United States - Domestic)  
HIST 740E - Historiography (United States - Diplomatic)  
HIST 740F - Historiography (American West)  
HIST 740G - Historiography (United States - Cultural/Intellectual)

#### **Colloquium Course – Credits: 3**

Complete one of the following courses:

HIST 724 - Colloquium in American Cultural/Intellectual History  
HIST 726 - Colloquium in American Western History  
HIST 730 - Colloquium in American History

#### **Seminar Course – Credits: 4**

Complete one of the following courses:

HIST 725 - Seminar in American Cultural/Intellectual History  
HIST 727 - Research Seminar in American Western History  
HIST 731 - Research Seminar in American History

#### **Elective Courses – Credits: 6-12**

Students completing a thesis must complete 6 credits of History elective coursework, or other advisor-approved courses. Students who choose not to complete a thesis must complete 12 credits of History elective coursework, or other advisor-approved courses.

#### **Minor Field Courses – Credits: 12**

In consultation with your advisor select a minor field of study and complete 3 credits of colloquium and 9 credits of electives to total 12 credits.

*Asian History*

Minor Colloquium Course

HIST 734 - Colloquium in Modern Asian History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 649A - History of Japan to 1800  
HIST 649B - History of Japan since 1800  
HIST 649C - Topics in Japanese History  
HIST 655A - History of China to 1800  
HIST 655B - History of China since 1800  
HIST 655C - Topics in Modern China  
HIST 689 - Comparative History  
HIST 698 - Advanced Historical Studies  
HIST 735 - Research Seminar in Modern Asian History  
HIST 740C - Historiography (Modern Asia)  
HIST 760 - Advanced Studies in History

#### **European History**

Minor Colloquium Course

Complete one of the following courses:

HIST 728 - Colloquium in European  
Cultural/Intellectual History  
HIST 732 - Colloquium in European History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750  
HIST 619B - Britain from 1750  
HIST 620 - Topics in Central Europe: 1914 - Present  
HIST 621 - History of Russia to 1825  
HIST 622 - History of Russia Since 1825  
HIST 623A - History of Germany to 1848  
HIST 623B - History of Germany Since 1848  
HIST 634A - European Urban History  
HIST 635A - Early Modern Intellectual History  
HIST 635B - Modern Intellectual History  
HIST 635C - Topics in European Cultural and  
Intellectual History  
HIST 645 - Cultural History of Modern Russia  
HIST 646 - History of the Russian Film  
HIST 647 - Revolutionary Russia 1905-1921  
HIST 656 - Topics in Ancient History  
HIST 657 - Ancient Greek Civilization  
HIST 658 - Roman Civilization  
HIST 659 - Medieval Civilization  
HIST 659A - Topics in Medieval History  
HIST 660A - The Renaissance  
HIST 660B - The Reformation  
HIST 661 - Europe in the 18th Century  
HIST 661B - Early Modern Europe: 1550-1789  
HIST 662 - The French Revolution and Napoleon  
HIST 663 - Europe: 1815-1914  
HIST 664 - Europe: 1914 to the Present  
HIST 666 - European Diplomatic History, 1815-  
Present  
HIST 668 - History of Science  
HIST 679 - History of the British Empire  
HIST 679A - West Africa and the Making of the  
Atlantic World  
HIST 682 - Music History I  
HIST 683 - Music History II  
HIST 689 - Comparative History  
HIST 691A - Women in the Ancient World  
HIST 691B - Women in Medieval Culture and  
Society  
HIST 692 - Woman's Role in European History:  
1750-1970

HIST 692A - Women In Early Modern Europe  
HIST 695 - Special Topics in Gender and History  
HIST 696 - Philosophy of History  
HIST 728 - Colloquium in European  
Cultural/Intellectual History  
HIST 729 - Research Seminar in European  
Cultural/Intellectual History  
HIST 732 - Colloquium in European History  
HIST 733 - Research Seminar in European History  
HIST 760 - Advanced Studies in History  
HIST 740H - Historiography (European -  
Cultural/Intellectual)  
HIST 737 - Research Seminar in Modern Latin  
American History

### **Latin American History**

Minor Colloquium Course

HIST 736 - Colloquium in Modern Latin American  
History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 670 - History of Mexico  
HIST 671 - Revolution and Reaction in  
Contemporary Latin America  
HIST 672 - History of Brazil  
HIST 673 - History of the Andean Region  
HIST 674 - Latin American Ethnic Studies  
HIST 675 - Modern Latin American Film  
HIST 676 - The Mexican Revolution  
HIST 679A - West Africa and the Making of the  
Atlantic World  
HIST 689 - Comparative History  
HIST 695 - Special Topics in Gender and History  
HIST 737 - Research Seminar in Modern Latin  
American History  
HIST 740D - Historiography (European -  
Cultural/Intellectual)  
HIST 760 - Advanced Studies in History

### **Public History**

Minor Colloquium Course

HIST 749 - Colloquium in Public History

Required Elective Course

HIST 750 - Methods for the Study of Public History  
HIST 795 - Internship in Public History

Minor Elective Course

Complete one of the following courses:

HIST 751 - Museums and American Culture  
HIST 752 - Modern Archives: Theory and Methodology  
HIST 754 - Topics in Public History  
HIST 760 - Advanced Studies in History

### **World History**

Minor Colloquium Course

HIST 738 - Colloquium in African and Middle Eastern History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750  
HIST 619B - Britain from 1750  
HIST 620 - Topics in Central Europe: 1914 - Present  
HIST 621 - History of Russia to 1825  
HIST 622 - History of Russia Since 1825  
HIST 623A - History of Germany to 1848  
HIST 623B - History of Germany Since 1848  
HIST 634A - European Urban History  
HIST 635A - Early Modern Intellectual History  
HIST 635B - Modern Intellectual History  
HIST 635C - Topics in European Cultural and Intellectual History  
HIST 645 - Cultural History of Modern Russia  
HIST 646 - History of the Russian Film  
HIST 647 - Revolutionary Russia 1905-1921  
HIST 649A - History of Japan to 1800  
HIST 649B - History of Japan since 1800  
HIST 649C - Topics in Japanese History  
HIST 655A - History of China to 1800  
HIST 655B - History of China since 1800  
HIST 655C - Topics in Modern China  
HIST 656 - Topics in Ancient History  
HIST 657 - Ancient Greek Civilization  
HIST 658 - Roman Civilization  
HIST 659 - Medieval Civilization  
HIST 659A - Topics in Medieval History  
HIST 660A - The Renaissance

HIST 660B - The Reformation  
HIST 661 - Europe in the 18th Century  
HIST 661B - Early Modern Europe: 1550-1789  
HIST 662 - The French Revolution and Napoleon  
HIST 663 - Europe: 1815-1914  
HIST 664 - Europe: 1914 to the Present  
HIST 666 - European Diplomatic History, 1815-Present  
HIST 668 - History of Science  
HIST 670 - History of Mexico  
HIST 671 - Revolution and Reaction in Contemporary Latin America  
HIST 672 - History of Brazil  
HIST 673 - History of the Andean Region  
HIST 674 - Latin American Ethnic Studies  
HIST 675 - Modern Latin American Film  
HIST 676 - The Mexican Revolution  
HIST 678A - Islamic and Middle Eastern History to 1750  
HIST 678B - Islamic and Middle Eastern History since 1750  
HIST 679 - History of the British Empire  
HIST 679A - West Africa and the Making of the Atlantic World  
HIST 682 - Music History I  
HIST 683 - Music History II  
HIST 689 - Comparative History  
HIST 691A - Women in the Ancient World  
HIST 691B - Women in Medieval Culture and Society  
HIST 692 - Woman's Role in European History: 1750-1970  
HIST 692A - Women In Early Modern Europe  
HIST 695 - Special Topics in Gender and History  
HIST 696 - Philosophy of History  
HIST 728 - Colloquium in European Cultural/Intellectual History  
HIST 729 - Research Seminar in European Cultural/Intellectual History  
HIST 734 - Colloquium in Modern Asian History  
HIST 735 - Research Seminar in Modern Asian History  
HIST 736 - Colloquium in Modern Latin American History  
HIST 737 - Research Seminar in Modern Latin American History  
HIST 739 - Research Seminar in African and Middle Eastern History  
HIST 740B - Historiography (Europe)

HIST 740C - Historiography (Modern Asia)

HIST 740H - Historiography (European Cultural/Intellectual)

HIST 748 - History and Policy

HIST 760 - Advanced Studies in History

### **Thesis – Credits: 6 (Optional)**

HIST 790 - Thesis

#### Degree Requirements

1. Students must complete a minimum of 35 credit hours of approved course work with a minimum GPA of 3.00.
2. A minimum of 16 credit hours of course work must be at the 700-level (excluding Thesis).
3. In addition to the major area of study, the student must complete twelve credits in a minor area.
4. The student's advisor and graduate committee must approve all course work plans. A field outside of history may be presented as part of a student's program. The student is required to have a reading knowledge of a foreign language if that language is necessary to do research in the selected field.
5. In consultation with his/her advisor, a student will organize an advisory committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Students must successfully complete a written examination in their major area of study. This may be taken at the completion of twenty-two credits of course work, and must be taken no later than the completion of twenty-nine credits. Students prepare reading lists of books for each of their two fields within the major area in conjunction with the members of their advisory committee. The lists are based on scholarly works read in coursework, but substantial

additional reading is required. Coursework alone does not constitute preparation for comprehensive exams.

7. No grade below a B- will be accepted for graduate credit, but will be averaged into the student's grade point average. A minimum GPA of 3.00 must be achieved in all graduate work attempted toward the degree.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. If a thesis is completed, the student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. If a thesis is completed, the student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 2 Requirements: European History Track**

Total Credits Required: 35

#### Course Requirements

#### **Required Courses – Credits: 1**

HIST 710 - The Professional Historian

#### **Historiography Courses – Credits: 3**

Complete one of the following courses:

HIST 740B – Historiography (Europe) HIST 740C – Historiography (Modern Asia)

HIST 740D – Historiography (Modern Latin America)

HIST 740G - Historiography (United States - Cultural/Intellectual)

HIST 740H – Historiography (European - Cultural/Intellectual)

#### **Colloquium Courses – Credits: 3**

Complete one of the following courses:



HIST 728 - Colloquium in European Cultural/Intellectual History  
HIST 732 - Colloquium in European History  
HIST 734 - Colloquium in Modern Asian History  
HIST 736 - Colloquium in Modern Latin American History  
HIST 738 - Colloquium in African and Middle Eastern History

#### **Seminar Course – Credits: 4**

Complete one of the following courses:

HIST 729 - Research Seminar in European Cultural/Intellectual History  
HIST 733 - Research Seminar in European History  
HIST 735 - Research Seminar in Modern Asian History  
HIST 737 - Research Seminar in Modern Latin American History  
HIST 739 - Research Seminar in African and Middle Eastern History

#### **Elective Courses – Credits: 6-12**

Students completing a thesis must complete 6 credits of History elective coursework, or other advisor-approved courses. Students who choose not to complete a thesis must complete 12 credits of History elective coursework, or other advisor-approved courses.

#### **Minor Field Courses – Credits: 12**

In consultation with your advisor select a minor field of study and complete 3 credits of colloquium and 9 credits of electives to total 12 credits.

#### **Asian History**

Minor Colloquium Course

HIST 734 - Colloquium in Modern Asian History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 649A - History of Japan to 1800  
HIST 649B - History of Japan since 1800  
HIST 649C - Topics in Japanese History  
HIST 655A - History of China to 1800

HIST 655B - History of China since 1800  
HIST 655C - Topics in Modern China  
HIST 689 - Comparative History  
HIST 698 - Advanced Historical Studies  
HIST 735 - Research Seminar in Modern Asian History  
HIST 740C - Historiography (Modern Asia)  
HIST 760 - Advanced Studies in History

#### **Latin American History**

Minor Colloquium Course

HIST 736 - Colloquium in Modern Latin American History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 670 - History of Mexico  
HIST 671 - Revolution and Reaction in Contemporary Latin America  
HIST 672 - History of Brazil  
HIST 673 - History of the Andean Region  
HIST 674 - Latin American Ethnic Studies  
HIST 675 - Modern Latin American Film  
HIST 676 - The Mexican Revolution  
HIST 679A - West Africa and the Making of the Atlantic World  
HIST 689 - Comparative History  
HIST 695 - Special Topics in Gender and History  
HIST 737 - Research Seminar in Modern Latin American History  
HIST 740D - Historiography (United States - Diplomatic)  
HIST 760 - Advanced Studies in History

#### **Public History**

Minor Colloquium Course

HIST 749 - Colloquium in Public History

Required Elective Course

HIST 750 - Methods for the Study of Public History  
HIST 795 - Internship in Public History

Minor Elective Course

Complete one of the following courses:

HIST 751 - Museums and American Culture  
HIST 752 - Modern Archives: Theory and Methodology  
HIST 754 - Topics in Public History  
HIST 760 - Advanced Studies in History

### **U.S. History**

Minor Colloquium Course

Complete one of the following courses:

HIST 724 - Colloquium in American Cultural/Intellectual History  
HIST 726 - Colloquium in American Western History  
HIST 730 - Colloquium in American History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 601A - American Constitutional and Legal History I  
HIST 601B - American Constitutional and Legal History II  
HIST 604A - American Social History to 1860  
HIST 604B - American Social History, 1860-Present  
HIST 605 - History of the New South  
HIST 606A - The American West to 1849  
HIST 606B - The American West Since 1849  
HIST 607A - United States Foreign Relations I  
HIST 607B - United States Foreign Relations II  
HIST 610A - American Cultural and Intellectual History I  
HIST 610B - American Cultural and Intellectual History II  
HIST 611 - United States: Colonial Period  
HIST 612 - United States: Revolution and the New Republic  
HIST 614A - United States: National Period, 1815-1860  
HIST 614B - United States: Civil War and Reconstruction, 1860-1877  
HIST 615A - United States: Gilded Age, 1877-1900  
HIST 615B - United States: The Progressive Era, 1900-1920  
HIST 616A - Recent America: Era of Franklin D. Roosevelt, 1920-1945  
HIST 616B - Contemporary America: The U.S. Since

1945  
HIST 617A - Nevada and the Far West  
HIST 624 - Role of Religion in American Culture  
HIST 625 - History of Southern Nevada  
HIST 626 - The American West Through Film  
HIST 628 - History of Business in United States History  
HIST 629 - History of American Labor, 1607-Present  
HIST 632A - History of American Women to 1870  
HIST 632B - History of American Women, 1870 to Present  
HIST 633 - African-American History  
HIST 633B - African-American History to 1877  
HIST 633C - African-American History since 1877  
HIST 634 - Role of Cities in American History  
HIST 636 - Nazi Holocaust from the American Perspective  
HIST 637 - Family History  
HIST 638A - American Indian History to 1851  
HIST 638B - Ethnohistory of Native Americans Since 1851  
HIST 638C - Topics in American Indian History  
HIST 640 - Regions in American Indian History  
HIST 641 - American Environmental History  
HIST 643 - Comparative Environmental History  
HIST 643A - Historic Preservation  
HIST 644 - Latinos in the American West  
HIST 648 - Asian American History  
HIST 652A - Popular Culture in Nineteenth-Century America  
HIST 652B - Popular Culture in Twentieth-Century America  
HIST 653 - Women in Politics  
HIST 668 - History of Science  
HIST 682 - Music History I  
HIST 683 - Music History II  
HIST 683A - Urban Destruction and Reconstruction  
HIST 685 - Oral History  
HIST 686 - Military History of the United States  
HIST 687 - Topics in American Studies  
HIST 689 - Comparative History  
HIST 695 - Special Topics in Gender and History  
HIST 724 - Colloquium in American Cultural/Intellectual History  
HIST 725 - Seminar in American Cultural/Intellectual History  
HIST 726 - Colloquium in American Western History  
HIST 730 - Colloquium in American History

HIST 731 - Research Seminar in American History  
HIST 740A - Historiography (United States - Domestic)  
HIST 740E - Historiography (United States - Diplomatic)  
HIST 740F - Historiography (American West)  
HIST 748 - History and Policy  
HIST 760 - Advanced Studies in History

### **World History**

Minor Colloquium Course

HIST 738 - Colloquium in African and Middle Eastern History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750  
HIST 619B - Britain from 1750  
HIST 620 - Topics in Central Europe: 1914 - Present  
HIST 621 - History of Russia to 1825  
HIST 622 - History of Russia Since 1825  
HIST 623A - History of Germany to 1848  
HIST 623B - History of Germany Since 1848  
HIST 634A - European Urban History  
HIST 635A - Early Modern Intellectual History  
HIST 635B - Modern Intellectual History  
HIST 635C - Topics in European Cultural and Intellectual History  
HIST 645 - Cultural History of Modern Russia  
HIST 646 - History of the Russian Film  
HIST 647 - Revolutionary Russia 1905-1921  
HIST 649A - History of Japan to 1800  
HIST 649B - History of Japan since 1800  
HIST 649C - Topics in Japanese History  
HIST 655A - History of China to 1800  
HIST 655B - History of China since 1800  
HIST 655C - Topics in Modern China  
HIST 656 - Topics in Ancient History  
HIST 657 - Ancient Greek Civilization  
HIST 658 - Roman Civilization  
HIST 659 - Medieval Civilization  
HIST 659A - Topics in Medieval History  
HIST 660A - The Renaissance  
HIST 660B - The Reformation  
HIST 661 - Europe in the 18th Century  
HIST 661B - Early Modern Europe: 1550-1789

HIST 662 - The French Revolution and Napoleon  
HIST 663 - Europe: 1815-1914  
HIST 664 - Europe: 1914 to the Present  
HIST 666 - European Diplomatic History, 1815-Present  
HIST 668 - History of Science  
HIST 670 - History of Mexico  
HIST 671 - Revolution and Reaction in Contemporary Latin America  
HIST 672 - History of Brazil  
HIST 673 - History of the Andean Region  
HIST 674 - Latin American Ethnic Studies  
HIST 675 - Modern Latin American Film  
HIST 676 - The Mexican Revolution  
HIST 678A - Islamic and Middle Eastern History to 1750  
HIST 678B - Islamic and Middle Eastern History since 1750  
HIST 679 - History of the British Empire  
HIST 679A - West Africa and the Making of the Atlantic World  
HIST 682 - Music History I  
HIST 683 - Music History II  
HIST 689 - Comparative History  
HIST 691A - Women in the Ancient World  
HIST 691B - Women in Medieval Culture and Society  
HIST 692B - Woman's Role in European History: 1750-1970  
HIST 692A - Women In Early Modern Europe  
HIST 695 - Special Topics in Gender and History  
HIST 696 - Philosophy of History  
HIST 728 - Colloquium in European Cultural/Intellectual History  
HIST 729 - Research Seminar in European Cultural/Intellectual History  
HIST 734 - Colloquium in Modern Asian History  
HIST 735 - Research Seminar in Modern Asian History  
HIST 736 - Colloquium in Modern Latin American History  
HIST 737 - Research Seminar in Modern Latin American History  
HIST 739 - Research Seminar in African and Middle Eastern History  
HIST 740B - Historiography (Europe)  
HIST 740C - Historiography (Modern Asia)  
HIST 740H - Historiography (European Cultural/Intellectual)

HIST 748 - History and Policy  
HIST 760 - Advanced Studies in History

**Thesis – Credits: 6 (Optional)**

HIST 790 - Thesis

**Degree Requirements**

1. Students must complete a minimum of 35 credit hours of approved course work with a minimum GPA of 3.00.
2. A minimum of 16 credit hours of course work must be at the 700-level (excluding Thesis).
3. In addition to the major area of study, the student must complete twelve credits in a minor area.
4. The student's advisor and graduate committee must approve all course work plans. A field outside of history may be presented as part of a student's program. The student is required to have a reading knowledge of a foreign language if that language is necessary to do research in the selected field.
5. In consultation with his/her advisor, a student will organize an advisory committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Students must successfully complete a written examination in their major area of study. This may be taken at the completion of twenty-two credits of course work, and must be taken no later than the completion of twenty-nine credits. Students prepare reading lists of books for each of their two fields within the major area in conjunction with the members of their advisory committee. The lists are based on scholarly works read in coursework, but substantial additional reading is required. Coursework alone does not constitute preparation for comprehensive exams.

7. No grade below a B- will be accepted for graduate credit, but will be averaged into the student's grade point average. A minimum GPA of 3.00 must be achieved in all graduate work attempted toward the degree.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. If a thesis is completed, the student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. If a thesis is completed, the student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

**Subplan 3 Requirements: Asian History Track**

Total Credits Required: 35

**Course Requirements**

**Required Courses – Credits: 1**

HIST 710 - The Professional Historian

**Historiography Courses – Credits: 3**

Complete one of the following courses:

HIST 740C – Historiography (Modern Asia)  
HIST 740E - Historiography (United States - Diplomatic)

**Colloquium Courses – Credits: 3**

Complete one of the following courses:

HIST 734 - Colloquium in Modern Asian History

**Seminar Course – Credits: 4**

Complete one of the following courses:

HIST 735 - Research Seminar in Modern Asian History

### **Elective Courses – Credits: 6-12**

Students completing a thesis must complete 6 credits of History elective coursework, or other advisor-approved courses. Students who choose not to complete a thesis must complete 12 credits of History elective coursework, or other advisor-approved courses.

### **Minor Field Courses – Credits: 12**

In consultation with your advisor select a minor field of study and complete 3 credits of colloquium and 9 credits of electives to total 12 credits.

#### **European History**

Minor Colloquium Course

Complete one of the following courses:

HIST 728 - Colloquium in European

Cultural/Intellectual History

HIST 732 - Colloquium in European History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750

HIST 619B - Britain from 1750

HIST 620 - Topics in Central Europe: 1914 - Present

HIST 621 - History of Russia to 1825

HIST 622 - History of Russia Since 1825

HIST 623A - History of Germany to 1848

HIST 623B - History of Germany Since 1848

HIST 634A - European Urban History

HIST 635A - Early Modern Intellectual History

HIST 635B - Modern Intellectual History

HIST 635C - Topics in European Cultural and Intellectual History

HIST 645 - Cultural History of Modern Russia

HIST 646 - History of the Russian Film

HIST 647 - Revolutionary Russia 1905-1921

HIST 656 - Topics in Ancient History

HIST 657 - Ancient Greek Civilization

HIST 658 - Roman Civilization

HIST 659 - Medieval Civilization

HIST 659A - Topics in Medieval History

HIST 660A - The Renaissance

HIST 660B - The Reformation

HIST 661 - Europe in the 18th Century

HIST 661B - Early Modern Europe: 1550-1789

HIST 662 - The French Revolution and Napoleon

HIST 663 - Europe: 1815-1914

HIST 664 - Europe: 1914 to the Present

HIST 666 - European Diplomatic History, 1815-Present

HIST 668 - History of Science

HIST 679 - History of the British Empire

HIST 679A - West Africa and the Making of the Atlantic World

HIST 682 - Music History I

HIST 683 - Music History II

HIST 689 - Comparative History

HIST 691A - Women in the Ancient World

HIST 691B - Women in Medieval Culture and Society

HIST 692B - Woman's Role in European History:

1750-1970  
HIST 692B - Woman's Role in European History: 1750-1970

HIST 692A - Women In Early Modern Europe  
HIST 692A - Women In Early Modern Europe

HIST 695 - Special Topics in Gender and History

HIST 696 - Philosophy of History

HIST 728 - Colloquium in European

Cultural/Intellectual History

HIST 729 - Research Seminar in European

Cultural/Intellectual History

HIST 732 - Colloquium in European History

HIST 733 - Research Seminar in European History

HIST 760 - Advanced Studies in History

HIST 740H - Historiography (European -

Cultural/Intellectual)

HIST 737 - Research Seminar in Modern Latin

American History

HIST 760 - Advanced Studies in History

HIST 760 - Advanced Studies in History

#### **Latin American History**

Minor Colloquium Course

HIST 736 - Colloquium in Modern Latin American History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 670 - History of Mexico

HIST 671 - Revolution and Reaction in

Contemporary Latin America  
HIST 672 - History of Brazil  
HIST 673 - History of the Andean Region  
HIST 674 - Latin American Ethnic Studies  
HIST 675 - Modern Latin American Film  
HIST 676 - The Mexican Revolution  
HIST 679A - West Africa and the Making of the Atlantic World  
HIST 689 - Comparative History  
HIST 695 - Special Topics in Gender and History  
HIST 737 - Research Seminar in Modern Latin American History  
HIST 740D - Historiography (Modern Latin America)  
HIST 760 - Advanced Studies in History

### **Public History**

Minor Colloquium Course

HIST 749 - Colloquium in Public History

Required Elective Course

HIST 750 - Methods for the Study of Public History

HIST 795 - Internship in Public History

Minor Elective Course

Complete one of the following courses:

HIST 751 - Museums and American Culture

HIST 752 - Modern Archives: Theory and Methodology

HIST 754 - Topics in Public History

HIST 760 - Advanced Studies in History

### **U.S. History**

Minor Colloquium Course

Complete one of the following courses:

HIST 724 - Colloquium in American Cultural/Intellectual History

HIST 726 - Colloquium in American Western History

HIST 730 - Colloquium in American History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 601A - American Constitutional and Legal History I

HIST 601B - American Constitutional and Legal History II

HIST 604A - American Social History to 1860

HIST 604B - American Social History, 1860-Present

HIST 605 - History of the New South

HIST 606A - The American West to 1849

HIST 606B - The American West Since 1849

HIST 607A - United States Foreign Relations I

HIST 607B - United States Foreign Relations II

HIST 610A - American Cultural and Intellectual History I

HIST 610B - American Cultural and Intellectual History II

HIST 611 - United States: Colonial Period

HIST 612 - United States: Revolution and the New Republic

HIST 614A - United States: National Period, 1815-1860

HIST 614B - United States: Civil War and Reconstruction, 1860-1877

HIST 615A - United States: Gilded Age, 1877-1900

HIST 615B - United States: The Progressive Era, 1900-1920

HIST 616A - Recent America: Era of Franklin D. Roosevelt, 1920-1945

HIST 616B - Contemporary America: The U.S. Since 1945

HIST 617A - Nevada and the Far West

HIST 624 - Role of Religion in American Culture

HIST 625 - History of Southern Nevada

HIST 626 - The American West Through Film

HIST 628 - History of Business in United States History

HIST 629 - History of American Labor, 1607-Present

HIST 632A - History of American Women to 1870

HIST 632B - History of American Women, 1870 to Present

HIST 633 - African-American History

HIST 633B - African-American History to 1877

HIST 633C - African-American History since 1877

HIST 634 - Role of Cities in American History

HIST 636 - Nazi Holocaust from the American Perspective

HIST 637 - Family History

HIST 638A - American Indian History to 1851

HIST 638B - Ethnohistory of Native Americans Since 1851

HIST 638C - Topics in American Indian History  
 HIST 640 - Regions in American Indian History  
 HIST 641 - American Environmental History  
 HIST 643 - Comparative Environmental History  
 HIST 643A - Historic Preservation  
 HIST 644 - Latinos in the American West  
 HIST 648 - Asian American History  
 HIST 652A - Popular Culture in Nineteenth-Century America  
 HIST 652B - Popular Culture in Twentieth-Century America  
 HIST 653 - Women in Politics  
 HIST 668 - History of Science  
 HIST 682 - Music History I  
 HIST 683 - Music History II  
 HIST 683A - Urban Destruction and Reconstruction  
 HIST 685 - Oral History  
 HIST 686 - Military History of the United States  
 HIST 687 - Topics in American Studies  
 HIST 689 - Comparative History  
 HIST 695 - Special Topics in Gender and History  
 HIST 724 - Colloquium in American Cultural/Intellectual History  
 HIST 725 - Seminar in American Cultural/Intellectual History  
 HIST 726 - Colloquium in American Western History  
 HIST 730 - Colloquium in American History  
 HIST 731 - Research Seminar in American History  
 HIST 740A - Historiography (United States - Domestic)  
 HIST 740E - Historiography (United States - Diplomatic)  
 HIST 740F - Historiography (American West)  
 HIST 748 - History and Policy  
 HIST 760 - Advanced Studies in History

### **World History**

Minor Colloquium Course

HIST 738 - Colloquium in African and Middle Eastern History

Minor Elective Courses

Complete 9 credits from the following list of courses:

HIST 619A - Britain to 1750  
 HIST 619B - Britain from 1750

HIST 620 - Topics in Central Europe: 1914 - Present  
 HIST 621 - History of Russia to 1825  
 HIST 622 - History of Russia Since 1825  
 HIST 623A - History of Germany to 1848  
 HIST 623B - History of Germany Since 1848  
 HIST 634A - European Urban History  
 HIST 635A - Early Modern Intellectual History  
 HIST 635B - Modern Intellectual History  
 HIST 635C - Topics in European Cultural and Intellectual History  
 HIST 645 - Cultural History of Modern Russia  
 HIST 646 - History of the Russian Film  
 HIST 647 - Revolutionary Russia 1905-1921  
 HIST 649A - History of Japan to 1800  
 HIST 649B - History of Japan since 1800  
 HIST 649C - Topics in Japanese History  
 HIST 655A - History of China to 1800  
 HIST 655B - History of China since 1800  
 HIST 655C - Topics in Modern China  
 HIST 656 - Topics in Ancient History  
 HIST 657 - Ancient Greek Civilization  
 HIST 658 - Roman Civilization  
 HIST 659 - Medieval Civilization  
 HIST 659A - Topics in Medieval History  
 HIST 660A - The Renaissance  
 HIST 660B - The Reformation  
 HIST 661 - Europe in the 18th Century  
 HIST 661B - Early Modern Europe: 1550-1789  
 HIST 662 - The French Revolution and Napoleon  
 HIST 663 - Europe: 1815-1914  
 HIST 664 - Europe: 1914 to the Present  
 HIST 666 - European Diplomatic History, 1815-Present  
 HIST 668 - History of Science  
 HIST 670 - History of Mexico  
 HIST 671 - Revolution and Reaction in Contemporary Latin America  
 HIST 672 - History of Brazil  
 HIST 673 - History of the Andean Region  
 HIST 674 - Latin American Ethnic Studies  
 HIST 675 - Modern Latin American Film  
 HIST 676 - The Mexican Revolution  
 HIST 678A - Islamic and Middle Eastern History to 1750  
 HIST 678B - Islamic and Middle Eastern History since 1750  
 HIST 679 - History of the British Empire  
 HIST 679A - West Africa and the Making of the Atlantic World

HIST 682 - Music History I  
 HIST 683 - Music History II  
 HIST 689 - Comparative History  
 HIST 691A - Women in the Ancient World  
 HIST 691B - Women in Medieval Culture and Society  
 HIST 692B - Woman's Role in European History: 1750-1970  
 HIST 692B - Woman's Role in European History: 1750-1970  
 HIST 692A - Women In Early Modern Europe  
 HIST 692A - Women In Early Modern Europe  
 HIST 695 - Special Topics in Gender and History  
 HIST 696 - Philosophy of History  
 HIST 728 - Colloquium in European Cultural/Intellectual History  
 HIST 729 - Research Seminar in European Cultural/Intellectual History  
 HIST 734 - Colloquium in Modern Asian History  
 HIST 735 - Research Seminar in Modern Asian History  
 HIST 736 - Colloquium in Modern Latin American History  
 HIST 737 - Research Seminar in Modern Latin American History  
 HIST 739 - Research Seminar in African and Middle Eastern History  
 HIST 740B - Historiography (Europe)  
 HIST 740C - Historiography (Modern Asia)  
 HIST 740H - Historiography (European Cultural/Intellectual)  
 HIST 748 - History and Policy  
 HIST 760 - Advanced Studies in History

**Thesis – Credits: 6 (Optional)**

HIST 790 - Thesis

**Degree Requirements**

1. Students must complete a minimum of 35 credit hours of approved course work with a minimum GPA of 3.00.
2. A minimum of 16 credit hours of course work must be at the 700-level (excluding Thesis).
3. In addition to the major area of study, the student must complete twelve credits in a minor area.
4. The student's advisor and graduate committee must approve all course work

plans. A field outside of history may be presented as part of a student's program. The student is required to have a reading knowledge of a foreign language if that language is necessary to do research in the selected field.

5. In consultation with his/her advisor, a student will organize an advisory committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. Students must successfully complete a written examination in their major area of study. This may be taken at the completion of twenty-two credits of course work, and must be taken no later than the completion of twenty-nine credits. Students prepare reading lists of books for each of their two fields within the major area in conjunction with the members of their advisory committee. The lists are based on scholarly works read in coursework, but substantial additional reading is required. Coursework alone does not constitute preparation for comprehensive exams.
7. No grade below a B- will be accepted for graduate credit, but will be averaged into the student's grade point average. A minimum GPA of 3.00 must be achieved in all graduate work attempted toward the degree.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. If a thesis is completed, the student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. If a thesis is completed, the student must submit his/her approved, properly formatted hard-copy document to the Graduate



College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 4 Requirements: Teaching History Track**

Total Credits Required: 35

Course Requirements

#### **Historical Content Required Courses – Credits: 4**

HIST 710 - The Professional Historian  
HIST 740 - Historiography

#### **Historical Content Colloquium Course – Credits: 3**

Complete one of the following courses:

HIST 724 - Colloquium in American Cultural/Intellectual History  
HIST 726 - Colloquium in American Western History  
HIST 728 - Colloquium in European Cultural/Intellectual History  
HIST 730 - Colloquium in American History  
HIST 732 - Colloquium in European History  
HIST 734 - Colloquium in Modern Asian History  
HIST 736 - Colloquium in Modern Latin American History  
HIST 738 - Colloquium in African and Middle Eastern History

#### **Historical Content Elective Courses – Credits: 6**

Complete 6 credits of History electives.

#### **Curriculum Materials Colloquium Course – Credits: 3**

Complete one of the following courses:

HIST 724 - Colloquium in American Cultural/Intellectual History  
HIST 726 - Colloquium in American Western History  
HIST 728 - Colloquium in European Cultural/Intellectual History  
HIST 730 - Colloquium in American History  
HIST 732 - Colloquium in European History  
HIST 734 - Colloquium in Modern Asian History

HIST 736 - Colloquium in Modern Latin American History  
HIST 738 - Colloquium in African and Middle Eastern History  
HIST 749 - Colloquium in Public History

#### **Curriculum Materials Elective Courses – Credits: 7**

Complete seven credits of advisor-approved Public History courses (at least one of which must be at the 700-level).

#### **Educational Methods Foundations Course – Credits: 3**

Complete one of the following courses:

CIG 660 - Multicultural Education  
CIS 617 - Topics Secondary Education  
CIL 610 - Content Area Literacy

#### **Educational Methods Development Course – Credits: 3**

Complete one of the following courses:

CIS 640 - Topics Secondary Social Studies Education  
CIS 644 - Instruction Secondary Social Studies Education  
CIS 649 - Curriculum Development Secondary Social Studies Education  
CIG 692 - Curriculum Evaluation in Education

#### **Educational Methods Technology Course – Credits: 3**

Complete one of the following courses:

CIT 602 - Technology Applications Secondary Curriculum  
CIT 607 - Technology as Educational Mindtools  
CIT 609 - Internet for Learning  
CIT 608 - Integrating Technology in Teaching and Learning

#### **Capstone Course – Credits: 3**

HIST 790A - Materials for Teaching History

Degree Requirements

1. This program is designed for certified teachers. It is not a certification program.
2. Students must complete a minimum of 35 credit hours of approved course work with a minimum GPA of 3.00.
3. A minimum of 16 credit hours of course work must be at the 700-level.
4. Coursework is divided into three required fields:
  - a. Historical Content
  - b. Curriculum Materials
  - c. Educational Content
5. The student's advisor and graduate committee must approve all course work plans. A field outside of history may be presented as part of a student's program. The student is required to have a reading knowledge of a foreign language if that language is necessary to do research in the selected field.
6. Matriculants with extensive background in one of the sub-fields may, with the permission of their advisor in the College of Education, take an additional course from one of the two other sub-fields in place of a course in the field of existing expertise. Matriculants with an extensive background in two of the sub-fields may, with permission of the student's advisor in Education, take 3 credits related to their program of study in another field outside of Education.
7. Students must successfully complete a written examination in Teacher's Track: Historical Content. This may be taken at the completion of twenty-five credits, and must be taken no later than the completion of twenty-nine credits. The examination consists of two parts; each part contains two essay questions. Students write on one essay in each part of the exam (total of two essays, two hours for each; four hours total). Questions are written by the student's committee member/s in the Historical Content field, and each part of the exam is based on a list of books prepared in conjunction with the members of the advisory committee.
8. Students must successfully complete a written examination in Historical Content. This may be taken at the completion of 25 credits, and must be taken no later than the completion of 35 credits. The examination consists of two parts; each part contains two essay questions. Students write on one essay in each part of the exam (total of two essays, two hours for each; four hours total). Questions are written by the student's committee member/s in the Historical Content field, and each part of the exam is based on a list of books prepared in conjunction with the members of the advisory committee.
9. No grade below a B- will be accepted for graduate credit, but will be averaged into the student's grade point average. A minimum GPA of 3.00 must be achieved in all graduate work attempted toward the degree.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Successfully complete a Written Final Examination.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

## History Courses

### HIST 601A - American Constitutional and Legal History I

Credits 3

Analysis and interpretation of the life of the law in America from the seventeenth century to modern times. Though designed to complement one another, each half of this course may be taken independently.

**Notes** This course is crosslisted with HIST 401.

Credit at the 600-level requires additional work.

### HIST 601B - American Constitutional and Legal History II

Credits 3

Analysis and interpretation of the life of the law in America from the seventeenth century to modern times. Though designed to complement one another, each half of this course may be taken independently.

**Notes** This course is crosslisted with HIST 402.

Credit at the 600-level requires additional work.

### HIST 604A - American Social History to 1860

Credits 3

Analysis of demography, social structure and mobility factors, and societal institutions of the United States during its formative era. Special attention given to social issues and humanitarian reformism, and to sectional tensions arising from the antislavery movement. Chronological coverage extends from colonial period to Civil War, with emphasis on 1760-1850.

**Notes** This course is crosslisted with HIST 404A.

Credit at the 600-level requires additional work.

### HIST 604B - American Social History, 1860-Present

Credits 3

Examination of U.S. social development since the Civil War, focusing upon problems arising from industrialism, immigration, and urbanism. Analysis of the responsive emergence of the 'welfare state' in the Progressive, New Deal, and post World War II eras, supplemented by study of current issues of racism, sexism, and contemporary counterculture.

**Notes** This course is crosslisted with HIST 404B.

Credit at the 600-level requires additional work.

### HIST 605 - History of the New South

Credits 3

Analysis of the post-1865 American South and its regional distinctiveness, with particular emphasis on the rise and decline of one-party politics, economic development from Civil War devastation to the Sunbelt, race relations and the civil rights movement, and the South's influence on U.S. foreign relations.

**Notes** This course is crosslisted with HIST 405.

Credit at the 600-level requires additional work.

### HIST 606A - The American West to 1849

Credits 3

Narrative and interpretive study of the development of the West by imperial European powers and Americans to the California Gold Rush. Emphasis on the westward movement and its role in American history.

**Notes** This course is crosslisted with HIST 406A.

Credit at the 600-level requires additional work.

### HIST 606B - The American West Since 1849

Credits 3

Narrative and interpretive study of the economic, political, and social developments in the trans-Mississippi West from the California Gold Rush to the present.

**Notes** This course is crosslisted with HIST 406B.

Credit at the 600-level requires additional work.

### HIST 607A - United States Foreign Relations I

Credits 3

Analysis of the domestic origins, implementation, and international consequences of U.S. foreign relations from 1920 to the present. Includes diplomatic, economic, and cultural relations.

**Notes** This course is crosslisted with HIST 407A.

Credit at the 600-level requires additional work.

### HIST 607B - United States Foreign Relations II

Credits 3

Analysis of the domestic origins, implementation, and international consequences of U.S. foreign relations from 1920 to the present. Includes diplomatic, economic, and cultural relations.

**Notes** This course is crosslisted with HIST 407B.

Credit at the 600-level requires additional work.

### HIST 610A - American Cultural and Intellectual History I

Credits 3

Developments in cultural, intellectual, and religious history from European contact to the Civil War.

**Notes** This course is crosslisted with HIST 410A.

Credit at the 600-level requires additional work.

HIST 610B - American Cultural and Intellectual History II

Credits 3

Developments in cultural, intellectual, and religious history from the Civil War to the present.

**Notes** This course is crosslisted with HIST 410B.

Credit at the 600-level requires additional work.

HIST 611 - United States: Colonial Period

Credits 3

Origins of the North American colonies, development of colonial society, culture, and institutions; background factors involved in the American Revolution.

**Notes** This course is crosslisted with HIST 411.

Credit at the 600-level requires additional work.

HIST 612 - United States: Revolution and the New Republic

Credits 3

Examination of the course and impact of the American Revolution; the adoption of the Constitution; and the political, diplomatic, and economic developments during the early national period.

**Notes** This course is crosslisted with HIST 412.

Credit at the 600-level requires additional work.

HIST 614A - United States: National Period, 1815-1860

Credits 3

Era of Good Feelings; the Age of Jackson; the problems of expansion; the growing controversy over slavery to the secession of South Carolina in December 1860.

**Notes** This course is crosslisted with HIST 414A.

Credit at the 600-level requires additional work.

HIST 614B - United States: Civil War and Reconstruction, 1860-1877

Credits 3

Era of the Civil War from secession in 1860 to the close of hostilities in 1865; presidential and congressional Reconstruction until the close of this

era in 1877.

**Notes** This course is crosslisted with HIST 414B.

Credit at the 600-level requires additional work.

HIST 615A - United States: Gilded Age, 1877-1900

Credits 3

Analysis and interpretation of the impact of industrialization, immigration and urbanization upon the American experiment in republicanism. Examines how diverse Americans, including ex-slaves, farmers, feminists, "new" immigrants, Plains Indians, radicals, soldiers, statesmen, industrialists and laborers responded to these unsettling conditions and helped to usher in the modern age.

**Notes** This course is crosslisted with HIST 415A.

Credit at the 600-level requires additional work.

HIST 615B - United States: The Progressive Era, 1900-1920

Credits 3

Analysis and interpretation of the dramatic social, cultural, and political changes that occurred in the United States between 1900 and 1920 in the period known as the Progressive Era. Examines how Americans fashioned responses to the challenges posed by the modernization and diversification of their society.

**Notes** This course is crosslisted with HIST 415B.

Credit at the 600-level requires additional work.

HIST 616A - Recent America: Era of Franklin D. Roosevelt, 1920-1945

Credits 3

Examination of social, economic, and political trends in the 1920s and of the transition from inflated prosperity to the Great Depression of the 1930s. Special attention to F.D.R.'s presidential role, to the New Deal and concurrent domestic problems, and to foreign policy issues. Coverage includes U.S. entrance and role in World War II.

**Notes** This course is crosslisted with HIST 416A.

Credit at the 600-level requires additional work.

HIST 616B - Contemporary America: The U.S. Since 1945

Credits 3

Cold War abroad and readjustments bringing affluence and anxieties at home. Special focus upon the Korean War, McCarthyism, Kennedy's New Frontier and Johnson's Great Society, "limited

warfare" in Cuba and Vietnam, and the Nixon Administration. Social and political tensions of the '60s and '70s also examined.

**Notes** This course is crosslisted with HIST 416B. Credit at the 600-level requires additional work.

#### HIST 617A - Nevada and the Far West

Credits 3

Study of the far western region, with emphasis on Nevada history. Includes research projects.

**Notes** This course is crosslisted with HIST 417A. Credit at the 600-level requires additional work.

#### HIST 619A - Britain to 1750

Credits 3

Analysis and interpretation of the economy, society, politics and culture of the British isles from earliest settlement to 1750.

**Notes** This course is crosslisted with HIST 419A. Credit at the 600 level requires additional work.

#### HIST 619B - Britain from 1750

Credits 3

Analysis and interpretation of the economy, society, politics and culture of the British isles and British empire from 1750 to present.

**Notes** This course is crosslisted with HIST 419B. Credit at the 600 level requires additional work.

#### HIST 620 - Topics in Central Europe: 1914 - Present

Credits 3

Topics on the political and social change in Central Europe from the outbreak of World War I to the present. Topics vary.

#### HIST 621 - History of Russia to 1825

Credits 3

Examination of the formation of Kievan Rus, the Mongol invasion, the emergence of Muscovite autocracy, religious schism, westernization in the seventeenth century and under Peter I, the establishment of serfdom, the problem of Empire, Catherine II and Alexander I.

**Notes** This course is crosslisted with HIST 421. Credit at the 600-level requires additional work.

#### HIST 622 - History of Russia Since 1825

Credits 3

Analysis of conservative modernization under Nicholas I, the birth of the intelligentsia, the Great

Reforms, industrialization, revolution, the establishment of the Soviet State, stagnation under Brezhnev, Perestroika under Gorbachev, and the dissolution of the USSR.

**Notes** This course is crosslisted with HIST 422. Credit at the 600-level requires additional work.

#### HIST 623A - History of Germany to 1848

Credits 3

Analysis and interpretation of the institutional, social, economic, political and cultural development of the German states.

**Notes** This course is crosslisted with HIST 423A. Credit at the 600-level requires additional work.

#### HIST 623B - History of Germany Since 1848

Credits 3

Analysis and interpretation of the institutional, social, economic, political and cultural development of the Germany to the present.

**Notes** This course is crosslisted with HIST 423B. Credit at the 600-level requires additional work.

#### HIST 624 - Role of Religion in American Culture

Credits 3

Study of the relationship between religion and secular culture in the American experience from the colonial era to the present.

**Notes** This course is crosslisted with HIST 424. Credit at the 600-level requires additional work.

#### HIST 625 - History of Southern Nevada

Credits 3

History of the Nevada counties of Nye, Esmeralda, Mineral, Lincoln, and Clark since the arrival of the European. The case of southern Nevada used to illustrate techniques for the study of local history in general.

**Notes** This course is crosslisted with HIST 425. Credit at the 600-level requires additional work.

#### HIST 626 - The American West Through Film

Credits 3

Analyzes the relationships between the history of the American West, movie westerns, and the cultural climate of the United States after 1945. Six credits of history.

**Notes** This course is crosslisted with HIST 426. Credit at the 600-level requires additional work.

HIST 628 - History of Business in United States  
History

Credits 3

Examines the growth and influence of business upon American history from colonial times to the present. Includes the role played by business groups in the American Revolution, adoption of the U.S. Constitution, westward expansion, the Civil War, World War II, and the development of major American cities.

**Notes** This course is crosslisted with HIST 428. Credit at the 600-level requires additional work.

HIST 629 - History of American Labor, 1607-Present  
Credits 3

Analyzes the history of American working men and women from the founding of the American colonies to the present. Emphasis placed on significant events, institutions, and the ordinary lives of laborers themselves, all of which are viewed against the backdrop of an evolving capitalist economic system.

**Notes** This course is crosslisted with HIST 429. Credit at the 600-level requires additional work.

HIST 632A - History of American Women to 1870  
Credits 3

Examines the history of women in the United States from the period of European contact to Reconstruction. Examines women's changing roles in the family, work force, politics, and social movements. Examines the historical experience of European colonists, Native Americans, African Americans, and immigrants.

**Same as** WMST 432A

**Notes** This course is crosslisted with HIST 432A. Credit at the 600-level requires additional work.

HIST 632B - History of American Women, 1870 to Present

Credits 3

Women's relationship to the economy and to political movements; changing ideals of womanhood; the demographic and sexual revolutions transforming family life and gender roles; and class, race, ethnic, and regional variations in female experience.

**Same as** WMST 432B

**Notes** This course is crosslisted with HIST 432B. Credit at the 600-level requires additional work.

HIST 633 - African-American History  
Credits 3

Topical approach to Black history that seeks to illuminate grand themes such as DuBois' notion of "double-consciousness," the dilemma of being both Black and American. Explores in depth such topics as religion, family, slavery, urban life, education, labor, culture, and politics.

**Notes** May be repeated to a maximum of 9 credits. This course is crosslisted with HIST 433. Credit at the 600-level requires additional work.

HIST 633B - African-American History to 1877  
Credits 3

An examination of African-American history to 1877 that considers roles of free and enslaved blacks in the shaping of America's social, cultural, economic, and political developments. Themes include the slave trade, creation of race and slavery, gender, and African influences on both slave and American culture.

**Notes** This course is crosslisted with HIST 433B. Credit at the 600-level requires additional work.

HIST 633C - African-American History since 1877  
Credits 3

Examination of the emergence of African-Americans from the aftermath of the Civil War to present. Themes include the restrictions imposed by Jim Crow, segregation beyond the South, the Civil Rights movement, inner city rebellions and the new Black cultural movement.

**Notes** This course is crosslisted with HIST 433C. Credit at the 600-level requires additional work.

HIST 634 - Role of Cities in American History  
Credits 3

Growth of cities from colonial times to the present. Topics include urbanization, suburbanization, transportation innovations, crime, housing, and racial conflicts. Special emphasis given to the role of the city in American history.

**Notes** This course is crosslisted with HIST 434. Credit at the 600-level requires additional work.

HIST 634A - European Urban History  
Credits 3

Investigation of the radical impact of industrial modernity upon the European metropolis from the eighteenth century onwards. Focuses on cultural,

social, technological, and architectural developments in the major European cities, such as London, Paris, Vienna, and Berlin.

**Notes** This course is crosslisted with HIST 434A. Credit at the 600-level requires additional work.

#### HIST 634B - Great Cities in History

Credits 3

Study of a selected city or cities to be determined by the instructor.

**Notes** May be repeated to a maximum of six credits. This course is crosslisted with HIST 434B. Credit at the 600-level requires additional work.

#### HIST 635A - Early Modern Intellectual History

Credits 3

Renaissance to the Enlightenment, 1450-1775, including humanism, republicanism, Protestantism, science, liberalism, and early economic thinking.

**Notes** This course is crosslisted with HIST 435A. Credit at the 600-level requires additional work.

#### HIST 635B - Modern Intellectual History

Credits 3

Analysis and interpretation of European attitudes and ideas since the Enlightenment, 1775-present, including Idealism, Marxism, cultural individualism, psychoanalysis, existentialism, and structuralism.

**Notes** This course is crosslisted with HIST 435B. Credit at the 600-level requires additional work.

#### HIST 635C - Topics in European Cultural and Intellectual History

Credits 3

In-depth study of specific aspects of early modern and modern European cultural and intellectual history.

**Same as** HIST 435C

#### HIST 636 - Nazi Holocaust from the American Perspective

Credits 0

Genocidal aspects of the Nazi Era in Germany. Special emphases on why Americans have become so "Holocaust conscious," and on the impact of the Holocaust on international Jewry.

**Notes** This course is crosslisted with HIST 436. Credit at the 600-level requires additional work.

#### HIST 637 - Family History

Credits 3

Study of how world wars, the Great Depression, and other historical events have affected American families and communities in the twentieth century.

**Notes** This course is crosslisted with HIST 437. Credit at the 600-level requires additional work.

#### HIST 638A - American Indian History to 1851

Credits 3

Examination of Indian peoples from early times to 1851. Includes Indian-white relations, U.S. Indian policy, concentration, assimilation, removal, and resistance to westward expansion.

**Notes** This course is crosslisted with HIST 438A. Credit at the 600-level requires additional work.

#### HIST 638B - Ethnohistory of Native Americans Since 1851

Credits 3

Examination of Indian peoples from 1851 to the present. Focuses on impact of Indian culture on Indian-white relations, allotment, reservation life, Indian Reorganization Act, Termination, struggle for civil rights, self-determination, and economic development (gaming).

**Notes** This course is crosslisted with HIST 438B. Credit at the 600-level requires additional work.

#### HIST 638C - Topics in American Indian History

Credits 3

In-depth study of specific aspects of American Indian History.

**Notes** This course is crosslisted with HIST 438C. Credit at the 600-level requires additional work.

**Prerequisites** Six credits of history.

#### HIST 640 - Regions in American Indian History

Credits 3

Examination of the history and culture of Indian peoples in one or more of the following regions: Southwest, Pacific Northwest, Great Basin, Great Plains, Northeast, and Southeast.

**Notes** This course is crosslisted with HIST 440. Credit at the 600-level requires additional work.

#### HIST 641 - American Environmental History

Credits 3

Explores the relationship between human beings and the physical environment on the North American

continent. Examines the way in which different cultural groups have used and transformed the continent. Examines the ebb and flow of consciousness about the environment from its roots in the nineteenth century to the rise of environmentalism in the twentieth century.

**Notes** This course is crosslisted with HIST 441. Credit at the 600-level requires additional work.

#### HIST 643 - Comparative Environmental History Credits 3

Provides a comparative context for the study of global environmental history. Analyzes different societies, from the Sumerians to modern cultures, to discern their different uses of land, water, and other natural resources, as well as the ways in which social institutions applied to the physical environment over the ages.

**Notes** This course is crosslisted with HIST 443. Credit at the 600-level requires additional work.

#### HIST 643A - Historic Preservation Credits 3

Examines the history and theory of the historic preservation movement in the United States, the legal basis for preservation of the built environment, and the practical methodology of historic preservation.

**Notes** This course is crosslisted with HIST 443A. Credit at the 600-level requires additional work.

#### HIST 644 - Latinos in the American West Credits 3

Analysis of the history of Latinos beginning with the Spanish exploration of the New World, the resulting cultural encounters and emergence of a mixed frontier populace, and the present social, economic, and cultural roles of Latinos in American society.

**Notes** This course is crosslisted with HIST 444. Credit at the 600-level requires additional work.

#### HIST 645 - Cultural History of Modern Russia Credits 3

Social conscience in Russian literature from Pushkin to Solzhenitsyn, populist realism in art and politics, cultural diversity of the Silver Age, and the effects of Socialist Realism.

**Notes** This course is crosslisted with HIST 445. Credit at the 600-level requires additional work.

#### HIST 646 - History of the Russian Film Credits 3

Soviet cinema from the revolutionary films and pathbreaking theories of the 1920s (Eisenstein, Pudovkin, Vertov, Dovzhenko, and Kuleshov), through the constrictions of Socialist Realism, to the revival of a proud tradition in the decades since Stalin. Emphasis on Russian cultural traditions, contemporary historical context, and the demands of ideology.

**Same as** FIS 446

**Notes** This course is crosslisted with HIST 446. Credit at the 600-level requires additional work.

#### HIST 647 - Revolutionary Russia 1905-1921 Credits 3

Detailed analysis of the crisis of autocracy, the First World War, the Bolshevik seizures of power, and the early years of the proletarian dictatorship. Examines the experiment in parliamentary politics, the emerging nationalist movements in the empire's periphery, the institutionalization and extension of violence during the World War, revolutionary and Marxist ideologies, peasant revolt, and the reasons for Bolshevik victory during the civil war.

**Notes** This course is crosslisted with HIST 447. Credit at the 600-level requires additional work.

#### HIST 648 - Asian American History Credits 3

Examines the Asian American experience from the nineteenth century until the present with an emphasis on activities in the American West.

**Notes** This course is crosslisted with HIST 448. Credit at the 600-level requires additional work.

#### HIST 649A - History of Japan to 1800 Credits 3

Analysis and interpretation of Japanese history to 1800. Examines political and intellectual leaders and events, social and cultural developments, economic forces and foreign relations.

**Notes** This course is crosslisted with HIST 449A. Credit at the 600-level requires additional work.

#### HIST 649B - History of Japan since 1800 Credits 3

Analysis and interpretation of Japanese history since 1800. Examines political and intellectual leaders and events, social and cultural developments, economic



forces and foreign relations.

**Notes** This course is crosslisted with HIST 449B.  
Credit at the 600-level requires additional work.

HIST 649C - Topics in Japanese History  
Credits 3

In-depth study of selected aspects of Japanese history.

**Notes** This course is crosslisted with HIST 449C.  
Credit at the 600-level requires additional work. May be repeated to a maximum of 6 credits.

HIST 652A - Popular Culture in Nineteenth-Century America  
Credits 3

History of popular culture in the United States. Concept of culture scrutinized. Key themes include the development of market culture, the creation of an American aesthetic, sensationalism of public life, and creation of a cultural hierarchy.

**Notes** This course is crosslisted with HIST 452A.  
Credit at the 600-level requires additional work.

HIST 652B - Popular Culture in Twentieth-Century America  
Credits 3

History of popular culture in the recent United States. Key themes include the growth of mass media and mass culture, debates over the merits and effects of popular culture, and the relationship of so-called highbrow and lowbrow culture.

**Notes** This course is crosslisted with HIST 452B.  
Credit at the 600-level requires additional work.

HIST 653 - Women in Politics  
Credits 3

History of women in U.S. politics beginning with the suffrage movement and concluding with the most recent election. Topics include women as candidates, in office, as administrators, as lobbyists and as political activists. Concludes with a section on so-called "women's issues," choice, domestic violence, child support, day care, women's health and current issues.

**Same as** PSC 401J & WMST 401J

**Notes** This course is crosslisted with HIST 435.  
Credit at the 600-level requires additional work.

HIST 655A - History of China to 1800  
Credits 3

Analysis and interpretation of Chinese history to 1800. Examines political and intellectual leaders and events, social and cultural developments, economic forces and foreign relations.

**Notes** This course is crosslisted with HIST 455A.  
Credit at the 600-level requires additional work.

HIST 655B - History of China since 1800  
Credits 3

Analysis and interpretation of Chinese history since 1800. Examines political and intellectual leaders and events, social and cultural developments, economic forces and foreign relations.

**Notes** This course is crosslisted with HIST 455B.  
Credit at the 600-level requires additional work.

HIST 655C - Topics in Modern China  
Credits 3

In-depth study of aspects of modern China. Each year a different theme, such as "Reform, Rebellion, and Revolution" or "Twentieth-Century China."

**Notes** This course is crosslisted with HIST 455C.  
Credit at the 600-level requires additional work.

HIST 656 - Topics in Ancient History  
Credits 3

Explores varied topics in the ancient Greco-Roman world from a historical perspective. Topics may include religious ideas and practices; class, status, and cultural identity; or the relation between literary production and culture. Develops skills of analysis, interpretation, and exposition of significant historical fields.

**Notes** This course is crosslisted with HIST 456.  
Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

HIST 657 - Ancient Greek Civilization  
Credits 3

History of Greece and Hellenic civilization from the end of prehistoric times until the Roman conquest.

**Notes** This course is crosslisted with HIST 457.  
Credit at the 600-level requires additional work.

HIST 658 - Roman Civilization  
Credits 3

Analyzes all aspects of Roman history from earliest times to the late antique period, with central attention to the politics and society of the later Republic and how Rome became the monarchy of the Caesars.

**Notes** This course is crosslisted with HIST 458.  
Credit at the 600-level requires additional work.

#### HIST 659 - Medieval Civilization

Credits 3

The department also offers a large number of undergraduate courses which are open to graduate students at the 600-level. Among these are courses which reflect the specializations of our faculty. Graduate students enrolled in such courses will ordinarily be expected to complete a special project. A full description of this course may be found in the Undergraduate catalog under the corresponding 400 number.

#### HIST 659A - Topics in Medieval History

Credits 3

Examines selected topics in medieval history in depth and detail. Topics may include the Crusades; the family, marriage and sexuality; the Middle Ages in film and fact; and science, technology and magic.

**Notes** This course is crosslisted with HIST 459A.  
Credit at the 600-level requires additional work.

#### HIST 660A - The Renaissance

Credits 3

Development of new forms of art, culture, religious expression, political thought, urban organization, economic practice, and family structure from the end of the Middle Ages to the beginnings of the modern era.

**Notes** This course is crosslisted with HIST 460A.  
Credit at the 600-level requires additional work.

#### HIST 660B - The Reformation

Credits 3

Europe from the emergence of Protestantism to the outbreak of the Thirty Years War. Breakup of the medieval ideal of a united Christendom, mainstream and radical Protestantism, impact of religious warfare, changing attitudes toward high and popular culture.

**Notes** This course is crosslisted with HIST 460B.  
Credit at the 600-level requires additional work.

#### HIST 661 - Europe in the 18th Century

Credits 3

Advanced study of eighteenth-century European cultural, intellectual, social and political history. Includes Enlightenment ideas ("progress, the "pursuit

of happiness" and the quest for "virtue"); constitutional and absolutist government; commercial capitalism; changes to the traditional social order; nationalism and patriotism; religious toleration; and the advent of print culture.

**Notes** This course is crosslisted with HIST 461.  
Credit at the 600-level requires additional work.

#### HIST 661B - Early Modern Europe: 1550-1789

Credits 3

Development of the economic, political, social, and cultural patterns of Europe during the Age of Reason and the Age of Enlightenment.

**Notes** This course is crosslisted with HIST 461B.  
Credit at the 600-level requires additional work.

#### HIST 662 - The French Revolution and Napoleon

Credits 3

Study of France during the last stages of the old regime; the revolution; and the rise and fall of Napoleon Bonaparte.

**Notes** This course is crosslisted with HIST 462.  
Credit at the 600-level requires additional work.

#### HIST 663 - Europe: 1815-1914

Credits 3

Detailed study of the development of the economic, political, social, and cultural patterns of Europe from Waterloo to the outbreak of World War I.

**Notes** This course is crosslisted with HIST 463.  
Credit at the 600-level requires additional work.

#### HIST 664 - Europe: 1914 to the Present

Credits 3

Detailed analysis of the First World War, the Versailles settlement, the Russian revolution, the emergence of Fascism and Nazism, the Second World War, the Cold War, European reconstruction, the Eastern European Revolutions, the development of consumer societies, European economic integration, the end of communism, and the wars of Yugoslav succession.

**Notes** This course is crosslisted with HIST 464.  
Credit at the 600-level requires additional work.

#### HIST 664A - Topics in Modern European History

Credits 3

Examines selected topics in modern European history in depth and detail.

**Notes** May be repeated to a maximum of six credits.

This course is crosslisted with HIST 464A. Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing.

HIST 666 - European Diplomatic History, 1815-Present

Credits 3

Examines politics and diplomacy in Europe from the Congress of Vienna to the present. Topics include the "Spring of Nations" in 1848, the unification of Germany in 1871, the outbreaks of World War I, World War II, and the Cold War.

**Notes** This course is crosslisted with HIST 466. Credit at the 600-level requires additional work.

HIST 668 - History of Science

Credits 3

Study of the major scientific and technological advances since medieval times and their impact on society. Presented in a non-technical manner.

**Notes** This course is crosslisted with HIST 468. Credit at the 600-level requires additional work.

HIST 670 - History of Mexico

Credits 3

Study of the development of Mexican civilization, examining the Maya and Aztec background and emphasizing the Spanish conquest, colonial institutions, the independence movement and the problems of nationhood, the Mexican Revolution of 1910, and contemporary issues.

**Notes** This course is crosslisted with HIST 470. Credit at the 600-level requires additional work.

HIST 671 - Revolution and Reaction in Contemporary Latin America

Credits 3

Study of major political movements, leaders, and trends in Latin America from the Cuban Revolution to the present day.

**Notes** This course is crosslisted with HIST 471. Credit at the 600-level requires additional work.

HIST 672 - History of Brazil

Credits 3

Development of Brazil from the beginning of Portuguese colonization to the present, with emphasis on colonial institutions, territorial expansion, slavery and race relations, political evolution, and recent social and economic problems.

**Notes** This course is crosslisted with HIST 472. Credit at the 600-level requires additional work.

HIST 673 - History of the Andean Region

Credits 3

Central and southern Andes from the Inca period to the present: the Inca Empire, the Spanish conquest, colonial society and institutions, the independence movements, and the republics of Peru, Bolivia, and Chile, with emphasis on reform and revolution in the twentieth century.

**Notes** This course is crosslisted with HIST 473. Credit at the 600-level requires additional work.

HIST 674 - Latin American Ethnic Studies

Credits 3

Cultural study of pre-Columbian and early colonial institutions in Mesoamerica and the Andes with emphasis on the information gathered from indigenous chronicles and early documents.

**Notes** This course is crosslisted with HIST 474. Credit at the 600-level requires additional work.

HIST 675 - Modern Latin American Film

Credits 3

Cinematic treatments of modern Latin American socio-historical issues. Topics include industrialization, dictatorship and repression, redemocratization, and minority rights. Analysis of the Cinema Novo (Cinema Nueva) and post-Cinema Novo genres. Emphasis on Brazilian, Argentine, and Cuban films of the 1970s and 1980s.

**Same as** FIS 475

**Notes** This course is crosslisted with HIST 475. Credit at the 600-level requires additional work.

HIST 676 - The Mexican Revolution

Credits 3

Study of the origins, major events and personalities, and aftermath of the Mexican Revolution of 1910, tracing Mexico's political development to modern times.

**Notes** This course is crosslisted with HIST 476. Credit at the 600-level requires additional work.

HIST 678A - Islamic and Middle Eastern History to 1750

Credits 3

An examination of the rise and development of Islamic civilization from its inception in the seventh

century up into the early modern period. It presents the diversity of Islamic civilization as it evolved over time, as well as the historical contexts of both the Islamic heartland and its surrounding regions.

**Notes** This course is crosslisted with HIST 478A. Credit at the 600-level requires additional work.

HIST 678B - Islamic and Middle Eastern History since 1750  
Credits 3

An examination of the Middle East from the 18th century to recent times. The predominant focus will be on how the indigenous leadership and peoples of the region grappled with the challenges posed by the advent of the modern world.

**Notes** This course is crosslisted with HIST 478B. Credit at the 600-level requires additional work.

HIST 679 - History of the British Empire  
Credits 3

Explores the history of the British Empire from its beginnings to decolonization and analyzes the social, cultural, and intellectual foundations of imperial Britain. The emergence of Great Britain as an imperial power considered within the larger context of concerns about race, class, and gender.

**Notes** This course is crosslisted with HIST 479. Credit at the 600-level requires additional work.

HIST 679A - West Africa and the Making of the Atlantic World  
Credits 3

Explores how West Africa contributed to the cultural and economic development of the Atlantic world and how European contact and interaction contributed to West Africa's development and underdevelopment.

**Notes** This course is crosslisted with HIST 479A. Credit at the 600-level requires additional work.

HIST 682 - Music History I

The department also offers a large number of undergraduate courses which are open to graduate students at the 600-level. Among these are courses which reflect the specializations of our faculty. Graduate students enrolled in such courses will ordinarily be expected to complete a special project. A full description of this course may be found in the Undergraduate catalog under the corresponding 400 number.

HIST 683 - Music History II

The department also offers a large number of undergraduate courses which are open to graduate students at the 600-level. Among these are courses which reflect the specializations of our faculty. Graduate students enrolled in such courses will ordinarily be expected to complete a special project. A full description of this course may be found in the Undergraduate catalog under the corresponding 400 number.

HIST 683A - Urban Destruction and Reconstruction  
Credits 3

Study of populations, cityscapes, and infrastructures in cities wounded by acts of warfare, terrorism, and natural disasters, as well as by social, environmental, and economic decline. Analyzes urban renewal and reconstruction efforts and counter-terrorism policies and their effect on the strategic, geopolitical role of cities.

**Notes** This course is crosslisted with HIST 483A. Credit at the 600-level requires additional work.

HIST 685 - Oral History  
Credits 3

Focuses on the techniques of oral history and integration of the material into a historical paper. Topics vary.

**Notes** This course is crosslisted with HIST 485. Credit at the 600-level requires additional work.

HIST 686 - Military History of the United States

The department also offers a large number of undergraduate courses which are open to graduate students at the 600-level. Among these are courses which reflect the specializations of our faculty. Graduate students enrolled in such courses will ordinarily be expected to complete a special project. A full description of this course may be found in the Undergraduate catalog under the corresponding 400 number.

HIST 687 - Topics in American Studies  
Credits 3

Interdisciplinary analysis of selected topics in American history, literature, art, science and material culture. Topics vary from semester to semester.

**Notes** This course is crosslisted with HIST 487R. Credit at the 600-level requires additional work.

HIST 689 - Comparative History

Credits 3

Study of a historical problem by examining its development in different countries and epochs. Possible topics include slavery, industrialization, and ideology.

**Notes** This course is crosslisted with HIST 489. Credit at the 600-level requires additional work.

HIST 691A - Women in the Ancient World

Credits 3

Explores women's varied roles in the ancient Near East, Greece and Rome. Examination of women's participation in religion, politics and the family as well as representations of women in myth, art, philosophy, medicine, and literature.

**Notes** This course is crosslisted with HIST 491A. Credit at the 600-level requires additional work.

HIST 691B - Women in Medieval Culture and Society

Credits 3

Explores medieval women's experiences as religious leaders, workers, queens and ladies of the manor, and as mothers, wives and daughters. Special attention will be paid to women's voices expressed in letters and autobiography, literature, historical records and art.

**Notes** This course is crosslisted with HIST 491B. Credit at the 600-level requires additional work.

HIST 692A - Women In Early Modern Europe

Credits 3

Explores the roles of women during the Renaissance, Reformation, and the early modern period. Topics include women and work, women's participation in the creation of culture and religion, and the European witch-hunts.

**Notes** This course is crosslisted with HIST 492A. Credit at the 600-level requires additional work.

HIST 692B - Woman's Role in European History: 1750-1970

Credits 3

Analysis and interpretation of women's roles in the modern world. Topics include the emergence of feminism and the international women's movement; the impact of industrialization on work and the family; constructions of gender, sexuality and motherhood.

**Notes** This course is crosslisted with HIST 492B. Credit at the 600-level requires additional work.

HIST 695 - Special Topics in Gender and History

Credits 3

Study of a selected topic concerning gender and history.

**Notes** This course is crosslisted with HIST 495. Credit at the 600-level requires additional work.

HIST 696 - Philosophy of History

Credits 3

Theory, epistemology, and methodology of historiography, dealing with such questions as the nature, aims, and methods of history; its status as a science; the legitimacy of the so-called speculative philosophy of history; and the structure of historical knowledge.

**Same as** PHIL 437

**Notes** This course is crosslisted with HIST 496. Credit at the 600-level requires additional work.

HIST 698 - Advanced Historical Studies

Credits 1-4

Study of the historical origins and aspects of selected contemporary issues.

**Notes** This course is crosslisted with HIST 498. Credit at the 600-level requires additional work.

HIST 710 - The Professional Historian

Credits 1

Provides information and workshops for History graduate students on grant writing, conference paper abstract writing, job applications, research grant applications, etc. to develop professional skills beyond coursework. Discussion of aspects of the historical profession.

HIST 724 - Colloquium in American Cultural/Intellectual History

Credits 3

Specific topic or theme announced each semester and related bibliography provided. Group sessions critique this literature and evaluate historiographical status of authors.

**Notes** Several short papers, designed to give training in critical analysis, required. May be repeated to a maximum of nine credits.

**Prerequisites** Graduate standing.

HIST 725 - Seminar in American Cultural/Intellectual History  
Credits 4

Topic to be announced each semester.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Graduate standing.

HIST 726 - Colloquium in American Western History  
Credits 3

Specific topic or theme announced each semester and related bibliography provided. Group sessions critique literature and evaluate the historiographical status of authors. Several short papers, designed to give training in critical analysis, required.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Graduate standing.

HIST 727 - Research Seminar in American Western History  
Credits 4

Topic to be announced each semester.

**Notes** May be repeated to a maximum of 12 credits.

**Prerequisites** Graduate standing.

HIST 728 - Colloquium in European Cultural/Intellectual History  
Credits 3

Analysis of the historical literature on a selected topic in European intellectual/cultural history.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Graduate standing.

HIST 729 - Research Seminar in European Cultural/Intellectual History  
Credits 4

**Notes** Topic to be announced each semester. May be repeated to a maximum of twelve credits.

**Prerequisites** Graduate standing.

HIST 730 - Colloquium in American History  
Credits 3

Specific topic or theme to be announced and related bibliography provided. Course focuses on critical analysis and historiographical evaluation of the literature. a) Early America. b) Nineteenth Century. c) Twentieth Century. d) Diplomatic. e) Economic. f) Gender. h) Legal. i) Political j) Race. k) Religion l) Social.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Graduate standing.

HIST 731 - Research Seminar in American History  
Credits 4

Topic to be announced each semester. a) Early America. b) Nineteenth Century. c) Twentieth Century. d) Diplomatic. e) Economic. f) Gender. h) Legal. i) Political. j) Race. k) Religion. l) Social.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Graduate standing.

HIST 732 - Colloquium in European History  
Credits 3

Analysis of the historical literature on a selected topic in European history. a) England. b) The French Revolution and Napoleon. c) Modern Russia. d) Germany. e) Medieval History. f) Europe since 1945.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Graduate standing.

HIST 733 - Research Seminar in European History  
Credits 4

Topic to be announced each semester. a) England. b) The French Revolution and Napoleon. c) Modern Russia. d) Germany. e) Medieval. f) Europe since 1945.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Graduate standing.

HIST 734 - Colloquium in Modern Asian History  
Credits 3

Analysis of the historical literature on a selected topic in modern Asia.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Graduate standing.

HIST 735 - Research Seminar in Modern Asian History  
Credits 4

Topic to be announced.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Graduate standing.

HIST 736 - Colloquium in Modern Latin American History  
Credits 3

Analysis of the historical literature on a selected topic in modern Latin America. Topics to be announced.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Graduate standing.

HIST 737 - Research Seminar in Modern Latin American History

Credits 4

Topics to be announced.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Graduate standing.

HIST 738 - Colloquium in African and Middle Eastern History

Credits 3

Analysis of the historical literature on a selected topic in Africa and/or the Middle East.

HIST 739 - Research Seminar in African and Middle Eastern History

Credits 4

Topic to be announced.

**Notes** May be repeated to a maximum of twelve credits.

HIST 740 - Historiography

Credits 3

Lectures, readings, and discussions on the history of historical thought. a) United States-Domestic. b) Europe. c) Modern Asia. d) Modern Latin America. e) United States-iplomatic. f) American West. g) United States (cultural/intellectual). h) European (cultural/intellectual).

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Graduate standing.

HIST 748 - History and Policy

Credits 3

Interdisciplinary historical analysis of American policy formation and failed versus workable policy ideas. Areas of investigation include policy studies in fields such as labor, urban development, minorities and diplomacy.

**Prerequisites** Graduate standing.

HIST 749 - Colloquium in Public History

Credits 3

Practical as well as theoretical introduction to the techniques, methodologies and practices of historians

in non-academic settings, including historic preservation, museums, oral history, historical sites, government agencies.

**Prerequisites** Graduate standing.

HIST 750 - Methods for the Study of Public History

Credits 3

Study of methods emphasizing those historical techniques and auxiliary sciences which are most appropriate for the study of public history.

**Prerequisites** Graduate standing.

HIST 751 - Museums and American Culture

Credits 3

Theoretical and practical introduction to issues involved in history museums. Evolving role of museums in American society; organizational, ethical, and interpretive issues; the tension between power and the production of knowledge and memory. Emphasis on curatorial practice including researching and interpreting material culture.

**Prerequisites** Graduate standing.

HIST 752 - Modern Archives: Theory and Methodology

Credits 3

Introduction to theoretical principles, methodologies and processing of archives and manuscripts, institutional programs that care for them, and professional community supporting this work. For students interested in the practice of public history in a variety of historical agencies or organizations.

**Prerequisites** Graduate standing.

HIST 754 - Topics in Public History

Credits 3

Practical and theoretical course exploring the varieties of public history.

**Prerequisites** Graduate standing.

HIST 760 - Advanced Studies in History

Credits 1 – 3

**Notes** May be repeated to a maximum of six credits, unless otherwise approved by the department.

**Prerequisites** Graduate standing.

HIST 761 - Doctoral Independent Study

Credits 1 – 3

Supervised readings on special topics selected in consultation with a history instructor.

**Notes** May be repeated to a maximum of twelve credits, unless otherwise approved by the department.

**Prerequisites** Graduate standing.

HIST 788 - Comprehensive Exam Preparation  
Credits 3

This course organizes the preparation process for comprehensive exams. A student, in conjunction with one of the members of his/her advisory committee, will follow a rigorous schedule of reading, question preparation, and preparatory writing.

HIST 789 - Dissertation Prospectus  
Credits 3

This course organizes the preparation and defense of the dissertation prospectus. The student, in conjunction with the members of his/her advisory committee will follow a rigorous schedule of research and writing to prepare the prospectus for the prospectus colloquium.

HIST 790 - Thesis  
Credits 3 – 6

**Notes** May be repeated, but only six credits applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** Graduate standing.

HIST 790A - Materials for Teaching History  
Credits 3

Capstone course for the Master of Arts in Teaching History co-taught by History and Curriculum and Instruction faculty. Builds on historical content, original research and pedagogical skills geared to the creation of middle and high school history classroom units.

**Prerequisites** 700-level HIST colloquium and 700-level HIST research seminar.

HIST 791 - Dissertation  
Credits 3 – 6

**Notes** May be repeated, but only 12 credits applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** Graduate standing.

HIST 795 - Internship in Public History  
Credits 3

Supervised internship is an integral part of the Public History track. Internships provide students with

practical insights into potential historical employment. Private sector or institutional supervisors provide mentoring relationships and introduce students to the professional networks common to the public historian's work environment.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing.



## **Interdisciplinary Studies**

The College of Liberal Arts offers a number of interdisciplinary programs that enable students to take courses in several departments and colleges on campus. Students combine their course work in exciting and innovative ways beyond the existing Bachelor of Arts and Bachelor of Science degrees in order to meet their career goals and to reflect their personal interests. There are Interdisciplinary B.A. degree programs in the following fields: Afro-American Studies, Asian Studies, Latin American Studies, Multidisciplinary Studies, Social Science Studies and Women's Studies.

### **Women's Studies:**

Women's Studies provides students with interdisciplinary approaches and methodologies for studying gender relations, i.e. how gender, in intersection with other substantive categories of analysis and identity, such as race, class, sexuality, ethnicity, physical ability, nationality, shapes the material conditions of peoples' lives all over the world. Our classrooms are interactive learning environments that value diversity and multiple perspectives. Our students learn new ways of viewing the world, develop tools for critical thinking, and are empowered to make a difference in the world. Our curriculum provides students with the skills to undertake cutting-edge research on contemporary issues through our core sequence of upper-division courses on theory, research methodologies, and praxis. Students interested in learning more about gender issues in conjunction with other interests find that it is easy to combine our curriculum with other majors, minors and fields of study. In addition, internship and leadership opportunities, combined with individualized advising from core faculty, allows students to pursue career goals while undertaking their course of study. Women's Studies equips students to enter a range of careers in today's diverse and multicultural workplaces. Students can pursue further study to become researchers and scholars either within the growing field of Women's/Gender Studies or in a wide range of academic fields in the humanities and social sciences

where knowledge of contemporary gender analysis provides an advantage.

The Certificate in Women's Studies has been placed in moratorium as the department effects its transition into Interdisciplinary Degree Programs. No students will be accepted into the Certificate Program until further notice

*Tim Gauthier, Ph.D., Director*

## Interdisciplinary Studies Faculty

### Graduate Faculty

**Bergquist, Kathleen**

### Professor

**Bock, Sheila** - *Full Graduate Faculty*

Assistant Professor; B.A., UC Berkeley; M.A., Ohio State University; Ph.D., Ohio State University.

**Comella, Lynn** - *Full Graduate Faculty*

Assistant Professor; Ph.D., University of Massachusetts, Amherst.

**Gauthier, Tim** - *Full Graduate Faculty*

### Assistant Professor

**Macias, Stacy** - *Associate Graduate Faculty*

Assistant Professor-in-Residence

**Padoongpatt, Tanachai**

Assistant Professor; Ph.D., University of Southern California.

**Revilla, Anita** - *Full Graduate Faculty*

Associate Professor; Ph.D., UCLA.

**Roth-Johnson, Danielle** - *Associate Graduate Faculty*

Assistant Professor-in-Residence; Ph.D., Stanford University.

**Spencer, Rainier** - *Full Graduate Faculty*

Professor.

**Tuman, John**

Associate Professor; Ph.D., UCLA

## Women's Studies Courses

WMST 601 - Feminist Theories

Credits 3

The following undergraduate course may be used in the graduate program of study with the approval of the advisor. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

WMST 607 - Communication Between the Sexes

Credits 3

Introduction to gender research in communication. Studies ways in which language, interpersonal communication, the media, and various social institutions influence conceptions of gender.

**Notes** This course is crosslisted with WMST 407. Credit at the 600-level requires additional work.

WMST 618 - Language and Gender

Credits 3

Examines from anthropological perspective the ways language and gender intertwine. Explores how language emerges from, reproduces, and challenges ideas of gender and gendered practices cross-culturally. Topics covered include the interaction of gender with race, identity and class in language use.

**Notes** This course is crosslisted with WMST 418. Credit at the 600-level requires additional work.

WMST 632A - History of American Women to 1870

Credits 3

Examines the history of women in the United States from the period of European contact to reconstruction. Examines women's changing roles in the family, work force, politics, and social movements. Examines the historical experience of European colonists, Native Americans, African Americans, and immigrants.

**Notes** This course is crosslisted with WMST 432A. Credit at the 600-level requires additional work.

WMST 632B - History of American Women Since 1870

Credits 3

Women's relationship to the economy and to political movements, changing ideals of womanhood, the demographic and sexual revolutions transforming

family life and gender roles, and class, race, ethnic, and regional variations in female experience.

**Notes** This course is crosslisted with WMST 632B. Credit at the 600-level requires additional work.

#### WMST 648 - Gender and Social Interaction

Credits 3

Examines the micro-social and political aspects of gender, including socialization into gender roles, same-sex and cross-sex communications, interactions, and long-term relationships.

**Notes** This course is crosslisted with WMST 448. Credit at the 600-level requires additional work.

#### WMST 671 - Sexuality, Literature and the City

Credits 3

Explores how categories of sexuality change as the U.S. becomes increasingly urbanized. Texts include novels and stories, a history of sexual relations, and critical theory of the modern notion of "sexuality."

**Notes** This course is crosslisted with WMST 471. Credit at the 600-level requires additional work.

#### WMST 672 - Controversies in Gender and Race

Credits 3

Situates selected current topics in historical, social, political, economic, intellectual, and popular culture contexts. Topics may include rape, police profiling, civil rights, reparations for slavery, feminist activism, immigration. Students develop and apply critical thinking, reading, and writing to variety of academic and non-academic situations.

**Notes** This course is crosslisted with WMST 472. Credit at the 600-level requires additional work.

#### WMST 673 - Chicana Feminism and Experience

Credits 3

Examines Chicana/Latina experiences as they intersect with race, class, gender, sexuality, and nation. Examines the work of Chicana/Latina writers, feminists, scholars, performers, artists, filmmakers, and activists. Focuses on issues such as immigration, labor, family, language, education, spirituality, identity, patriarchy, homophobia, and racism.

**Notes** This course is crosslisted with WMST 473. Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing.

#### WMST 674 - Gender, Sexuality, and Consumer Culture

Credits 3

Explores theoretical and empirical approaches to consumer culture, with a focus on gender, sexuality, social class, and consumption. Examines the rise of mass consumerism in American society, and the ways social participation, individual identities, subcultural communities, and political life are shaped through varied acts of consumption.

**Notes** This course is crosslisted with WMST 474. Credit at the 600-level requires additional work.

#### WMST 675 - Gender, Development, and Globalization

Credits 3

Examines the relationship between women's position and processes of development and globalization, with a primary focus on Third World women. Considers the interaction of local and global forces in creating change (both positive and negative) and women's perspectives and activism for promoting social equity.

**Notes** This course is crosslisted with WMST 475. Credit at the 600-level requires additional work.

**Prerequisites** Graduate Standing.

#### WMST 676 - Feminism and Activism

Credits 3

Presents selected activist movements across the political spectrum. Includes nineteenth century abolitionism, women's rights and twentieth century socialism and feminism. Also examines movements for social change from the right and left.

**Notes** This course is crosslisted with WMST 476. Credit at the 600-level requires additional work.

**Prerequisites** Graduate Standing.

#### WMST 677 - Critical Race Feminism

Credits 3

Examination of feminist theories put forward by women of color. Topics include critical race feminist approaches to race, ethnicity, gender, class, sexuality, language, immigration, and labor.

**Notes** This course is crosslisted with WMST 477. Credit at the 600-level requires additional work.

#### WMST 690 - Special Topics

Credits 3

Intensive study of a major topic in women's studies.

**Notes** This course is crosslisted with WMST 490. Credit at the 600-level requires additional work.

May be repeated to a maximum of twelve credits.

#### WMST 691A - Women in the Ancient World

Credits 3

Explores women's varied roles in the ancient Near East, Greece and Rome. Examination of women's participation in religion, politics and the family as well as representations of women in myth, art, philosophy, medicine, and literature.

**Notes** This course is crosslisted with WMST 491A. Credit at the 600-level requires additional work.

#### WMST 691B - Women in Medieval Culture and Society

Credits 3

Explores medieval women's experiences as religious leaders, workers, queens, and ladies of the manor, and as mothers, wives and daughters. Special attention paid to women's voices expressed in letters and autobiography, literature, historical records and art.

**Notes** This course is crosslisted with WMST 491B. Credit at the 600-level requires additional work.

#### WMST 692A - Women in Early Modern Europe

Credits 3

Explores the roles of women during the Renaissance, Reformation, and the early modern period. Topics include women and work, women's participation in the creation of culture and religion, and the European witch-hunts.

**Notes** This course is crosslisted with WMST 492A. Credit at the 600-level requires additional work.

#### WMST 695 - Special Topics in Gender and History

Credits 3

Study of a selected topic concerning gender and history.

**Notes** This course is crosslisted with WMST 495. Credit at the 600-level requires additional work. May be repeated to a maximum of six credits.

#### WMST 700 - Introduction to Women's Studies

Credits 3

Satisfies the prerequisite for admission to the women's studies graduate certificate program for those applicants who have no prior knowledge of the field, as demonstrated either by undergraduate course work in women's studies or extensive reading of and

familiarity with women's studies scholarship.

**Prerequisites** Graduate Standing.

#### WMST 701 - Feminist Theory

Credits 3

Interdisciplinary examination of feminist principles of analysis, applied to gendered social life. Encompasses multicultural and transnational perspectives on the questions: What is feminist theory? What is the relationship between theory and practice? What is the role of theory in political and social activism? What does it mean to "do" theory?

**Prerequisites** Admission to Graduate Certificate Program; or completion of two 600-level Women's Studies or crosslisted courses on women and/or gender, or permission of instructor.

#### WMST 702 - Principles of Feminist Inquiry

Credits 3

Introduction to the theory and application of research methods from critical feminist inquiry approach. Investigates core scholarship of feminist inquiry applied to research methods in the last twenty-five years.

**Prerequisites** Admission to Graduate Certificate Program; or completion of two 600-level Women's Studies or cross-listed courses on women and/or gender; or permission of instructor.

#### WMST 703 - Feminist Pedagogy

Credits 3

Historical development of theory and practice of feminist pedagogy offers opportunity to practice the art. Students prepared to teach interdisciplinary women's studies courses at postsecondary level.

**Prerequisites** Admission to Graduate Certificate Program; or completion of two 600-level Women's Studies or cross-listed courses on women and/or gender; or permission of instructor.

#### WMST 710 - Graduate Capstone Seminar

Credits 3

Capstone seminar provides opportunity for students to reflect critically on theories and methods of interdisciplinary women's studies scholarship and apply them either to production of knowledge in the arts, humanities, social sciences, or natural sciences or to their practice as psychologists, social workers, nurses, librarians, teachers, and other working

professionals.

**Prerequisites** WMST 701 and WMST 702

WMST 721 - Issues in Women's Nutrition

Credits 3

Advanced discussion of how nutrition affects physical and mental health of women throughout the life cycle and how to evaluate validity of nutrition research as it relates to the needs of women rather than the general population.

**Prerequisites** Graduate standing.

WMST 799 - Independent Study

Credits 3

Independent study of special topics selected in consultation with the chair of women's studies.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of chair.

## **Philosophy**

Most disciplines have their origins in philosophy, and philosophy still underlies them all. Nevertheless, certain questions are enduringly philosophical — peculiarly fundamental questions concerning the ultimate nature of values, knowledge, and reality. Philosophy thus investigates general topics of human interest: morality and the good life, law and the political life, God and the sacred, good and bad reasoning, evidence and discovery, art and the beautiful. Studying philosophy requires learning how to listen and how to discuss; it involves sifting through ideas and articulating thoughts in ways that others can follow. It is little wonder, therefore, that not only is a degree in philosophy valuable in itself, but it is also widely recognized as an excellent preparation for careers in academics, law, medicine, and even business.

*David Beisecker, Ph.D., Chair*

## Philosophy Faculty

### Chair

**Beisecker, David** - *Full Graduate Faculty*  
Associate Professor; B.A., Washington University;  
Ph.D., University of Pittsburgh.

### Graduate Faculty

**Dove, Ian**- *Full Graduate Faculty*  
Associate Professor.

**Forman, David**- *Full Graduate Faculty*  
Associate Professor; Ph.D., University of Chicago.

**Janssen, Greg** - *Associate Graduate Faculty*  
Lecturer/Faculty-in-Residence.

**Jones, Todd**- *Full Graduate Faculty*  
Professor.

**Lindland, Erik** - *Associate Graduate Faculty*  
Lecturer/Faculty-in-Residence.

**Ramsey, William**- *Full Graduate Faculty*  
Associate Professor.

**Schollmeier, Paul**- *Full Graduate Faculty*  
Professor; B.A., University of Chicago; M.A.,  
University of Chicago; Ph.D., University of Chicago.

**Woodbridge, James**- *Full Graduate Faculty*  
Associate Professor.

### Professor Emeriti

**Finocchiaro, Maurice**  
Emeritus Professor.

**Rosenbaum, Stephen**  
Emeritus Professor.

## Philosophy Courses

PHIL 601 - Ancient Philosophy  
Credits 3  
Philosophy from the pre-Socratics to Plotinus,  
including the Sophists, Plato, Aristotle, the  
Epicureans, Stoics, Skeptics, and early Christian  
writers.

**Notes** This course is crosslisted with PHIL 401.  
Credit at the 600-level requires additional work.

PHIL 603 - Early Modern Philosophy  
Credits 3  
Renaissance and early modern philosophy from the  
Italian Renaissance to Kant, including such figures as  
Leonardo, Pico, Erasmus, Luther, Montaigne,  
Descartes, Bacon, Hobbes, Spinoza, Locke, Leibniz,  
Vico, Berkeley, Hume, and Kant.

**Notes** This course is crosslisted with PHIL 403.  
Credit at the 600-level requires additional work.

PHIL 604 - 19th Century Philosophy  
Credits 3  
Study of the major philosophers and philosophical  
currents of the nineteenth century introduced first by  
Kant's critical period; the movement from Kant  
through Hegel's absolute idealism; other important  
currents, including historical materialism (Marx),  
positivism (Comte), utilitarianism (Bentham, Mill),  
and pragmatism (C.S. Peirce).

**Notes** This course is crosslisted with PHIL 404.  
Credit at the 600-level requires additional work.

PHIL 605 - Contemporary Philosophy  
Credits 3  
Study of the movements of twentieth-century  
thought: Vitalism, neo-Kantianism, dialectical  
materialism, phenomenology, existentialism,  
neopositivism, analysis, neo-Thomism, and American  
naturalism and pragmatism.

**Notes** This course is crosslisted with PHIL 405.  
Credit at the 600-level requires additional work.

PHIL 606 - American Philosophy  
Credits 3  
Development of philosophy in America from the  
Transcendentalists and the St. Louis School through  
Royce, Peirce, James, Dewey, and Santayana.

**Notes** This course is crosslisted with PHIL 406.  
Credit at the 600-level requires additional work.

#### PHIL 615 - Kant

Credits 3

Intensive study of one or more of Kant's major writings; e.g., the Critique of Pure Reason, Critique of Practical Reason, Critique of Judgement, Metaphysics of Morals.

**Notes** This course is crosslisted with PHIL 415.  
Credit at the 600-level requires additional work.

#### PHIL 620 - Logical Theory

Credits 3

Systematic logical investigation of topics including necessity and possibility, moral obligation and permission, belief and knowledge, semantic paradoxes (e.g., Liar), vagueness, theories of truth, the analysis of conditionals and quantifiers, deviant or non-classical logics, contradiction, theoretical commitments, theories of argument and informal logic, tense and time, or related material.

**Notes** This course is crosslisted with PHIL 420.  
Credit at the 600-level requires additional work.

#### PHIL 622 - Advanced Logic

Credits 3

Study of formal logic through first-order logic with identity. Soundness, completeness, compactness and other metatheorems. Other topics may include computability, modal logic, epistemic logic, many-valued logic, the logic of conditionals, higher-order logics, infinitary logics or non-monotonic logics, number theory, Godel's theorems, and the limits of logicism.

**Notes** This course is crosslisted with PHIL 422.  
Credit at the 600-level requires additional work.

#### PHIL 625 - Philosophy of Language

Credits 3

Nature, acquisition and structure of language, including such philosophical issues as meaning, reference, speech acts and semantics.

**Notes** This course is crosslisted with PHIL 425.  
Credit at the 600-level requires additional work.

#### PHIL 630 - Philosophy of Science

Credits 3

Study of the nature of scientific method and theory construction, and of causality, explanation,

determinism, indeterminism, and probability.

**Notes** This course is crosslisted with PHIL 430.  
Credit at the 600-level requires additional work.

#### PHIL 631 - History of Scientific Thought

Credits 3

Study of selected topics in the history of science, such as the impact of Euclidean geometry, the Copernican Revolution, the origin of modern science, the development of non-Euclidean geometry, the transition from classical to modern physics and the rise of evolutionary biology.

#### PHIL 632 - Philosophy of Social Sciences

Credits 3

Study of problems confronted by social scientists such as cultural relativism, methodological individualism, whether social sciences resemble natural sciences, and the role of value judgments in research.

**Notes** This course is crosslisted with PHIL 432. Credit at the 600-level requires additional work.

#### PHIL 633 - Philosophical Psychology

Credits 3

Study of the nature of human consciousness, mind, and intention, and their interrelation with perception and action with reference to relevant scientific findings of artificial intelligence and brain-behavior relationships.

**Notes** This course is crosslisted with PHIL 433.  
Credit at the 600-level requires additional work.

#### PHIL 634 - Philosophy Cognitive Science

Credits 3

Critical assessment of interdisciplinary approaches to topics such as the philosophy of: innate knowledge, memory, mental representation, artificial intelligence, rationality, intentionality, and parallel computation.

**Notes** This course is crosslisted with PHIL 434.  
Credit at the 600-level requires additional work.

#### PHIL 640 - Theory of Knowledge

Credits 3

Study of how we know. Includes such problems as belief, evidence, perception, skepticism, and other minds.

**Notes** This course is crosslisted with PHIL 440.  
Credit at the 600-level requires additional work.

### PHIL 641 - Metaphysics

Credits 3

Study of theories of being, including such problems as substance, emanation, participation, essence, universals, process and time. Covers such philosophers as Aristotle, Plotinus, Leibniz, Whitehead, and Heidegger.

**Notes** This course is crosslisted with PHIL 441. Credit at the 600-level requires additional work.

### PHIL 650 - Ethical Theory

Credits 3

Study of philosophical theories of human conduct and character, together with relations of ethical theory and moral action.

**Notes** This course is crosslisted with PHIL 450. Credit at the 600-level requires additional work.

### PHIL 652 - Aesthetics

Credits 3

Study of aesthetic standards, the nature of art and artistic creativity, and the function of art in human experience.

**Notes** This course is crosslisted with PHIL 452. Credit at the 600-level requires additional work.

### PHIL 659 - Philosophy of Religion

Credits 3

Study of conceptions of God and the nature and meaning of religious experience.

**Notes** This course is crosslisted with PHIL 459. Credit at the 600-level requires additional work.

### PHIL 693 - Gandhian Welfare Philosophy and Nonviolent Culture

Credits 3

## Political Science

The Department of Political Science offers a general Master of Arts degree. Students tailor their program with the assistance of the department's graduate coordinator. Advisory committees will approve a program that will provide an appropriate degree of specialization in one of the fields of political science with supporting studies in others.

Students can pursue graduate education in the areas of American politics/public law/public policy, comparative politics, international relations, and political theory. Students can normally expect to complete the program in from one-and-a-half to two years. The department offers a number of graduate assistantships as well as internship opportunities at the local, state, and federal levels, where students can obtain on-the-job experience.

The graduate program in political science is designed to prepare graduate students for doctoral studies, teaching positions at secondary schools and community colleges, or employment by government agencies, research centers, or private industry. Our graduates have gone on to executive positions in national, state, and local governments and to doctoral programs at top schools throughout the country.

## Doctor of Philosophy in Political Science

The Ph.D. program offers concentrations in American politics/public law/public policy, comparative politics, international relations, and political theory.

Globalization is a dominant characteristic of politics in the twenty-first century. The program focuses on the causes, consequences, and limitations of the political, economic, and cultural aspects of globalization.



The Ph.D. program is intended to prepare its graduates for careers in academic institutions, government (at all levels), and business and industry. Increasingly, a cross-national, cross-cultural understanding of political processes is essential for education, public policy, and commerce.

*John P. Tuman, Ph.D., Chair*

*David Damore, Ph.D., Graduate Coordinator*

## Political Science Faculty

### Chair

**Tuman, John** - *Full Graduate Faculty*

Professor; B.A., University of California, Berkeley; M.A., University of Chicago; Ph.D., University of California, Los Angeles. *Rebel since 2001.*

### Graduate Coordinator

**Damore, David** - *Full Graduate Faculty*

Associate Professor; B.A., University of California, San Diego; M.A., University of Georgia; Ph.D., University of California, Davis. *Rebel since 2000.*

### Graduate Faculty

**Bowers, Michael** - *Full Graduate Faculty*

Professor; B.A., Cameron University; M.A., Ph.D., University of Arizona. *Rebel since 1984.*

**Fott, David S.** - *Full Graduate Faculty*

Professor; B.A., Vanderbilt University; A.M., Ph.D., Harvard University. *Rebel since 1992.*

**Gill, Rebecca** - *Full Graduate Faculty*

*Associate Professor; B.A., James Madison College at Michigan State University; Ph.D., Michigan State University. Rebel since 2008.*

**Hanks, Cathy** - *Full Graduate Faculty*

Assistant Professor in Residence; B.A., Pennsylvania State University, University Park; M.P.A., Shippensburg University; Ph.D., University of Maryland Baltimore County. *Rebel since 2013.*

**Howard, Tiffany** - *Full Graduate Faculty*

Associate Professor; B.A., Florida A&M University; M.A., Ph.D., University of Michigan, Ann Arbor. *Rebel since 2008.*

**Jelen, Ted G.** - *Full Graduate Faculty*

Professor; B.A., Knox College; M.A., Ph.D., Ohio State University. *Rebel since 1997.*

**Jensen, Christian** - *Full Graduate Faculty*

Assistant Professor; B.A., Lawrence University; M.A., American University; Ph.D., University of California, Los Angeles. *Rebel since 2012.*

**Kuenzi, Michele** - *Full Graduate Faculty*  
Associate Professor; B.A., Grinnell College; M.P.A.,  
Wayne State University; Ph.D., Michigan State  
University. *Rebel since 2004.*

**Lee, Daniel J.** - *Full Graduate Faculty*  
Assistant Professor; B.S., University of Wisconsin at  
Madison; M.A., Ph.D., Duke University. *Rebel*  
*since 2015.*

**Lutz, Mark** - *Full Graduate Faculty*  
Associate Professor; B.A., University of Chicago;  
M.A., Ph.D., University of Toronto. *Rebel since*  
*2006.*

**Parker, Steven** - *Full Graduate Faculty*  
Associate Professor; B.A., Assumption College;  
M.A., Ph.D., State University of New York,  
Albany. *Rebel since 1979.*

**Pirages, Dennis** - *Full Graduate Faculty*  
Professor; B.A., State University of Iowa; Ph.D.,  
Stanford University. *Rebel since 2009.*

**Strand, Jonathan** - *Full Graduate Faculty*  
Associate Professor; B.S., University of Wisconsin-  
Platteville; M.A., Ph.D., University of Nebraska,  
Lincoln. *Rebel since 2001.*

**Tamadonfar, Mehran** - *Full Graduate Faculty*  
Associate Professor; B.A., M.A., University of  
Tehran; Ph.D., University of Colorado, Boulder.  
*Rebel since 1987.*

### **Professors Emeriti**

**Jones, Gary L.**  
Emeritus Associate Professor; A.A., Long Beach City  
College; B.A., Long Beach State College; Ph.D.,  
Claremont Graduate School. *UNLV Emeritus 1969-*  
*2002.*

**Simich, Jerry L.**  
Emeritus Associate Professor; B.A., California State  
University, Long Beach; Ph.D., University of  
California, Santa Barbara. *UNLV Emeritus 1973-*  
*2008.*

**Titus, Dina**  
Emeritus Professor; B.A., College of William and

Mary; M.A., University of Georgia; Ph.D., Florida  
State University. *UNLV 1977-2011.*

**Tuttle, Andrew C.**  
Emeritus Associate Professor; B.A., M.A., University  
of California, Santa Barbara; Ph.D., Claremont  
Graduate School. *UNLV Emeritus 1968-2000.*

## Doctor of Philosophy - Political Science

### Plan Description

The Ph.D. program offers concentrations in American politics/public law/ public policy, comparative politics, international relations, and political theory. Globalization is a dominant characteristic of politics in the twenty-first century. The program focuses on the causes, consequences, and limitations of the political, economic, and cultural aspects of globalization.

The Ph.D. program is intended to prepare its graduates for careers in academic institutions, government (at all levels), and business and industry. Increasingly, a cross-national, cross-cultural understanding of political processes is essential for education, public policy, and commerce.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. The following department application materials must be uploaded into the online application:
  1. Graduate Record Examination (GRE) General Test scores
  2. Three letters of recommendation by recommendation providers
  3. A personal statement explaining why you want to enter the doctoral program
  4. A writing sample
2. Applicants must submit satisfactory Graduate Record Examination (GRE) General Test scores. The recommended score is a total of 160 on the verbal and 148 on the quantitative sections. We also pay attention to the analytical score. The applicant's undergraduate record is examined in conjunction with the GRE scores. The former is weighed more heavily

than the latter: an outstanding undergraduate record may well allow the admission of an applicant with GRE scores somewhat below the recommended level.

3. Applicants must possess a B.A. or equivalent from a regionally accredited institution with a minimum GPA of 3.30, or M.A. or equivalent from an accredited institution with a minimum GPA of 3.50. Under special circumstances the department may consider applicants with lower GPAs.
4. Applicants must have completed 12 credits of course work at the upper-division or graduate level in comparative politics and international relations combined. At the discretion of the department, students who lack such course work may be admitted on the condition that they remedy that deficiency.
5. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

Subplan 1 Requirements: Post - Bachelor's American Politics Track

Total Credits Required: 60

Course Requirements

#### **Methods in Political Science Courses – Credits: 6**

PSC 701 - Research Design and Methodology

PSC 702 - Advanced Quantitative Methods I

#### **Proseminar Courses – Credits: 12**

PSC 710R - Proseminar in American Politics

PSC 740 - Proseminar in International Relations

PSC 760R - Proseminar in Comparative Politics  
PSC 780R - Proseminar in Political Theory

### **American Politics Field Courses- 9**

PSC 712 - Intergovernmental Relations  
PSC 713 - American National Government: Principles  
PSC 714 - American National Government: Structure and Processes  
PSC 719 - Advanced Studies in American Politics  
PSC 721 - Public Policy Process  
PSC 722 - Environmental Resource Policy  
PSC 723 - Policy Analysis  
PSC 724 - Intelligence Policy  
PSC 725 - Policy Formation: The Problem of Legitimacy  
PSC 726 - National Security Policy  
PSC 729 - Advanced Studies in Public Policy  
PSC 731 - Civil Rights and Liberties  
PSC 732 - Constitutional Law  
PSC 733 - Public Law and Public Policy  
PSC 735 - Jurisprudence  
PSC 739 - Advanced Studies in Public Law

### **Second Field – Credits: 9**

Select one of the following second fields and complete three courses:

#### *Second Field Comparative Politics*

PSC 762 - African Politics  
PSC 764 - Latin American Politics  
PSC 767 - Comparative Democratization  
PSC 775 - Comparative Political Behavior  
PSC 779R - Advanced Studies in Comparative Politics

#### *Second Field International Relations*

PSC 741 - U.S. Foreign Policy  
PSC 746 - Middle East in World Affairs  
PSC 747 - Pacific Rim in World Affairs  
PSC 751 - International Political Economy  
PSC 754 - Global Governance  
PSC 755 - International Security  
PSC 759 - Advanced Studies in International Relations

#### *Second Field Political Theory*

PSC 781 - Political Theory before 1500  
PSC 782R - Political Theory from 1500 to 1900  
PSC 783 - Political Theory since 1900  
PSC 789R - Advanced Studies in Political Theory

### **Elective Courses – Credits: 12**

Complete 12 credits of 700-level Political Science courses, or other advisor-approved courses.

### **Dissertation – Credits: 12**

PSC 799 - Dissertation

### **Degree Requirements**

1. A minimum of 60 credits beyond the B.A. must be completed.
2. A minimum grade point average of 3.00 is required for all course work.
3. Research Tool: The research tool can be fulfilled with one of three options:
  1. Foreign Language: Students must demonstrate knowledge of the equivalent of two years of a single foreign language, through either an examination or 12 credits of college-level course work. Those credits would not count toward the required total. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted. The foreign language selected must be approved by the department as relevant for the student's research.
  2. Quantitative Methods: With approval from the department, a student may demonstrate advanced quantitative methods necessary for his or her doctoral research.
  3. Qualitative Methods: With approval from the department, a student may demonstrate advanced qualitative methods necessary for his or her doctoral research.
4. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted.

5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member outside the department will be assigned by the Graduate College. Another outside member may be added at the department's discretion.
6. Comprehensive written and oral examinations will be taken during or following the semester in which the student completes required course work. They will be divided into two parts, corresponding to the student's major fields. Within those fields the content of the examinations will be determined by the student's graduate coordinator.
7. The student will write the dissertation of original research and interpretation on a topic in the field of American politics.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 2 Requirements: Post-Bachelor's - Comparative Politics Track**

Total Credits Required: 60

#### Course Requirements

#### **Methods in Political Science Courses – Credits: 6**

PSC 701 - Research Design and Methodology  
PSC 702 - Advanced Quantitative Methods I

#### **Proseminar Courses – Credits: 12**

PSC 710R - Proseminar in American Politics  
PSC 740 - Proseminar in International Relations  
PSC 760R - Proseminar in Comparative Politics  
PSC 780R - Proseminar in Political Theory

#### **Comparative Field Courses:**

#### **Topics Course – Credits: 3**

Complete one of the following courses:

PSC 767 - Comparative Democratization  
PSC 775 - Comparative Political Behavior  
PSC 779R - Advanced Studies in Comparative Politics

#### **Area Studies Course – Credits: 3**

Complete one of the following courses:

PSC 761 - Middle Eastern and North African Politics  
PSC 762 - African Politics  
PSC 764 - Latin American Politics

#### **Field Course – Credits: 3**

Complete one of the following courses (excluding Topics and Area Studies courses already completed):

PSC 761 - Middle Eastern and North African Politics  
PSC 762 - African Politics  
PSC 764 - Latin American Politics  
PSC 767 - Comparative Democratization  
PSC 775 - Comparative Political Behavior  
PSC 779R - Advanced Studies in Comparative Politics

#### **Second Field – Credits: 9**

Select one of the following second fields and complete three courses:

#### *Second Field American Politics*

PSC 712 - Intergovernmental Relations  
PSC 713 - American National Government: Principles  
PSC 714 - American National Government: Structure and Processes  
PSC 719 - Advanced Studies in American Politics  
PSC 721 - Public Policy Process  
PSC 722 - Environmental Resource Policy

PSC 723 - Policy Analysis  
 PSC 724 - Intelligence Policy  
 PSC 725 - Policy Formation: The Problem of Legitimacy  
 PSC 726 - National Security Policy  
 PSC 729 - Advanced Studies in Public Policy  
 PSC 731 - Civil Rights and Liberties  
 PSC 732 - Constitutional Law  
 PSC 733 - Public Law and Public Policy  
 PSC 735 - Jurisprudence  
 PSC 739 - Advanced Studies in Public Law

*Second Field International Relations*

PSC 741 - U.S. Foreign Policy  
 PSC 746 - Middle East in World Affairs  
 PSC 747 - Pacific Rim in World Affairs  
 PSC 751 - International Political Economy  
 PSC 754 - Global Governance  
 PSC 755 - International Security  
 PSC 759 - Advanced Studies in International Relations

*Second Field Political Theory*

PSC 781 - Political Theory before 1500  
 PSC 782R - Political Theory from 1500 to 1900  
 PSC 783 - Political Theory since 1900  
 PSC 789R - Advanced Studies in Political Theory

**Elective Courses – Credits: 12**

Complete 12 credits of 700-level Political Science courses, or other advisor-approved courses.

**Dissertation – Credits: 12**

PSC 799 - Dissertation

Degree Requirements

1. A minimum of 60 credits beyond the B.A. must be completed.
2. A minimum grade point average of 3.00 is required for all course work.
3. Research Tool: The research tool can be fulfilled with one of three options:
  1. Foreign Language: Students must demonstrate knowledge of the equivalent of two years of a single foreign language, through either an

examination or 12 credits of college-level course work. Those credits would not count toward the required total. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted. The foreign language selected must be approved by the department as relevant for the student's research.

2. Quantitative Methods: With approval from the department, a student may demonstrate advanced quantitative methods necessary for his or her doctoral research.
3. Qualitative Methods: With approval from the department, a student may demonstrate advanced qualitative methods necessary for his or her doctoral research.
4. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member outside the department will be appointed to represent the Graduate College. Another outside member may be added at the department's discretion.
6. Comprehensive written and oral examinations will be taken during or following the semester in which the student completes required course work. They will be divided into two parts, corresponding to the student's major fields. Within those fields the content of the examinations will be determined by the student's graduate coordinator.
7. The student will write the dissertation of original research and interpretation on a topic in the field of comparative politics.

Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for

graduation up to two semesters prior to completing his/her degree requirements.

2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 3 Requirements: Post-Bachelor's - International Relations Track**

Total Credits Required: 60

Course Requirements

#### **Methods in Political Science Courses – Credits: 6**

PSC 701 - Research Design and Methodology

PSC 702 - Advanced Quantitative Methods I

#### **Proseminar Courses – Credits: 12**

PSC 710R - Proseminar in American Politics

PSC 740 - Proseminar in International Relations

PSC 760R - Proseminar in Comparative Politics

PSC 780R - Proseminar in Political Theory

#### **International Relations Field Courses – Credits: 9**

Complete three of the following courses:

PSC 741 - U.S. Foreign Policy

PSC 746 - Middle East in World Affairs

PSC 747 - Pacific Rim in World Affairs

PSC 751 - International Political Economy

PSC 754 - Global Governance

PSC 755 - International Security

PSC 759 - Advanced Studies in International Relations

#### **Second Field – Credits: 9**

Select one of the following second fields and complete three courses:

*Second Field American Politics*

PSC 712 - Intergovernmental Relations

PSC 713 - American National Government: Principles

PSC 714 - American National Government: Structure and Processes

PSC 719 - Advanced Studies in American Politics

PSC 721 - Public Policy Process

PSC 722 - Environmental Resource Policy

PSC 723 - Policy Analysis

PSC 724 - Intelligence Policy

PSC 725 - Policy Formation: The Problem of Legitimacy

PSC 726 - National Security Policy

PSC 729 - Advanced Studies in Public Policy

PSC 731 - Civil Rights and Liberties

PSC 732 - Constitutional Law

PSC 733 - Public Law and Public Policy

PSC 735 - Jurisprudence

PSC 739 - Advanced Studies in Public Law

*Second Field Comparative Politics*

PSC 762 - African Politics

PSC 764 - Latin American Politics

PSC 767 - Comparative Democratization

PSC 775 - Comparative Political Behavior

PSC 779R - Advanced Studies in Comparative Politics

*Second Field Political Theory*

PSC 781 - Political Theory before 1500

PSC 782R - Political Theory from 1500 to 1900

PSC 783 - Political Theory since 1900

PSC 789R - Advanced Studies in Political Theory

#### **Elective Courses – Credits: 12**

Complete 12 credits of 700-level Political Science courses, or other advisor-approved courses.

#### **Dissertation – Credits: 12**

PSC 799 - Dissertation

Degree Requirements

1. A minimum of 60 credits beyond the B.A. must be completed.
2. A minimum grade point average of 3.00 is required for all course work.

3. Research Tool: The research tool can be fulfilled with one of three options:
  1. Foreign Language: Students must demonstrate knowledge of the equivalent of two years of a single foreign language, through either an examination or 12 credits of college-level course work. Those credits would not count toward the required total. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted. The foreign language selected must be approved by the department as relevant for the student's research.
  2. Quantitative Methods: With approval from the department, a student may demonstrate advanced quantitative methods necessary for his or her doctoral research.
  3. Qualitative Methods: With approval from the department, a student may demonstrate advanced qualitative methods necessary for his or her doctoral research.
4. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member outside the department will be appointed to represent the Graduate College. Another outside member may be added at the department's discretion.
6. Comprehensive written examination will be taken during or following the semester in which the student completes required course work. They will be divided into two parts, corresponding to the student's major fields. Within those fields the content of the examinations will be determined by the student's graduate coordinator.
7. The student will write the dissertation of original research and interpretation on a topic in the field of international relations.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 4 Requirements: Post - Bachelor's Political Theory Track**

Total Credits Required: 60

#### Course Requirements

#### **Methods in Political Science Courses – Credits: 6**

PSC 701 - Research Design and Methodology  
PSC 702 - Advanced Quantitative Methods I

#### **Proseminar Courses – Credits: 12**

PSC 710R - Proseminar in American Politics  
PSC 740 - Proseminar in International Relations  
PSC 760R - Proseminar in Comparative Politics  
PSC 780R - Proseminar in Political Theory

#### **Political Theory Field Courses – Credits: 9**

Complete three of the following courses:

PSC 781 - Political Theory before 1500  
PSC 782R - Political Theory from 1500 to 1900  
PSC 783 - Political Theory since 1900  
PSC 789R - Advanced Studies in Political Theory

#### **Second Field – Credits: 9**

Select one of the following second fields and complete three courses:

#### *Second Field American Politics*

PSC 712 - Intergovernmental Relations  
PSC 713 - American National Government:



## Principles

PSC 714 - American National Government: Structure and Processes

PSC 719 - Advanced Studies in American Politics

PSC 721 - Public Policy Process

PSC 722 - Environmental Resource Policy

PSC 723 - Policy Analysis

PSC 724 - Intelligence Policy

PSC 725 - Policy Formation: The Problem of Legitimacy

PSC 726 - National Security Policy

PSC 729 - Advanced Studies in Public Policy

PSC 731 - Civil Rights and Liberties

PSC 732 - Constitutional Law

PSC 733 - Public Law and Public Policy

PSC 735 - Jurisprudence

PSC 739 - Advanced Studies in Public Law

## *Second Field Comparative Politics*

PSC 762 - African Politics

PSC 764 - Latin American Politics

PSC 767 - Comparative Democratization

PSC 775 - Comparative Political Behavior

PSC 779R - Advanced Studies in Comparative Politics

## *Second Field International Relations*

PSC 741 - U.S. Foreign Policy

PSC 746 - Middle East in World Affairs

PSC 747 - Pacific Rim in World Affairs

PSC 751 - International Political Economy

PSC 754 - Global Governance

PSC 755 - International Security

PSC 759 - Advanced Studies in International Relations

## **Elective Courses – Credits: 12**

Complete 12 credits of 700-level Political Science courses, or other advisor-approved courses.

## **Dissertation – Credits: 12**

PSC 799 - Dissertation

## Degree Requirements

1. A minimum of 60 credits beyond the B.A. must be completed.

2. A minimum grade point average of 3.00 is required for all course work.
3. Research Tool: The research tool can be fulfilled with one of three options:
  1. Foreign Language: Students must demonstrate knowledge of the equivalent of two years of a single foreign language, through either an examination or 12 credits of college-level course work. Those credits would not count toward the required total. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted. The foreign language selected must be approved by the department as relevant for the student's research.
  2. Quantitative Methods: With approval from the department, a student may demonstrate advanced quantitative methods necessary for his or her doctoral research.
  3. Qualitative Methods: With approval from the department, a student may demonstrate advanced qualitative methods necessary for his or her doctoral research.
4. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member outside the department will be appointed to represent the Graduate College. Another outside member may be added at the department's discretion.
6. Comprehensive written examination will be taken during or following the semester in which the student completes required course work. They will be divided into two parts, corresponding to the student's major fields. Within those fields the content of the examinations will be determined by the student's graduate coordinator.

- The student will write the dissertation of original research and interpretation on a topic in the field of political theory.

#### Graduation Requirements

- The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
- The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
- The student must submit his/her approved, properly formatted dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 5 Requirements: Post - Master's American Politics Track**

Total Credits Required: 48

#### Course Requirements

#### **Methods in Political Science Courses – Credits: 6**

PSC 701 - Research Design and Methodology  
PSC 702 - Advanced Quantitative Methods I

#### **Proseminar Courses – Credits: 12**

PSC 710R - Proseminar in American Politics  
PSC 740 - Proseminar in International Relations  
PSC 760R - Proseminar in Comparative Politics  
PSC 780R - Proseminar in Political Theory

#### **American Politics Field Courses – Credits: 9**

Complete three of the following courses:

PSC 712 - Intergovernmental Relations  
PSC 713 - American National Government: Principles  
PSC 714 - American National Government: Structure and Processes  
PSC 719 - Advanced Studies in American Politics  
PSC 721 - Public Policy Process  
PSC 722 - Environmental Resource Policy  
PSC 723 - Policy Analysis

PSC 724 - Intelligence Policy  
PSC 725 - Policy Formation: The Problem of Legitimacy  
PSC 726 - National Security Policy  
PSC 729 - Advanced Studies in Public Policy  
PSC 731 - Civil Rights and Liberties  
PSC 732 - Constitutional Law  
PSC 733 - Public Law and Public Policy  
PSC 735 - Jurisprudence  
PSC 739 - Advanced Studies in Public Law  
PSC 779R - Advanced Studies in Comparative Politics

#### **Second Field Courses – Credits: 9**

In consultation with your advisor select your second minor field of study and complete 6 credits from the appropriate list below.

#### *Second Field Comparative Politics*

PSC 762 - African Politics  
PSC 764 - Latin American Politics  
PSC 767 - Comparative Democratization  
PSC 775 - Comparative Political Behavior  
PSC 779R - Advanced Studies in Comparative Politics

#### *Second Field International Relations*

PSC 741 - U.S. Foreign Policy  
PSC 746 - Middle East in World Affairs  
PSC 747 - Pacific Rim in World Affairs  
PSC 751 - International Political Economy  
PSC 754 - Global Governance  
PSC 755 - International Security  
PSC 759 - Advanced Studies in International Relations

#### *Second Field Political Theory*

PSC 781 - Political Theory before 1500  
PSC 782R - Political Theory from 1500 to 1900  
PSC 783 - Political Theory since 1900  
PSC 789R - Advanced Studies in Political Theory

#### **Dissertation – Credits: 12**

PSC 799 - Dissertation

Degree Requirements

1. A minimum of 48 credits beyond the M.A. must be completed.
2. A minimum grade point average of 3.00 is required for all course work.
3. Research Tool: The research tool can be fulfilled with one of three options:
  1. Foreign Language: Students must demonstrate knowledge of the equivalent of two years of a single foreign language, through either an examination or 12 credits of college-level course work. Those credits would not count toward the required total. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted. The foreign language selected must be approved by the department as relevant for the student's research.
  2. Quantitative Methods: With approval from the department, a student may demonstrate advanced quantitative methods necessary for his or her doctoral research.
  3. Qualitative Methods: With approval from the department, a student may demonstrate advanced qualitative methods necessary for his or her doctoral research.
4. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member outside the department will be appointed to represent the Graduate College. Another outside member may be added at the department's discretion.
6. Comprehensive written and oral examinations will be taken during or following the semester in which the student completes required course work. They will be divided into two parts, corresponding to the student's major fields. Within those fields the content of the examinations will

be determined by the student's graduate coordinator.

7. The student will write the dissertation of original research and interpretation on a topic in the field of American politics.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, a properly formatted dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 6 Requirements: Post-Master's - Comparative Politics Track**

Total Credits Required: 48

#### Course Requirements

#### **Methods in Political Science Courses – Credits: 6**

PSC 701 - Research Design and Methodology

PSC 702 - Advanced Quantitative Methods I

#### **Proseminar Courses – Credits: 12**

PSC 710R - Proseminar in American Politics

PSC 740 - Proseminar in International Relations

PSC 760R - Proseminar in Comparative Politics

PSC 780R - Proseminar in Political Theory

#### **Comparative Field Courses:**

#### **Topics Course – Credits: 3**

Complete one of the following courses:

PSC 767 - Comparative Democratization

PSC 775 - Comparative Political Behavior

PSC 779R - Advanced Studies in Comparative Politics

**Area Studies Course – Credits: 3**

Complete one of the following courses:

PSC 761 - Middle Eastern and North African Politics  
 PSC 762 - African Politics  
 PSC 764 - Latin American Politics

**Field Course – Credits: 3**

Complete one of the following courses (excluding Topics and Area Studies courses already completed):

PSC 761 - Middle Eastern and North African Politics  
 PSC 762 - African Politics  
 PSC 764 - Latin American Politics  
 PSC 767 - Comparative Democratization  
 PSC 775 - Comparative Political Behavior  
 PSC 779R - Advanced Studies in Comparative Politics

**Second Field – Credits: 9**

Select one of the following second fields and complete three courses:

*Second Field American Politics*

PSC 712 - Intergovernmental Relations  
 PSC 713 - American National Government: Principles  
 PSC 714 - American National Government: Structure and Processes  
 PSC 719 - Advanced Studies in American Politics  
 PSC 721 - Public Policy Process  
 PSC 722 - Environmental Resource Policy  
 PSC 723 - Policy Analysis  
 PSC 724 - Intelligence Policy  
 PSC 725 - Policy Formation: The Problem of Legitimacy  
 PSC 726 - National Security Policy  
 PSC 729 - Advanced Studies in Public Policy  
 PSC 731 - Civil Rights and Liberties  
 PSC 732 - Constitutional Law  
 PSC 733 - Public Law and Public Policy  
 PSC 735 - Jurisprudence  
 PSC 739 - Advanced Studies in Public Law

*Second Field International Relations*

PSC 741 - U.S. Foreign Policy  
 PSC 746 - Middle East in World Affairs  
 PSC 747 - Pacific Rim in World Affairs  
 PSC 751 - International Political Economy  
 PSC 754 - Global Governance  
 PSC 755 - International Security  
 PSC 759 - Advanced Studies in International Relations

*Second Field Political Theory*

PSC 781 - Political Theory before 1500  
 PSC 782R - Political Theory from 1500 to 1900  
 PSC 783 - Political Theory since 1900  
 PSC 789R - Advanced Studies in Political Theory

**Dissertation – Credits: 12**

PSC 799 - Dissertation

## Degree Requirements

1. A minimum of 48 credits beyond the M.A. must be completed and the department will determine the distribution of the 42 credits, based on the student's transcripts of prior work.
2. A minimum grade point average of 3.00 is required for all course work.
3. Foreign language requirement: Students must demonstrate knowledge of the equivalent of two years of a single foreign language, through either an examination or 12 credits of college-level course work. Those credits would not count toward the required total. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted.
4. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member outside the department will be assigned by the Graduate College. Another outside member may be added at the department's discretion.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member

outside the department will be appointed to represent the Graduate College. Another outside member may be added at the department's discretion.

6. Comprehensive written examination will be taken during or following the semester in which the student completes required course work. They will be divided into two parts, corresponding to the student's major fields. Within those fields the content of the examinations will be determined by the student's graduate coordinator.
7. The student will write the dissertation of original research and interpretation on a topic in the field of comparative politics.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 7 Requirements: Post-Master's - International Relations Track**

Total Credits Required: 48

#### Course Requirements

#### **Methods in Political Science Courses – Credits: 6**

PSC 701 - Research Design and Methodology  
PSC 702 - Advanced Quantitative Methods I

#### **Proseminar Courses – Credits: 12**

PSC 710R - Proseminar in American Politics  
PSC 740 - Proseminar in International Relations  
PSC 760R - Proseminar in Comparative Politics  
PSC 780R - Proseminar in Political Theory

#### **International Relations Field Courses – Credits: 9**

Complete three of the following courses:

PSC 741 - U.S. Foreign Policy  
PSC 746 - Middle East in World Affairs  
PSC 747 - Pacific Rim in World Affairs  
PSC 751 - International Political Economy  
PSC 754 - Global Governance  
PSC 755 - International Security  
PSC 759 - Advanced Studies in International Relations

#### **Second Field – Credits: 9**

Select one of the following second fields and complete three courses:

##### *Second Field American Politics*

PSC 712 - Intergovernmental Relations  
PSC 713 - American National Government: Principles  
PSC 714 - American National Government: Structure and Processes  
PSC 719 - Advanced Studies in American Politics  
PSC 721 - Public Policy Process  
PSC 722 - Environmental Resource Policy  
PSC 723 - Policy Analysis  
PSC 724 - Intelligence Policy  
PSC 725 - Policy Formation: The Problem of Legitimacy  
PSC 726 - National Security Policy  
PSC 729 - Advanced Studies in Public Policy  
PSC 731 - Civil Rights and Liberties  
PSC 732 - Constitutional Law  
PSC 733 - Public Law and Public Policy  
PSC 735 - Jurisprudence  
PSC 739 - Advanced Studies in Public Law

##### *Second Field Comparative Politics*

PSC 762 - African Politics  
PSC 764 - Latin American Politics  
PSC 767 - Comparative Democratization  
PSC 775 - Comparative Political Behavior  
PSC 779R - Advanced Studies in Comparative Politics

##### *Second Field Political Theory*

PSC 781 - Political Theory before 1500  
PSC 782R - Political Theory from 1500 to 1900  
PSC 783 - Political Theory since 1900  
PSC 789R - Advanced Studies in Political Theory

### **Dissertation – Credits: 12**

PSC 799 - Dissertation

#### Degree Requirements

1. A minimum of 48 credits beyond the M.A. must be completed.
2. A minimum grade point average of 3.00 is required for all course work.
3. Research Tool: The research tool can be fulfilled with one of three options:
  1. Foreign Language: Students must demonstrate knowledge of the equivalent of two years of a single foreign language, through either an examination or 12 credits of college-level course work. Those credits would not count toward the required total. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted. The foreign language selected must be approved by the department as relevant for the student's research.
  2. Quantitative Methods: With approval from the department, a student may demonstrate advanced quantitative methods necessary for his or her doctoral research.
  3. Qualitative Methods: With approval from the department, a student may demonstrate advanced qualitative methods necessary for his or her doctoral research.
4. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member outside the department will be appointed to represent the Graduate College. Another

outside member may be added at the department's discretion.

6. Comprehensive written examination will be taken during or following the semester in which the student completes required course work. They will be divided into two parts, corresponding to the student's major fields. Within those fields the content of the examinations will be determined by the student's graduate coordinator.
7. The student will write the dissertation of original research and interpretation on a topic in the field of international relations.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 8 Requirements: Post - Master's Political Theory Track**

Total Credits Required: 48

#### Course Requirements

### **Methods in Political Science Courses – Credits: 6**

PSC 701 - Research Design and Methodology  
PSC 702 - Advanced Quantitative Methods I

### **Proseminar Courses – Credits: 12**

PSC 710R - Proseminar in American Politics  
PSC 740 - Proseminar in International Relations  
PSC 760R - Proseminar in Comparative Politics  
PSC 780R - Proseminar in Political Theory

### **Political Theory Field Courses – Credits: 9**

Complete three of the following courses:

PSC 781 - Political Theory before 1500  
PSC 782R - Political Theory from 1500 to 1900  
PSC 783 - Political Theory since 1900  
PSC 789R - Advanced Studies in Political Theory

### **Second Field – Credits: 9**

Select one of the following second fields and complete three courses:

#### *Second Field American Politics*

PSC 712 - Intergovernmental Relations  
PSC 713 - American National Government: Principles  
PSC 714 - American National Government: Structure and Processes  
PSC 719 - Advanced Studies in American Politics  
PSC 721 - Public Policy Process  
PSC 722 - Environmental Resource Policy  
PSC 723 - Policy Analysis  
PSC 724 - Intelligence Policy  
PSC 725 - Policy Formation: The Problem of Legitimacy  
PSC 726 - National Security Policy  
PSC 729 - Advanced Studies in Public Policy  
PSC 731 - Civil Rights and Liberties  
PSC 732 - Constitutional Law  
PSC 733 - Public Law and Public Policy  
PSC 735 - Jurisprudence  
PSC 739 - Advanced Studies in Public Law

#### *Second Field Comparative Politics*

PSC 762 - African Politics  
PSC 764 - Latin American Politics  
PSC 767 - Comparative Democratization  
PSC 775 - Comparative Political Behavior  
PSC 779R - Advanced Studies in Comparative Politics

#### *Second Field International Relations*

PSC 741 - U.S. Foreign Policy  
PSC 746 - Middle East in World Affairs  
PSC 747 - Pacific Rim in World Affairs  
PSC 751 - International Political Economy  
PSC 754 - Global Governance  
PSC 755 - International Security

PSC 759 - Advanced Studies in International Relations

### **Dissertation – Credits: 12**

PSC 799 - Dissertation

#### Degree Requirements

1. A minimum of 48 credits beyond the M.A. must be completed.
2. A minimum grade point average of 3.00 is required for all course work.
3. Research Tool: The research tool can be fulfilled with one of three options:
  1. Foreign Language: Students must demonstrate knowledge of the equivalent of two years of a single foreign language, through either an examination or 12 credits of college-level course work. Those credits would not count toward the required total. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted. The foreign language selected must be approved by the department as relevant for the student's research.
  2. Quantitative Methods: With approval from the department, a student may demonstrate advanced quantitative methods necessary for his or her doctoral research.
  3. Qualitative Methods: With approval from the department, a student may demonstrate advanced qualitative methods necessary for his or her doctoral research.
4. This requirement must be met prior to admission to candidacy. No grade below "B" will be accepted.
5. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member outside the department will be selected to represent the Graduate College. Another outside member may be added at the department's discretion.

6. . Comprehensive written and oral examinations will be taken during or following the semester in which the student completes required course work. They will be divided into two parts, corresponding to the student's major fields. Within those fields the content of the examinations will be determined by the student's graduate coordinator.
7. The student will write the dissertation of original research and interpretation on a topic in the field of political theory.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

## Master of Arts - Political Science

### Plan Description

The Department of Political Science offers a general Master of Arts degree. Students tailor their programs with the assistance of the department's graduate coordinator. Programs are flexible, and students may take advantage of individualized instruction. Advisory committees will approve programs that provide an appropriate degree of specialization in one of the fields of political science with supporting studies in others.

Students can pursue graduate education in the areas of American politics/public policy/public law, comparative politics, international relations, and political theory. Students can normally expect to complete the program in from one-and-a-half to two years. The department offers a number of graduate assistantships as well as internship opportunities at the local, state, and federal levels, where students can obtain on-the-job experience. The graduate program in political science is designed to prepare graduate students for doctoral studies, teaching positions at secondary schools and community colleges, or employment by government agencies, research centers, or private industry. Our graduates have gone on to executive positions in national, state, and local governments and to doctoral programs at top schools throughout the country.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. The following department application materials must be uploaded into the online application:
  1. Graduate Record Examination (GRE) General Test scores
  2. Two letters of recommendation by recommendation providers



3. A personal statement explaining why you want to enter the Master's program
2. Applicants must possess a baccalaureate from a regionally accredited institution with a minimum GPA of 3.00.
3. Applicants must submit satisfactory GRE General Test scores. Minimum scores are 153 on the verbal and 144 on the quantitative sections of the exam; we also consider the analytical writing score. In unusual circumstances, students who do not meet the above criteria may still be admitted.
4. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 30

Course Requirements

#### **Methods in Political Science – Credits: 6**

PSC 701 - Research Design and Methodology  
PSC 702 - Advanced Quantitative Methods I

#### **Proseminar Courses – Credits: 12**

PSC 710R - Proseminar in American Politics  
PSC 740 - Proseminar in International Relations  
PSC 760R - Proseminar in Comparative Politics  
PSC 780R - Proseminar in Political Theory

#### **Major Field of Study Courses – Credits: 6**

In consultation with your advisor select and complete 6 credits from one of the areas listed below:

##### *American Politics*

PSC 712 - Intergovernmental Relations  
PSC 713 - American National Government:

##### Principles

PSC 714 - American National Government: Structure and Processes  
PSC 719 - Advanced Studies in American Politics  
PSC 721 - Public Policy Process  
PSC 722 - Environmental Resource Policy  
PSC 723 - Policy Analysis  
PSC 724 - Intelligence Policy  
PSC 725 - Policy Formation: The Problem of Legitimacy  
PSC 726 - National Security Policy  
PSC 729 - Advanced Studies in Public Policy  
PSC 731 - Civil Rights and Liberties  
PSC 732 - Constitutional Law  
PSC 733 - Public Law and Public Policy  
PSC 735 - Jurisprudence  
PSC 739 - Advanced Studies in Public Law

##### *International Relations*

PSC 741 - U.S. Foreign Policy  
PSC 746 - Middle East in World Affairs  
PSC 747 - Pacific Rim in World Affairs  
PSC 751 - International Political Economy  
PSC 754 - Global Governance  
PSC 755 - International Security  
PSC 759 - Advanced Studies in International Relations

##### *Comparative Politics*

PSC 761 - Middle Eastern and North African Politics  
PSC 762 - African Politics  
PSC 764 - Latin American Politics  
PSC 767 - Comparative Democratization  
PSC 775 - Comparative Political Behavior  
PSC 779R - Advanced Studies in Comparative Politics

##### *Political Theory*

PSC 781 - Political Theory before 1500  
PSC 782R - Political Theory from 1500 to 1900  
PSC 783 - Political Theory since 1900  
PSC 789R - Advanced Studies in Political Theory

#### **Directed Reading – Credits: 6**

PSC 795 - Directed Readings in Political Science

#### Degree Requirements

1. PSC 701 – Research Design and Methodology must be completed among the first 12 credits.
2. New students are assigned to the graduate coordinator for advising. Students will declare an advisor by submitting the Advisor Declaration Form to the Department before the completion of 12 credit hours. Each student must consult with his or her advisor and the graduate coordinator every semester before enrolling in courses.
3. A minimum of 30 credits to be completed must be pre-approved by the graduate coordinator to be counted toward the M.A. Each student must complete the six core courses (see below) as well as six credits (two courses) in one area of Political Science (American politics, comparative politics, international relations, or political theory); and six credits of PSC 795.
4. With department approval, students may complete a maximum of 6 graduate credits from outside Political Science. Students must obtain the permission of the Political Science graduate coordinator prior to enrolling in courses outside of Political Science otherwise the courses will not count toward the M.A. in Political Science. Courses from outside the Department that include an undergraduate component cannot be used for the degree. Independent Study (PSC 791) cannot be used to fulfill a core or elected requirement.
5. The candidate must maintain a minimum 3.0 GPA at all times in order to remain in good standing. Only those courses in which a student receives a grade of B or better may be used for graduate credit.
6. In addition to the required coursework, in consultation with his or her advisor, a student will prepare and present a professional paper. The professional paper will be supervised by a committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion.

Please see Graduate College policy for committee appointment guidelines.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his or her degree requirements.
2. The student must submit and successfully defend his or her professional paper by the posted deadline. The defense must be advertised and is open to the public.

## Political Science Courses

### PSC 701 - Research Design and Methodology

Credits 3

Exposes graduate students to a body of literature and a set of ideas about doing sound social science research, either applied or non-applied. Emphasis on injecting scientific and theoretical rigor into the investigation of political phenomena.

**Prerequisites** Graduate standing.

### PSC 702 - Advanced Quantitative Methods I

Credits 3

Review of basic statistical techniques and in-depth treatment of bivariate and multivariate regression analysis, including regression diagnostics and remedies for assumption violations. Also introduces advanced statistical estimation techniques including robust regression, time-series analysis, and maximum likelihood estimation.

**Prerequisites** PSC 701 or equivalent and graduate standing.

### PSC 703 - Advanced Quantitative Methods II

Credits 3

This course builds upon PSC 701 and PSC 702 to examine advanced research methodological techniques used in the social sciences including maximum likelihood estimation, time series analysis, and formal modeling.

**Prerequisites** PSC 701 and PSC 702

### PSC 704 - Advanced Qualitative Methods

Credits 3

This course examines advanced qualitative research techniques used in the social sciences including inference, causality, measurement, process tracing, and typological theory.

**Prerequisites** PSC 701 and PSC 702

### PSC 710R - Proseminar in American Politics

Credits 3

Concepts, methods, and theories in American politics. Particular attention is devoted to the presentation and analysis of classic books and articles in the field so as to provide students with the requisite foundation for advanced study.

### PSC 712 - Intergovernmental Relations

Credits 3

Covers political, constitutional, fiscal, and regulatory aspects of the federal, state, and local governments. Emphasis on relations of state and local governments to the federal government. Satisfies Nevada Constitution requirement.

**Prerequisites** Graduate standing.

### PSC 713 - American National Government:

Principles

Credits 3

Addresses the theoretical principles underlying—and disputed within—the American political regime since the Founding. Readings include writings by American statesmen, political philosophers, and scholars representative of key perspectives in the liberal-constitutional tradition. Satisfies U.S. Constitution requirement.

**Formerly** (PSC 710)

**Prerequisites** Graduate standing.

### PSC 714 - American National Government: Structure and Processes

Credits 3

American political institutions, public opinion, voting behavior, and the making of public policy.

**Formerly** PSC 711

**Prerequisites** Graduate standing.

### PSC 719 - Advanced Studies in American Politics

Credits 3

Selected topics in American politics. Students are advised to take PSC 710R before this course.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** PSC 701 and graduate standing.

### PSC 721 - Public Policy Process

Credits 3

Examines the roles of the legislative and executive branches of government in public policy formation and implementation. Surveys empirical techniques used in the field, assesses the impact of ethical theories on the public policy process, and explores selected policy issues in detail.

**Same as** (EPS 747)

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing.

PSC 722 - Environmental Resource Policy  
Credits 3

Condition of the global environment, a topic which has risen from relative obscurity after World War II to a topic high on the national and global agenda. Considers the socio-political aspects related to the environment and natural resources, familiarizing students with the policy process and institutions predominant in this area.

**Prerequisites** Graduate standing.

PSC 723 - Policy Analysis  
Credits 3

Aims to enable students to understand and evaluate a range of methods used by professional policy analysts, and to present some of the ethical issues surrounding this practice.

**Same as** (EPS 710)

**Notes** Each student is required to locate and critique some examples of policy analysis in his or her own area of interest.

**Prerequisites** Graduate standing.

PSC 724 - Intelligence Policy  
Credits 3

Focuses primarily on the US intelligence community as it has evolved since World War II. Emphasis on analysis, overt action, and counterintelligence. Congressional and judicial controls examined. Attention also given to foreign intelligence agencies; terrorism.

**Prerequisites** Graduate standing.

PSC 725 - Policy Formation: The Problem of Legitimacy  
Credits 3

What makes a policy legitimate? Analyzes the process of making public policy in terms of such ethical considerations as public versus private good, legality versus morality, accountability of policy makers, enforcement of decisions, and evaluation of programs.

**Formerly** (PSC 720)

**Same as** (EPS 743)

**Prerequisites** Graduate standing.

PSC 726 - National Security Policy  
Credits 3

Focuses on national security issues confronting the U.S. including the conduct of conventional warfare,

nuclear strategy, deterrence, arms control, Strategic Defense Initiative, alliance formation, and other topics.

**Prerequisites** Graduate standing.

PSC 729 - Advanced Studies in Public Policy  
Credits 3

Selected topics in public policy. May be repeated to a maximum of six credits.

**Prerequisites** PSC 701 and graduate standing.

PSC 731 - Civil Rights and Liberties  
Credits 3

Analysis of the substance and literature on the topic of civil rights and civil liberties in the United States.

**Prerequisites** Graduate standing.

PSC 732 - Constitutional Law  
Credits 3

Study of the U.S. Constitution with emphasis on its interpretation, the power of the judiciary, Congress, and executive. Attention also devoted to federal-state relations and the Commerce Clause. Satisfies the U.S. Constitution requirement.

**Formerly** (PSC 730)

**Prerequisites** Graduate standing.

PSC 733 - Public Law and Public Policy  
Credits 3

Focuses on the role of the courts in shaping the different policy areas in the American political system.

**Same as** (EPS 745)

**Prerequisites** Graduate standing.

PSC 735 - Jurisprudence  
Credits 3

Study of the role of morality in the historical and recent debates over the nature of law including: Is a conceptual separation of law and morality desirable?; legal validity; the justification of the judicial decision; finally, the importance of jurisprudence in helping to resolve public policy disputes.

**Same as** (EPS 746)

**Prerequisites** Graduate standing.

PSC 739 - Advanced Studies in Public Law  
Credits 3

Selected topics in public law. Students are advised to take PSC 710R before this course.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** PSC 701 and graduate standing.

PSC 740 - Proseminar in International Relations  
Credits 3

Concepts, methods, and theories in international relations. Application of these tools to contemporary issues in international politics and economics. Conflict and peace studies, the North-South dialogue, and futures studies.

**Prerequisites** Graduate standing.

PSC 741 - U.S. Foreign Policy  
Credits 3

Examines the dynamics of the foreign policy decision-making process, surveys the historical evolution of American foreign policy, and addresses its contemporary issues. Impacts of the changing faces of communism, third-world nationalism, and global economic and political interdependencies on U.S. foreign policy studied in detail.

**Prerequisites** Graduate standing.

PSC 746 - Middle East in World Affairs  
Credits 3

Develops a framework for the study of international relations of the Middle East; examines domestic, regional and global determinants of external politics in the region; analyzes its great powers' interests and policies (strategic, military, economic, etc.) in this area; and studies intraregional problems including the Arab-Israeli imbroglio, inter-Arab conflicts, and turmoil in Lebanon.

**Prerequisites** Graduate standing.

PSC 747 - Pacific Rim in World Affairs  
Credits 3

Examines international relations of the Pacific Rim, a key region in contemporary international politics. Analyzes diplomatic/political, military/security, and economic/trade issues in the region, and assesses the dynamics and interdependence of the region and the region's significance to international politics in the twenty-first century.

**Prerequisites** Graduate standing.

PSC 751 - International Political Economy  
Credits 3

Examines the concepts, methods, and theories used in the study of the politics of international economic

relations. Major theories of international political economy are examined and applied to the study of international trade, international capital flows, economic development, globalization, regional integration, labor, and the environment.

PSC 754 - Global Governance  
Credits 3

Examines the theoretical foundations for world order with attention to international organizations, collective security, regional and global integration, transnational capital, social movements, human security, and states.

PSC 755 - International Security  
Credits 3

This course will examine contemporary threats to international security and peace (e.g., terrorism, conflict) in order to explore the different methods of preventing, managing, and resolving them.

PSC 759 - Advanced Studies in International Relations  
Credits 3

Selected topics in international relations. Students are advised to take PSC 740 before this course.

**Formerly** (PSC 749)

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** PSC 701 and graduate standing.

PSC 760R - Proseminar in Comparative Politics  
Credits 3

Concepts, methods, and theories in comparative politics. Topics include such as political development, ethnicity, leadership, and political economy.

**Formerly** (PSC 750)

**Prerequisites** Graduate standing.

PSC 761 - Middle Eastern and North African Politics  
Credits 3

Provides students with in-depth analysis of the political institutions, processes, and policies in the Middle East and North Africa.

**Formerly** (PSC 760)

**Prerequisites** Graduate standing.

PSC 762 - African Politics  
Credits 3

This course surveys the broad themes and debates in

the study of the politics of sub-Saharan Africa. The historical and geographic forces that have shaped the African state are explored. The nature and performance of the post-colonial state and the attempts at economic and political reform are examined.

PSC 763 - European Politics  
Credits 3

This course covers the politics of Europe, home to many of the world's democracies and the European Union. Students will become familiar with the major political (including electoral and legislative) and economic dynamics in Europe.

PSC 764 - Latin American Politics  
Credits 3

Provides students with an understanding of regime change, party systems, conventional participation, and social movements. Includes coverage of advanced theories of comparative politics as applied to the region.

PSC 767 - Comparative Democratization  
Credits 3

This course explores the phenomenon of democratization, with a particular focus on the cases of democratization that have occurred since the start of the third wave of democratization in the mid-1970s. The different theoretical approaches to explaining both the transition to and consolidation of democracy will be examined.

PSC 775 - Comparative Political Behavior  
Credits 3

Examination of the antecedents and consequences of public opinion and political behavior from a comparative perspective, with emphasis given to democratic regimes.

PSC 779R - Advanced Studies in Comparative Politics  
Credits 3

Selected topics in comparative politics. Students are advised to take PSC 760R before this course.

**Formerly** (PSC 769)

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** PSC 701 and graduate standing.

PSC 780R - Proseminar in Political Theory  
Credits 3

Concepts and issues in political theory, with emphasis on major texts in the history of political philosophy.

**Formerly** (PSC 771)

**Prerequisites** Graduate standing.

PSC 781 - Political Theory before 1500  
Credits 3

Readings from works by selected political theorists of the ancient and medieval periods. Authors may include Thucydides, Xenophon, Plato, Aristotle, Cicero, Al-Farabi, Maimonides, and Thomas Aquinas.

PSC 782R - Political Theory from 1500 to 1900  
Credits 3

Readings from works by selected political theorists of the early and late modern periods. Authors may include Machiavelli, Hobbes, Locke, Rousseau, Kant, Hegel, J. S. Mill, Marx, and Nietzsche.

PSC 783 - Political Theory since 1900  
Credits 3

Readings from works by selected political theorists since 1900. Authors may include Dewey and Heidegger.

PSC 789R - Advanced Studies in Political Theory  
Credits 3

Selected topics in political theory. Students are advised to take PSC 780R before this course.

**Formerly** (PSC 779)

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing.

PSC 790 - Studies in Political Science  
Credits 3

Analysis of the research and literature on a selected topic in political science. Specific topic announced each semester.

**Notes** May be repeated to a maximum of six credits.

PSC 791 - M.A. Independent Study in Political Science  
Credits 1-3

Program of independent reading and research in political science for M.A. students, to be selected in

consultation with an instructor before registration.  
May be repeated to a maximum of six credits with consent of instructor.

**Prerequisites** Consent of instructor.

PSC 792 - Ph.D. Independent Study in Political Science

Credits 1-3

Program of independent reading and research in political science for Ph.D. students, to be selected in consultation with an instructor before registration.  
May be repeated to a maximum of six credits with consent of instructor.

**Prerequisites** Consent of instructor.

PSC 793 - Internship in Political Science

Credits 1 – 3

Graduate students have a work assignment in an executive, legislative, or judicial setting, political party, or interest group institution at the national, state, or local governmental level and make regular reports on work activities and assigned readings.  
Substantial written work required.

**Formerly** (PSC 780)

**Notes** May be repeated to a maximum of six credits with consent of instructor.

PSC 795 - Directed Readings in Political Science

Credits 1 to 6

Program of assigned reading and preparation of professional paper.

**Formerly** (PSC 782)

**Notes** May be repeated to a maximum of 6 credits.

**Grading** TDX

**Prerequisites** Department approval.

PSC 796 - Thesis

Credits 3 – 6

**Formerly** (PSC 789)

**Notes** May be repeated but only six credits applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** Departmental approval.

PSC 799 - Dissertation

Credits 3-12

May be repeated but only 12 credits may be applied toward degree.

**Prerequisites** Passing grade on comprehensive examinations.

## Psychology

Welcome to the Department of Psychology. Psychology is the science of behavior. The department is a vibrant entity with a rich tradition of excellence in research and teaching as well as service to the university, the community, and the field of psychology. Our faculty members conduct cutting-edge research in clinical, cognitive, and developmental psychology as well as neuroscience and quantitative methods. Our research is enhanced by great diversity in our undergraduate student population and in our community in Las Vegas. The department also has connections with many organizations that include private schools, Clark County agencies, and mental health, medical, and neuroscience centers.

*Christopher A. Kearney, Ph.D., Chair*

*Daniel Allen, Ph.D., Clinical Studies Graduate Coordinator*

*Jennifer Rennels, Ph.D., Experimental Studies Graduate Coordinator*

*Kimberly A. Barchard, Ph.D., Quantitative Psychology Graduate Coordinator*

## Psychology Faculty

### Chair

**Kearney, Christopher A.** - *Full Graduate Faculty*  
Distinguished Professor; B.A., State University of  
New York at Binghamton; M.A., Ph.D., State  
University of New York at Albany. *Rebel since 1990.*

### Graduate Coordinators

**Allen, Daniel N.** (Clinical) - *Full Graduate Faculty*  
Professor; B.A., Moody Bible Institute; M.S., Eastern  
Washington University; Ph.D., University of South  
Dakota. *Rebel since 1999.*

**Rennels, Jennifer** (Experimental) - *Full Graduate*  
*Faculty*  
Associate Professor; B.S., Ithaca College; M.A.,  
Ph.D., University of Texas, Austin. *Rebel since 2003.*

### Graduate Faculty

**Ashcraft, Mark H.** - *Full Graduate Faculty*  
Professor; B.A., Grinnell College, M.A., Ph.D.,  
University of Kansas. *Rebel since 2005.*

**Barchard, Kimberly A.** - *Full Graduate Faculty*  
Associate Professor; B.S., Simon Fraser University;  
M.A., Ph.D., University of British Columbia. *Rebel*  
*since 2001.*

**Benning, Stephen D.** - *Full Graduate Faculty*  
Assistant Professor; B.A., Rice University; M.A.,  
Ph.D., University of Minnesota. *Rebel since 2012.*

**Copeland, David** - *Full Graduate Faculty*  
Associate Professor; B.A., Cleveland State  
University; Ph.D., University of Notre Dame. *Rebel*  
*since 2006.*

**Culbert, Kristen M.** - *Full Graduate Faculty*  
Assistant Professor; B.A., M.A., Ph.D., Michigan  
State University. *Rebel since 2015.*

**Donohue, Bradley C.** - *Full Graduate Faculty*  
Professor; B.A., University of Kansas; Ph.D., Nova  
Southeastern University. *Rebel since 1998.*

**Freeman, Andrew J.** - *Full Graduate Faculty*  
*Assistant Professor*; B.S., Denison University; M.A.,

Ph.D., University of North Carolina at Chapel  
Hill. *Rebel since 2014.*

**Hannon, Erin E.** - *Full Graduate Faculty*  
Associate Professor; B.A., New College of Florida;  
Ph.D., Cornell University. *Rebel since 2007.*

**Heavey, Christopher L.** - *Full Graduate Faculty*  
Associate Professor; B.A., University of California,  
Santa Cruz; M.A., Ph.D., University of California,  
Los Angeles. *Rebel since 1992.*

**Hines, Rochelle M.** - *Full Graduate Faculty*  
Assistant Professor; B.S., University of Lethbridge;  
Ph.D., University of British Columbia. *Rebel since*  
*2015.*

**Holland, Jason M.**  
Assistant Professor; B.A., University of Tennessee;  
M.S., Ph.D., University of Memphis. *Rebel since*  
*2011.*

**Hurlburt, Russell T.** - *Full Graduate Faculty*  
Professor; B.S.E., Princeton University; M.S.,  
University of New Mexico; Ph.D., University of  
South Dakota. *Rebel since 1976.*

**Hyman, James M.** - *Full Graduate Faculty*  
Assistant Professor; B.S., Virginia Commonwealth  
University; Ph.D., Boston University. *Rebel since*  
*2014.*

**Kinney, Jefferson W.** - *Full Graduate Faculty*  
Associate Professor; B.S., M.S., Ph.D., Colorado  
State University. *Rebel since 2007.*

**Meana, Marta** - *Full Graduate Faculty*  
Professor; B.A., M.A., Ph.D., McGill  
University. *Rebel since 1997.*

**Parks, Colleen M.** - *Full Graduate Faculty*  
Associate Professor; B.A., Trinity University; M.S.,  
Ph.D., Georgia Institute of Technology. *Rebel since*  
*2008.*

**Paul, Michelle G.** - *Full Graduate Faculty*  
*Associate Professor in Residence*; B.A., Colgate  
University; Ph.D., University of Vermont. *Rebel*  
*since 2004.*



**Pritchard, Laurel M.** - *Full Graduate Faculty*  
Assistant Professor; B.S., University of Findlay;  
Ph.D., University of Cincinnati. *Rebel since 2007.*

**Rennels, Jennifer L.** - *Full Graduate Faculty*  
Associate Professor; B.S., Ithaca College; M.A.,  
Ph.D., University of Texas, Austin. *Rebel since 2003.*

**Robnett, Rachael.** - *Full Graduate Faculty*  
Assistant Professor; B.A., University of Northern  
Iowa; M.A., Ph.D., University of California, Santa  
Cruz. *Rebel since 2013.*

**Silver, N. Clayton** - *Full Graduate Faculty*  
Associate Professor; B.A., University of Cincinnati;  
M.S., Ph.D., Tulane University. *Rebel since 1997.*

**Snyder, Joel S.** - *Full Graduate Faculty*  
Associate Professor; B.A., University of California,  
San Diego; Ph.D., Cornell University. *Rebel since  
2007.*

#### **Professors Emeriti**

**Ferraro, Douglas P.**  
Emeritus Professor; A.B., M.A., Ph.D., Columbia  
University. *UNLV Emeritus 1996-2008.*

**Hess, Harrie F.**  
Emeritus Professor; B.A., University of Nevada,  
Reno; M.A., Ph.D., University of Colorado.  
*UNLV Emeritus 1965-1989.*

**Kern, Jeffrey M.**  
Emeritus Associate Professor; B.A., Queens College;  
Ph.D. State University of New York at Stony Brook.  
*UNLV Emeritus 1990-2011.*

**Knapp, Terry J.**  
Emeritus Professor; B.A., B.S., University of Iowa;  
M.A., University of Northern Iowa; Ph.D., University  
of Nevada, Reno. *UNLV Emeritus 1976-2007.*

**Rasmussen, Charles T.**  
Emeritus Associate Professor; B.A., Susquehanna  
University; M.A., Ph.D., University of Arizona.  
*UNLV Emeritus 1972-2007.*

## Doctor of Philosophy - Psychology

### **Plan Description**

The Graduate Faculty of the Department of Psychology is comprised of a group of dedicated individuals who have received their training at outstanding graduate programs. We continue to recruit accomplished scholars who will enhance the quality and diversity of the graduate experience available to our students. The department is committed to providing our graduate students with a high quality program balanced across classroom, laboratories, and other research settings; and for clinical students, various practicum placements. The department currently offers M.A. and Ph.D. degrees through the Clinical and Experimental Psychology Tracks.

The UNLV Clinical Psychology Tracks prepare students to address human concerns through both scholarly research and the application of psychological knowledge and skills. We recognize psychology as an empirical science and expect students to have a broad understanding of existing psychological knowledge. We guide students to base their scholarly and professional activity on the scientific foundation of psychology. Through an integration of didactic study, supervised clinical activity, and mentored scholarly research, we prepare students as generalist scientist-practitioners to conduct scientific research and clinical interventions with children and adults.

The UNLV Experimental Psychology Doctoral Program trains students to become psychological scientists capable of carrying out independent research that lives up to international standards of scientific excellence. Upon completing the degree, students will be qualified to seek careers conducting research in academia and in other institutional and applied settings. Areas of research in which faculty supervise students are: Cognitive Psychology, Neuroscience, Developmental Psychology, and Quantitative/Experimental Psychology. The program operates on a mentor model in which students work under the supervision of an identified faculty mentor. We welcome students from diverse backgrounds and encourage research in topics related to

multiculturalism and diversity.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

Learning outcomes for specific subplan tracks can be found below:

- Doctor of Philosophy - Psychology, Clinical Psychology
- Doctor of Philosophy - Psychology, Experimental Psychology

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

The program is accredited by the American Psychological Association.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

#### *Clinical Psychology Tracks*

The Clinical Psychology Tracks currently admit only students seeking a doctoral degree. The program admits students for matriculation only in the fall semester. The application deadline is December 1 prior to the fall for which matriculation is being requested. Applicants will be notified of their status prior to April 15. We anticipate entering classes of 5-8 students each year. Typical admitted students have GPAs of 3.7 and GRE scores of 600 (see <http://psychology.unlv.edu/clinical.htm#Admission> for more information).

1. A bachelor's degree from an accredited institution or a master's degree or equivalent from an accredited institution. We strongly recommend that applicants have a degree in psychology. Applicants should have completed at least 18 hours of undergraduate psychology courses including statistics, abnormal psychology, and experimental psychology.

2. Satisfactory scores on the Verbal and Quantitative sections of the Graduate Record Examination (GRE).
3. Three letters of recommendation.
4. A statement of purpose written by the applicant.
5. A personal interview with members of the program faculty is required for finalists in the selection process.

We will notify applicants if they are finalists in February under most circumstances. If a personal interview is not feasible, a telephone interview may be substituted. In unusual circumstances, students who do not meet these admission requirements may be admitted.

#### *Experimental Psychology Tracks*

The Experimental Psychology tracks currently admit only students seeking a doctoral degree. The program admits students for matriculation only in the fall semester. The application deadline is December 1st before the fall for which matriculation is being requested. Review of completed applications will continue until all positions are filled. Applicants are encouraged to submit their materials as early as possible.

1. A bachelor's degree from an accredited institution with a minimum GPA of 3.20 (A = 4.00) or a master's degree or equivalent from an accredited institution with a minimum GPA of 3.50. Applicants with a bachelor's degree must have completed at least 18 hours in undergraduate psychology courses including Statistics and Research Methods or their equivalents.
2. Satisfactory scores on the Verbal and Quantitative sections of the Graduate Record Examination (GRE).
3. Three letters of recommendation.
4. A statement of purpose written by the applicant.
5. Admission to the program will be based on a mentoring model. Students under serious consideration for admission to the Experimental Program are required to have a personal interview with the sponsoring faculty member and at least two other program faculty members. If a personal

interview is not financially or pragmatically feasible, a telephone interview may be substituted.

Note: Strong applicants who fail to meet one of the Experimental Program admission requirements may still be considered for admission.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Post-Bachelor's - Clinical Psychology Track**

Total Credits Required: 96

Course Requirements

#### **Clinical Foundation Courses – Credits: 27**

PSY 712 - Psychometrics  
PSY 714 - History and Foundations of Clinical Psychology  
PSY 715 - Assessment of Children  
PSY 716 - Assessment of Adults  
PSY 725 - Intervention with Children  
PSY 726 - Intervention with Adults  
PSY 736 - Psychopathology  
PSY 750 - Diversity in Professional Psychology  
PSY 755 - Ethics and Professional Issues

#### **Research Methods and Statistics Courses – Credits: 9**

PSY 707 - Research Methods  
PSY 708 - Statistics for Psychologists I  
PSY 709 - Statistics for Psychologists II

#### **Practicum – Credits: 6**

PSY 767 - Practicum

#### **Thesis – Credits: 6**

PSY 769 - Thesis

**After successfully completing the requirements above, students are eligible to earn the Master of Arts – Psychology.**

#### **Scientific Breadth in Psychology Courses – Credits: 12**

PSY 701 - Biological Bases of Behavior  
PSY 703 - Cognitive Psychology  
PSY 704 - Social Psychology  
PSY 721 - Developmental Science

#### **Elective Courses – Credits: 6**

Complete 6 credits of 700-level Psychology courses. Other 700-level courses offered by other departments may be taken with approval of the student's advisor and the Clinical Program Committee.

#### **Practicum – Credits: 12**

PSY 767 - Practicum

#### **Internship – Credits: 6**

Complete a full calendar year APA-approved clinical psychology internship.

PSY 771 - Professional Internship

#### **Dissertation – Credits: 12**

PSY 770 - Dissertation

Degree Requirements

1. En route to doctoral candidacy the student must complete the requirements for a master's degree in psychology, and complete 6 credits of thesis over a minimum of 2 semesters. The thesis must be proposed and defended orally.
2. In addition to a master's degree in Psychology equivalent to the one previously described (48 credits), a minimum of 48 semester hours in graduate psychology is required for the doctoral degree.
3. Comprehensive Examination. The Comprehensive examination for the doctoral program will consist of an examination

administered once each year. Students may take the exam after they have completed 66 credits and the Master's thesis.

4. Electives consist of any 700-level Psychology courses excluding Independent Study, Practicum, Independent Research, Thesis, Dissertation, and Professional Internship.
5. Students must obtain a grade of B- or better in each course taken for that course to count toward the degree. One grade below a B- (i.e. C+ or lower) will result in probation. Once on probation for receiving a grade below a B-, a second grade (in the same or different classes) below a B-, will result in immediate separation from the program. If a student re-takes a course in which s/he received a grade lower than a B- (i.e. C+ or lower) and earns a B- or better, s/he will be removed from probation. A student may only be on academic probation twice during their graduate career in Psychology; a third probation will result in separation from the program. No student shall be allowed more than two simultaneous grades of incomplete, except in the case of a documented and approved medical leave.
6. Students must conform to all policies of the UNLV Graduate College, as stated in the UNLV Graduate Catalog, those stated in the UNLV Clinical Psychology Doctoral Program Student Handbook, and the American Psychological Association Code of Ethics. Students will be evaluated at least yearly across several professional competencies. Inadequate performance in one or more may result in the imposition of additional requirements, loss of Graduate Assistantship, probation, or separation from the program.
7. Transfer Credits. Admitted clinical students may transfer credits from graduate studies in other programs contingent upon departmental approval and in accordance with Graduate College policy.
8. The dissertation must be orally proposed and defended.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's and Doctoral portions of the program.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
3. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 2 Requirements: Post-Master's - Clinical Psychology Track**

Total Credits Required: 75

#### Course Requirements

#### **Clinical Foundation Courses – Credits: 18-27**

Complete 18-27 credits from the following list of courses:

PSY 712 - Psychometrics  
PSY 714 - History and Foundations of Clinical Psychology  
PSY 715 - Assessment of Children  
PSY 716 - Assessment of Adults  
PSY 725 - Intervention with Children  
PSY 726 - Intervention with Adults  
PSY 736 - Psychopathology  
PSY 750 - Diversity in Professional Psychology  
PSY 755 - Ethics and Professional Issues

#### **Research Methods and Statistics Courses – Credits: 0-9**

Complete 0-9 credits from the following list of courses:

PSY 707 - Research Methods  
PSY 708 - Statistics for Psychologists I  
PSY 709 - Statistics for Psychologists II

**Scientific Breadth in Psychology Courses – Credits: 3-12**

Complete 3-12 credits from the following list of courses:

PSY 701 - Biological Bases of Behavior  
PSY 703 - Cognitive Psychology  
PSY 704 - Social Psychology  
PSY 721 - Developmental Science

**Practicum – Credits: 18**

PSY 767 - Practicum

**Internship – Credits: 6**

Complete a full calendar year APA-approved clinical psychology internship.

PSY 771 - Professional Internship

**Dissertation – Credits: 12**

PSY 770 - Dissertation

**Degree Requirements**

1. Students must complete a minimum of 75 credit hours with a minimum GPA of 3.00. Additional credits may be required to address student deficiencies or build specialized expertise.
2. The number of required Clinical Foundation Courses, Research Methods and Statistics Courses, and Scientifics Breadth in Psychology Courses will be determined in consultation with the Director of Clinical Training. Additional credits may be required to address student deficiencies or build specialized expertise.
3. Comprehensive Examination. The Comprehensive examination for the doctoral program will consist of an examination administered once each year. Students may

take the exam after they have completed 45 credits.

4. Students must obtain a grade of B- or better in each course taken for that course to count toward the degree. One grade below a B- (i.e. C+ or lower) will result in probation. Once on probation for receiving a grade below a B-, a second grade (in the same or different classes) below a B-, will result in immediate separation from the program. If a student re-takes a course in which s/he received a grade lower than a B- (i.e. C+ or lower) and earns a B- or better, s/he will be removed from probation. A student may only be on academic probation twice during their graduate career in Psychology; a third probation will result in separation from the program. No student shall be allowed more than two simultaneous grades of incomplete, except in the case of a documented and approved medical leave.
5. Students must conform to all policies of the UNLV Graduate College, as stated in the UNLV Graduate Catalog, those stated in the UNLV Clinical Psychology Doctoral Program Student Handbook, and the American Psychological Association Code of Ethics. Students will be evaluated at least yearly across several professional competencies. Inadequate performance in one or more may result in the imposition of additional requirements, loss of Graduate Assistantship, probation, or separation from the program.
6. Transfer Credits. Admitted clinical students may transfer credits from graduate studies in other programs contingent upon departmental approval and in accordance with Graduate College policy.
7. The dissertation must be orally proposed and defended.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted

deadline. The defense must be advertised and is open to the public.

3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

**Subplan 3 Requirements: Post-Bachelor's - Experimental Psychology - Quantitative/Experimental Emphasis Track**

Total Credits Required: 72

Course Requirements

**Required Courses – Credits: 12**

PSY 707 - Research Methods  
PSY 708 - Statistics for Psychologists I  
PSY 709 - Statistics for Psychologists II  
PSY 756 - Ethics, Professional Issues, and Diversity in Experimental Psychology

**Proseminar Course – Credits: 6**

Complete the following course each semester during the first two years of study.

PSY 758 - Proseminar in Experimental Psychology

**Breadth Courses – Credits: 3**

Complete one of the following courses:

PSY 701 - Biological Bases of Behavior  
PSY 703 - Cognitive Psychology  
PSY 704 - Social Psychology  
PSY 705 - Developmental Psychology

**Elective Courses – Credits: 6**

Complete 6 credits of 700-level Psychology courses, or 600/700-level advisor-approved courses offered by other departments.

**Thesis – Credits: 6**

PSY 769 - Thesis

**After successfully completing the requirements above, students are eligible to earn the Master of Arts – Psychology.**

**Breadth Courses – Credits: 3**

Complete one of the remaining courses that have not been applied to the master's degree:

PSY 701 - Biological Bases of Behavior  
PSY 703 - Cognitive Psychology  
PSY 704 - Social Psychology  
PSY 705 - Developmental Psychology

**Elective Courses – Credits: 24**

Complete 24 credits of 700-level Psychology courses, or 600/700-level advisor-approved courses offered by other departments.

Two electives typically taken by students are:

PSY 757 - Teaching of Psychology  
PSY 772 - Experimental Psychology Qualifying Paper Research

**Dissertation – Credits: 12**

PSY 770 - Dissertation

Degree Requirements

1. En route to doctoral candidacy the student must complete the requirements for a master's degree in psychology and complete 6 credits of thesis over a minimum of 2 semesters.
2. In addition to a master's degree in Psychology equivalent to the one previously described, a minimum of 39 semester hours in graduate psychology is required for the doctoral degree.
3. Student will be required to complete a Qualifying Activity before proposing a Dissertation. The purpose of the qualifying activity is for the student to acquire not only the expertise in a given area, but the ability to explain, discuss, and debate questions within that and related areas. Students may choose, in consultation with their advisor, from the following qualifying activities: one

extensive qualifying paper, three brief papers, or a written examination.

4. Students must obtain a grade of B- or better in each course taken for that course to count toward the degree. One grade below a B- (i.e. C+ or lower) will result in probation. Once on probation for receiving a grade below a B-, a second grade (in the same or different classes) below a B-, will result in immediate separation from the program. If a student re-takes a course in which s/he received a grade lower than a B- (i.e. C+ or lower) and earns a B- or better, s/he will be removed from probation. A student may only be on academic probation twice during their graduate career in Psychology; a third probation will result in separation from the program. No student shall be allowed more than two simultaneous grades of incomplete, except in the case of a documented and approved medical leave.
5. Students must conform to all policies of the UNLV Graduate College, as stated in the UNLV Graduate Catalog, those stated in the UNLV Experimental Psychology Doctoral Program Student Handbook, and the American Psychological Association Code of Ethics. Students will be evaluated at least yearly across several professional competencies in the following three areas: (1) academic performance; (2) scholarly research activity; and (3) ethical behavior and professional conduct. If the program determines that a student is not making satisfactory progress toward the degree, it may request the Graduate Dean to separate the student from the program or place the student on probation. Failure to meet the conditions of the probation will result in separation from the program.
6. Students must take a minimum of four semesters of dissertation which can include summers. The dissertation must be orally proposed and defended.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to

completing his/her degree requirements for both the Master's and Doctoral portions of the program.

2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
4. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
5. Student must submit his/her approved, properly formatted dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 4 Requirements: Post-Bachelor's - Experimental Psychology - Cognitive Emphasis Track**

Total Credits Required: 72

#### Course Requirements

#### **Required Courses – Credits: 12**

PSY 707 - Research Methods

PSY 708 - Statistics for Psychologists I

PSY 709 - Statistics for Psychologists II

PSY 756 - Ethics, Professional Issues, and Diversity in Experimental Psychology

#### **Proseminar Course – Credits: 6**

Complete the following course each semester during the first two years of study.

PSY 758 - Proseminar in Experimental Psychology

#### **Cognitive Emphasis Courses – Credits: 6**

Complete two of the following courses:

PSY 703 - Cognitive Psychology  
PSY 717 - Cognitive Methods  
PSY 718 - Cognitive Science

**Elective Courses – Credits: 3**

Complete 3 credits of 700-level Psychology courses, or other 700-level advisor-approved courses offered by other departments. 600-level courses offered by other departments require advisor approval and concurrence by the Experimental Program Director.

**Thesis – Credits: 6**

PSY 769 - Thesis

**After successfully completing the requirements above, students are eligible to earn the Master of Arts – Psychology.**

**Cognitive Seminar Courses – Credits: 6**

Complete two courses that have not been applied to the master's degree:

PSY 703 - Cognitive Psychology  
PSY 717 - Cognitive Methods  
PSY 718 - Cognitive Science  
PSY 747 - Topics in Perception  
PSY 748 - Topics in Memory:  
PSY 749 - Topics in Cognitive Processes:

**Elective Courses – Credits: 21**

Complete 21 credits of 700-level Psychology courses, or other 700-level advisor-approved courses offered by other departments. 600-level courses offered by other departments require advisor approval and concurrence by the Experimental Program Director.

Two electives typically taken by students are:

PSY 757 - Teaching of Psychology  
PSY 772 - Experimental Psychology Qualifying Paper Research

**Dissertation – Credits: 12**

PSY 770 - Dissertation

Degree Requirements

1. En route to doctoral candidacy the student must complete the requirements for a master's degree in psychology, and complete 6 credits of thesis over a minimum of 2 semesters.
2. In addition to a master's degree in Psychology equivalent to the one previously described (33 credits), a minimum of 39 credits in graduate psychology is required for the doctoral degree.
3. Student will be required to complete a Qualifying Activity before proposing a Dissertation. The purpose of the qualifying activity is for the student to acquire not only the expertise in a given area, but the ability to explain, discuss, and debate questions within that and related areas. Students may choose, in consultation with their advisor, from the following qualifying activities: one extensive qualifying paper, three brief papers, or a written examination.
4. The Comprehensive Examination for the doctoral program will consist of an examination administered once each year. Students may take the exam after they have completed 66 credits and the Master's thesis.
5. Students must obtain a grade of B- or better in each course taken for that course to count toward the degree. One grade below a B- (i.e. C+ or lower) will result in probation. Once on probation for receiving a grade below a B-, a second grade (in the same or different classes) below a B-, will result in immediate separation from the program. If a student re-takes a course in which s/he received a grade lower than a B- (i.e. C+ or lower) and earns a B- or better, s/he will be removed from probation. A student may only be on academic probation twice during their graduate career in Psychology; a third probation will result in separation from the program. No student shall be allowed more than two simultaneous grades of incomplete, except in the case of a documented and approved medical leave.
6. Students must conform to all policies of the UNLV Graduate College, as stated in the UNLV Graduate Catalog, those stated in the UNLV Experimental Psychology Doctoral



Program Student Handbook, and the American Psychological Association Code of Ethics. Students will be evaluated at least yearly across several professional competencies in the following three areas: (1) academic performance; (2) scholarly research activity; and (3) ethical behavior and professional conduct. If the program determines that a student is not making satisfactory progress toward the degree, it may request the Graduate Dean to separate the student from the program or place the student on probation. Failure to meet the conditions of the probation will result in separation from the program.

7. Students must take a minimum of four semesters of dissertation which can include summers. The dissertation must be orally proposed and defended.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's and Doctoral portions of the program.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
4. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
5. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 5 Requirements: Post-Bachelor's - Experimental Psychology - Neuroscience Emphasis Track**

Total Credits Required: 72

#### Course Requirements

#### **Required Courses – Credits: 15**

Complete the following courses. \*Students lacking sufficient background in Neuroscience will also take PSY 701 – Biological Bases of Behavior prior to taking these core courses.

PSY 708 - Statistics for Psychologists I  
PSY 709 - Statistics for Psychologists II  
PSY 719 - Behavioral Neuroscience\*  
PSY 720 - Systems and Cognitive Neuroscience\*  
PSY 756 - Ethics, Professional Issues, and Diversity in Experimental Psychology

#### **Proseminar Course – Credits: 6**

Complete the following course each semester during the first two years of study.

PSY 758 - Proseminar in Experimental Psychology

#### **Elective Courses – Credits: 6**

Complete 6 credits of 700-level Psychology courses, or other 700-level advisor-approved courses offered by other departments. 600-level courses offered by other departments require advisor approval and concurrence by the Experimental Program

Director.

#### **Thesis – Credits: 6**

PSY 769 - Thesis

**After successfully completing the requirements above, students are eligible to earn the Master of Arts – Psychology.**

#### **Elective Courses – Credits: 27**

Complete 27 credits of 700-level Psychology courses, or other 700-level advisor-approved courses offered by other departments. 600-level courses offered by other departments require advisor approval and concurrence by the Experimental Program Director.

Two electives typically taken by students are:

PSY 757 - Teaching of Psychology  
PSY 772 - Experimental Psychology Qualifying  
Paper Research

### **Dissertation – Credits: 12**

PSY 770 - Dissertation

#### Degree Requirements

1. En route to doctoral candidacy the student must complete the requirements for a master's degree in psychology, and complete 6 credits of thesis over a minimum of 2 semesters.
2. In addition to a master's degree in Psychology equivalent to the one previously described (33 credits), a minimum of 39 credits in graduate psychology is required for the doctoral degree.
3. Student will be required to complete a Qualifying Activity before proposing a Dissertation. The purpose of the qualifying activity is for the student to acquire not only the expertise in a given area, but the ability to explain, discuss, and debate questions within that and related areas. Students may choose, in consultation with their advisor, from the following qualifying activities: one extensive qualifying paper, three brief papers, or a written examination.
4. The Comprehensive Examination for the doctoral program will consist of an examination administered once each year. Students may take the exam after they have completed 66 credits and the Master's thesis.
5. Students must obtain a grade of B- or better in each course taken for that course to count toward the degree. One grade below a B- (i.e. C+ or lower) will result in probation. Once on probation for receiving a grade below a B-, a second grade (in the same or different classes) below a B-, will result in immediate separation from the program. If a student re-takes a course in which s/he received a grade lower than a B- (i.e. C+ or lower) and earns a B- or better, s/he will be removed from probation. A student may only be on academic probation twice during their graduate career in Psychology; a third

probation will result in separation from the program. No student shall be allowed more than two simultaneous grades of incomplete, except in the case of a documented and approved medical leave.

6. Students must conform to all policies of the UNLV Graduate College, as stated in the UNLV Graduate Catalog, those stated in the UNLV Experimental Psychology Doctoral Program Student Handbook, and the American Psychological Association Code of Ethics. Students will be evaluated at least yearly across several professional competencies in the following three areas: (1) academic performance; (2) scholarly research activity; and (3) ethical behavior and professional conduct. If the program determines that a student is not making satisfactory progress toward the degree, it may request the Graduate Dean to separate the student from the program or place the student on probation. Failure to meet the conditions of the probation will result in separation from the program.
7. Students must take a minimum of four semesters of dissertation which can include summers. The dissertation must be orally proposed and defended.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's and Doctoral portions of the program.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
4. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.

5. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

**Subplan 6 Requirements: Post-Bachelor's - Experimental Psychology - Developmental Emphasis Track**

Total Credits Required: 72

Course Requirements

**Required Courses – Credits: 12**

PSY 708 - Statistics for Psychologists I  
PSY 709 - Statistics for Psychologists II  
PSY 713 - Developmental Research  
PSY 756 - Ethics, Professional Issues, and Diversity in Experimental Psychology

**Proseminar Course – Credits: 6**

Complete the following course each semester during the first two years of study.

PSY 758 - Proseminar in Experimental Psychology

**Developmental Science Course – Credits: 6**

Complete 6 credits of the following course:

PSY 721 - Developmental Science

**Elective Courses – Credits: 3**

Complete 3 credits of 700-level Psychology courses, or other 700-level advisor-approved courses offered by other departments. 600-level courses offered by other departments require advisor approval and concurrence by the Experimental Program

Director.

**Thesis – Credits: 6**

PSY 769 - Thesis

**After successfully completing the requirements above, students are eligible to earn the Master of Arts – Psychology.**

**Developmental Seminar Course – Credits: 9**

Complete 9 credits of the following course:

PSY 740 - Topics in Developmental Psychology

**Developmental Emphasis Courses – Credits: 6**

Complete two courses that have not been applied to the master's degree:

PSY 704 - Social Psychology

PSY 701 - Biological Bases of Behavior

Or

PSY 719 - Behavioral Neuroscience

Or

PSY 720 - Systems and Cognitive Neuroscience

PSY 703 - Cognitive Psychology

Or

PSY 718 - Cognitive Science

**Elective Courses – Credits: 12**

Complete 21 credits of 700-level Psychology courses, or other 700-level advisor-approved courses offered by other departments. 600-level courses offered by other departments require advisor approval and concurrence by the Experimental Program Director.

Two electives typically taken by students are:

PSY 757 - Teaching of Psychology

PSY 772 - Experimental Psychology Qualifying Paper Research

**Dissertation – Credits: 12**

PSY 770 - Dissertation

Degree Requirements

1. En route to doctoral candidacy the student must complete the requirements for a master's degree in psychology, and complete 6 credits of thesis over a minimum of 2 semesters.
2. In addition to a master's degree in Psychology equivalent to the one previously described (33 credits), a minimum of 39 credits in graduate psychology is required for the doctoral degree.

3. Student will be required to complete a Qualifying Activity before proposing a Dissertation. The purpose of the qualifying activity is for the student to acquire not only the expertise in a given area, but the ability to explain, discuss, and debate questions within that and related areas. Students may choose, in consultation with their advisor, from the following qualifying activities: one extensive qualifying paper, three brief papers, or a written examination.
4. The Comprehensive Examination for the doctoral program will consist of an examination administered once each year. Students may take the exam after they have completed 66 credits and the Master's thesis.
5. Students must obtain a grade of B- or better in each course taken for that course to count toward the degree. One grade below a B- (i.e. C+ or lower) will result in probation. Once on probation for receiving a grade below a B-, a second grade (in the same or different classes) below a B-, will result in immediate separation from the program. If a student re-takes a course in which s/he received a grade lower than a B- (i.e. C+ or lower) and earns a B- or better, s/he will be removed from probation. A student may only be on academic probation twice during their graduate career in Psychology; a third probation will result in separation from the program. No student shall be allowed more than two simultaneous grades of incomplete, except in the case of a documented and approved medical leave.
6. Students must conform to all policies of the UNLV Graduate College, as stated in the UNLV Graduate Catalog, those stated in the UNLV Experimental Psychology Doctoral Program Student Handbook, and the American Psychological Association Code of Ethics. Students will be evaluated at least yearly across several professional competencies in the following three areas: (1) academic performance; (2) scholarly research activity; and (3) ethical behavior and professional conduct. If the program determines that a student is not making satisfactory progress toward the degree, it

may request the Graduate Dean to separate the student from the program or place the student on probation. Failure to meet the conditions of the probation will result in separation from the program.

7. Students must take a minimum of four semesters of dissertation which can include summers. The dissertation must be orally proposed and defended.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's and Doctoral portions of the program.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
4. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
5. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 7 Requirements: Post-Master's - Experimental Psychology - Quantitative/Experimental Emphasis Track**

Total Credits Required: 53

#### Course Requirements

#### **Required Courses – Credits: 3-12**

Complete 3-12 credits from the following list of courses:

PSY 707 - Research Methods  
PSY 708 - Statistics for Psychologists I  
PSY 709 - Statistics for Psychologists II  
PSY 756 - Ethics, Professional Issues, and Diversity  
in Experimental Psychology

**Proseminar Course – Credits: 0-6**

Complete the following course each semester during  
the first two years of study.

PSY 758 - Proseminar in Experimental Psychology

**Breadth Courses – Credits: 0-6**

Complete 0-6 credits from the following list of  
courses:

PSY 701 - Biological Bases of Behavior  
PSY 703 - Cognitive Psychology  
PSY 704 - Social Psychology  
PSY 705 - Developmental Psychology

**Elective Courses – Credits: 14-24**

Complete 14-24 credits of 700-level Psychology  
courses, or 600/700-level advisor-approved courses  
offered by other departments.

Two electives typically taken by students are:

PSY 757 - Teaching of Psychology  
PSY 772 - Experimental Psychology Qualifying  
Paper Research

**Dissertation – Credits: 12**

PSY 770 - Dissertation

**Degree Requirements**

1. Students must complete a minimum of 53  
credit hours with a minimum GPA of 3.00.  
Additional credits may be required to  
address student deficiencies or build  
specialized expertise.
2. The number of Required, Proseminar,  
Breadth, and Elective credits will be  
determined in consultation with the  
Experimental Program Director. Additional  
credits may be required to address student  
deficiencies or build specialized expertise.

3. Student will be required to complete a  
Qualifying Activity before proposing a  
Dissertation. The purpose of the qualifying  
activity is for the student to acquire not only  
the expertise in a given area, but the ability  
to explain, discuss, and debate questions  
within that and related areas. Students may  
choose, in consultation with their advisor,  
from the following qualifying activities: one  
extensive qualifying paper, three brief  
papers, or a written examination.
4. Students must obtain a grade of B- or better  
in each course taken for that course to count  
toward the degree. One grade below a B-  
(i.e. C+ or lower) will result in probation.  
Once on probation for receiving a grade  
below a B-, a second grade (in the same or  
different classes) below a B-, will result in  
immediate separation from the program. If a  
student re-takes a course in which s/he  
received a grade lower than a B- (i.e. C+ or  
lower) and earns a B- or better, s/he will be  
removed from probation. A student may  
only be on academic probation twice during  
their graduate career in Psychology; a third  
probation will result in separation from the  
program. No student shall be allowed more  
than two simultaneous grades of incomplete,  
except in the case of a documented and  
approved medical leave.
5. Students must conform to all policies of the  
UNLV Graduate College, as stated in the  
UNLV Graduate Catalog, those stated in the  
UNLV Experimental Psychology Doctoral  
Program Student Handbook, and the  
American Psychological Association Code  
of Ethics. Students will be evaluated at least  
yearly across several professional  
competencies in the following three areas:  
(1) academic performance; (2) scholarly  
research activity; and (3) ethical behavior  
and professional conduct. If the program  
determines that a student is not making  
satisfactory progress toward the degree, it  
may request the Graduate Dean to separate  
the student from the program or place the  
student on probation. Failure to meet the  
conditions of the probation will result in  
separation from the program.

6. Students must take a minimum of four semesters of dissertation which can include summers. The dissertation must be orally proposed and defended.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's and Doctoral portions of the program.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
4. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
5. Student must submit his/her approved, properly formatted dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 8 Requirements: Post-Master's - Experimental Psychology - Cognitive Emphasis Track**

Total Credits Required: 53

#### Course Requirements

##### **Required Courses – Credits: 3-12**

Complete 3-12 credits from the following list of courses:

PSY 707 - Research Methods  
PSY 708 - Statistics for Psychologists I  
PSY 709 - Statistics for Psychologists II  
PSY 756 - Ethics, Professional Issues, and Diversity in Experimental Psychology

##### **Proseminar Course – Credits: 0-6**

Complete the following course each semester during the first two years of study.

PSY 758 - Proseminar in Experimental Psychology

##### **Cognitive Emphasis Courses – Credits: 0-6**

Complete 0-6 credits from the following list of courses:

PSY 703 - Cognitive Psychology  
PSY 717 - Cognitive Methods  
PSY 718 - Cognitive Science

##### **Cognitive Seminar Courses – Credits: 0-6**

Complete 0-6 credits from the following list of courses (excluding those taken as Emphasis Courses):

PSY 703 - Cognitive Psychology  
PSY 717 - Cognitive Methods  
PSY 718 - Cognitive Science  
PSY 747 - Topics in Perception  
PSY 748 - Topics in Memory:  
PSY 749 - Topics in Cognitive Processes:

##### **Elective Courses – Credits: 11-21**

Complete 11-21 credits of 700-level Psychology courses, or other 700-level advisor-approved courses offered by other departments. 600-level courses offered by other departments require advisor approval and concurrence by the Experimental Program Director.

Two electives typically taken by students are:

PSY 757 - Teaching of Psychology  
PSY 772 - Experimental Psychology Qualifying Paper Research

##### **Dissertation – Credits: 12**

PSY 770 - Dissertation

#### Degree Requirements

1. Students must complete a minimum of 53 credit hours with a minimum GPA of 3.00. Additional credits may be required to

- address student deficiencies or build specialized expertise.
2. The number of Required, Proseminar, Cognitive Emphasis, Cognitive Seminar, and Elective credits will be determined in consultation with the Director of Clinical Training. Additional credits may be required to address student deficiencies or build specialized expertise.
  3. Student will be required to complete a Qualifying Activity before proposing a Dissertation. The purpose of the qualifying activity is for the student to acquire not only the expertise in a given area, but the ability to explain, discuss, and debate questions within that and related areas. Students may choose, in consultation with their advisor, from the following qualifying activities: one extensive qualifying paper, three brief papers, or a written examination.
  4. The Comprehensive Examination for the doctoral program will consist of an examination administered once each year. Students may take the exam after they have completed 66 credits and the Master's thesis.
  5. Students must obtain a grade of B- or better in each course taken for that course to count toward the degree. One grade below a B- (i.e. C+ or lower) will result in probation. Once on probation for receiving a grade below a B-, a second grade (in the same or different classes) below a B-, will result in immediate separation from the program. If a student re-takes a course in which s/he received a grade lower than a B- (i.e. C+ or lower) and earns a B- or better, s/he will be removed from probation. A student may only be on academic probation twice during their graduate career in Psychology; a third probation will result in separation from the program. No student shall be allowed more than two simultaneous grades of incomplete, except in the case of a documented and approved medical leave.
  6. Students must conform to all policies of the UNLV Graduate College, as stated in the UNLV Graduate Catalog, those stated in the UNLV Experimental Psychology Doctoral Program Student Handbook, and the

American Psychological Association Code of Ethics. Students will be evaluated at least yearly across several professional competencies in the following three areas: (1) academic performance; (2) scholarly research activity; and (3) ethical behavior and professional conduct. If the program determines that a student is not making satisfactory progress toward the degree, it may request the Graduate Dean to separate the student from the program or place the student on probation. Failure to meet the conditions of the probation will result in separation from the program.

7. Students must take a minimum of four semesters of dissertation which can include summers. The dissertation must be orally proposed and defended.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's and Doctoral portions of the program.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
4. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
5. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 9 Requirements: Post-Master's - Experimental Psychology - Neuroscience Emphasis Track**

Total Credits Required: 53

#### Course Requirements

#### **Required Courses – Credits: 9-15**

Complete 9-15 credits from the following list of courses. \*Students lacking sufficient background in Neuroscience will also take PSY 701 – Biological Bases of Behavior prior to taking these core courses.

PSY 708 - Statistics for Psychologists I

PSY 709 - Statistics for Psychologists II

PSY 719 - Behavioral Neuroscience\*

PSY 720 - Systems and Cognitive Neuroscience\*

PSY 756 - Ethics, Professional Issues, and Diversity in Experimental Psychology

#### **Proseminar Course – Credits: 0-6**

Complete the following course each semester during the first two years of study.

PSY 758 - Proseminar in Experimental Psychology

#### **Elective Courses – Credits: 20-27**

Complete 20-27 credits of 700-level Psychology courses, or other 700-level advisor-approved courses offered by other departments. 600-level courses offered by other departments require advisor approval and concurrence by the Experimental Program Director.

Two electives typically taken by students are:

PSY 757 - Teaching of Psychology

PSY 772 - Experimental Psychology Qualifying Paper Research

#### **Dissertation – Credits: 12**

PSY 770 - Dissertation

#### Degree Requirements

1. Students must complete a minimum of 53 credit hours with a minimum GPA of 3.00. Additional credits may be required to address student deficiencies or build specialized expertise.

2. The number of Required, Proseminar, and Elective credits will be determined in consultation with the Director of Clinical Training. Additional credits may be required to address student deficiencies or build specialized expertise.
3. Student will be required to complete a Qualifying Activity before proposing a Dissertation. The purpose of the qualifying activity is for the student to acquire not only the expertise in a given area, but the ability to explain, discuss, and debate questions within that and related areas. Students may choose, in consultation with their advisor, from the following qualifying activities: one extensive qualifying paper, three brief papers, or a written examination.
4. The Comprehensive Examination for the doctoral program will consist of an examination administered once each year. Students may take the exam after they have completed 66 credits and the Master's thesis.
5. Students must obtain a grade of B- or better in each course taken for that course to count toward the degree. One grade below a B- (i.e. C+ or lower) will result in probation. Once on probation for receiving a grade below a B-, a second grade (in the same or different classes) below a B-, will result in immediate separation from the program. If a student re-takes a course in which s/he received a grade lower than a B- (i.e. C+ or lower) and earns a B- or better, s/he will be removed from probation. A student may only be on academic probation twice during their graduate career in Psychology; a third probation will result in separation from the program. No student shall be allowed more than two simultaneous grades of incomplete, except in the case of a documented and approved medical leave.
6. Students must conform to all policies of the UNLV Graduate College, as stated in the UNLV Graduate Catalog, those stated in the UNLV Experimental Psychology Doctoral Program Student Handbook, and the American Psychological Association Code of Ethics. Students will be evaluated at least yearly across several professional



competencies in the following three areas: (1) academic performance; (2) scholarly research activity; and (3) ethical behavior and professional conduct. If the program determines that a student is not making satisfactory progress toward the degree, it may request the Graduate Dean to separate the student from the program or place the student on probation. Failure to meet the conditions of the probation will result in separation from the program.

7. Students must take a minimum of four semesters of dissertation which can include summers. The dissertation must be orally proposed and defended.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's and Doctoral portions of the program.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
4. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
5. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 10 Requirements: Post-Master's - Experimental Psychology - Developmental Emphasis Track**

Total Credits Required: 53

#### Course Requirements

#### **Required Courses – Credits: 3-12**

Complete 3-12 credits from the following list of courses:

PSY 708 - Statistics for Psychologists I  
PSY 709 - Statistics for Psychologists II  
PSY 713 - Developmental Research

PSY 756 - Ethics, Professional Issues, and Diversity in Experimental Psychology

#### **Proseminar Course – Credits: 0-6**

Complete the following course each semester during the first two years of study.

PSY 758 - Proseminar in Experimental Psychology

#### **Developmental Science Course – Credits: 0-6**

Complete 0-6 credits of the following course:

PSY 721 - Developmental Science

#### **Developmental Seminar Course – Credits: 0-9**

Complete 0-9 credits of the following course:

PSY 740 - Topics in Developmental Psychology

#### **Developmental Emphasis Courses – Credits: 0-6**

Complete 0-6 credits from the following list of courses:

PSY 704 - Social Psychology  
PSY 701 - Biological Bases of Behavior  
Or  
PSY 719 - Behavioral Neuroscience  
Or  
PSY 720 - Systems and Cognitive Neuroscience

PSY 703 - Cognitive Psychology

Or  
PSY 718 - Cognitive Science

#### **Elective Courses – Credits: 2-12**

Complete 2-12 credits of 700-level Psychology courses, or other 700-level advisor-approved courses offered by other departments. 600-level courses offered by other departments require advisor

approval and concurrence by the Experimental Program Director.

Two electives typically taken by students are:

PSY 757 - Teaching of Psychology

PSY 772 - Experimental Psychology Qualifying Paper Research

### **Dissertation – Credits: 12**

PSY 770 - Dissertation

### Degree Requirements

1. Students must complete a minimum of 53 credit hours with a minimum GPA of 3.00. Additional credits may be required to address student deficiencies or build specialized expertise.
2. The number of Required, Proseminar, Developmental Science, Developmental Seminar, Developmental Emphasis, and Elective credits will be determined in consultation with the Director of Clinical Training. Additional credits may be required to address student deficiencies or build specialized expertise.
3. Student will be required to complete a Qualifying Activity before proposing a Dissertation. The purpose of the qualifying activity is for the student to acquire not only the expertise in a given area, but the ability to explain, discuss, and debate questions within that and related areas. Students may choose, in consultation with their advisor, from the following qualifying activities: one extensive qualifying paper, three brief papers, or a written examination.
4. The Comprehensive Examination for the doctoral program will consist of an examination administered once each year. Students may take the exam after they have completed 66 credits and the Master's thesis.
5. Students must obtain a grade of B- or better in each course taken for that course to count toward the degree. One grade below a B- (i.e. C+ or lower) will result in probation. Once on probation for receiving a grade below a B-, a second grade (in the same or

different classes) below a B-, will result in immediate separation from the program. If a student re-takes a course in which s/he received a grade lower than a B- (i.e. C+ or lower) and earns a B- or better, s/he will be removed from probation. A student may only be on academic probation twice during their graduate career in Psychology; a third probation will result in separation from the program. No student shall be allowed more than two simultaneous grades of incomplete, except in the case of a documented and approved medical leave.

6. Students must conform to all policies of the UNLV Graduate College, as stated in the UNLV Graduate Catalog, those stated in the UNLV Experimental Psychology Doctoral Program Student Handbook, and the American Psychological Association Code of Ethics. Students will be evaluated at least yearly across several professional competencies in the following three areas: (1) academic performance; (2) scholarly research activity; and (3) ethical behavior and professional conduct. If the program determines that a student is not making satisfactory progress toward the degree, it may request the Graduate Dean to separate the student from the program or place the student on probation. Failure to meet the conditions of the probation will result in separation from the program.
7. Students must take a minimum of four semesters of dissertation which can include summers. The dissertation must be orally proposed and defended.

### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's and Doctoral portions of the program.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.

3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.
4. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
5. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## **Psychology Courses**

### **PSY 606 - Intermediate Statistics**

Credits 3

Theory and application of parametric and non-parametric statistical inference, including special correlation methods.

**Notes** This course is crosslisted with PSY 406. Credit at the 600-level requires additional work.

**Prerequisites** Admitted PhD Psychology students only.

### **PSY 620 - Psychology of Learning**

Credits 3

Analysis of the principles, theories, and phenomena of learning.

**Notes** This course is crosslisted with PSY 420. Credit at the 600-level requires additional work.

**Prerequisites** Admitted PhD Psychology students only.

### **PSY 680 - Experimental Psychology**

Credits 3

Graduate credit may be obtained for courses designated 600 or above. A full description of this course may be found in the UNLV Undergraduate Catalog under the corresponding 400 number.

**Notes** Credit at the 600-level requires additional work.

**Prerequisites** Admitted PhD Psychology students only.

### **PSY 681 - Principles of Psychological Testing**

Credits 3

Theory, construction, and application of standard psychological tests.

**Notes** This course is crosslisted with PSY 481. Credit at the 600-level requires additional work.

**Prerequisites** Admitted PhD Psychology students only.

### **PSY 682 - History of Psychology**

Credits 3

Study of the history of psychology.

**Notes** This course is crosslisted with PSY 482. Credit at the 600-level requires additional work.

**Prerequisites** Admitted PhD Psychology students only.

PSY 683 - Theories of Personality

Credits 3

Graduate credit may be obtained for courses designated 600 or above. A full description of this course may be found in the UNLV Undergraduate Catalog under the corresponding 400 number.

**Notes** Credit at the 600-level requires additional work.

**Prerequisites** Admitted PhD Psychology students only.

PSY 701 - Biological Bases of Behavior

Credits 3

A detailed examination of the biological processes that underlie behavior including basic structure and function of the nervous system, physiological bases of behavior, and neuroscience approaches to topics such as sensation, perception, learning, memory, emotion, sleep, and development.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 702 - Sensation and Perception

Credits 3

Critical review of major theories and issues in perception research, including a discussion of psychophysical methods, general auditory perception, speech, vision, olfaction, gustation, and touch.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 703 - Cognitive Psychology

Credits 3

Critical review of theory and findings in cognitive psychology, including an evaluation of research in attention, pattern recognition, the representation of events in memory, and language.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 704 - Social Psychology

Credits 3

Overview of current theory and research in social psychology. Both the limitations and implications of social psychological theory explored using current research evidence. Topics include attitude change, social influence, attribution theory, social cognition, and cross-cultural perspectives.

**Prerequisites** Admitted PhD Psychology students only and PSY 460 and consent of instructor.

PSY 705 - Developmental Psychology

Credits 3

Survey of cognitive, social, and emotional development from birth through adolescence.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 706 - History of Psychology

Credits 3

Examination of the forces which have shaped the development of the discipline and the practice of psychology, including antecedents in philosophy, physiology, and psychotherapy.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 707 - Research Methods

Credits 3

Advanced treatment of the issues involved in planning, conducting, and evaluating research.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 708 - Statistics for Psychologists I

Credits 3

Treatment of analysis of variance and multiple comparison methods applied to psychological research.

**Prerequisites** Admitted PhD Psychology students only.

PSY 709 - Statistics for Psychologists II

Credits 3

Treatment of correlation, multiple regression, chi-square, and analysis of covariance as applied to psychological research.

**Prerequisites** Admitted PhD Psychology students only.

PSY 710 - Multivariate Analysis in Psychology

Credits 3

Examination of multivariate statistical techniques including topics such as multivariate analysis of variance and covariance, discriminant function analysis, profile analysis, factor analysis, principal components analysis, and canonical correlation.

**Prerequisites** PSY 708 and PSY 709 or equivalent and admitted PhD Psychology students only.

PSY 711 - Advanced Seminar in Psychological Statistics

Credits 3

Examination of advanced statistical techniques such as nonparametric statistics, meta analysis, time-series analysis, and structural equation modeling.

**Notes** May be repeated to a maximum of 18 credits.

**Prerequisites** PSY 708 and PSY 709 or permission of the instructor.

PSY 712 - Psychometrics

Credits 3

Principles of evaluating and constructing psychological tests using psychometric theory and behavioral assessment methodology.

**Prerequisites** Admitted PhD Psychology students only.

PSY 713 - Developmental Research

Credits 3

Application of theory, methods, designs, analyses, and interpretation of research in developmental psychology.

**Prerequisites** Admitted PhD Psychology students only.

PSY 714 - History and Foundations of Clinical Psychology

Credits 3

An overview of the historical development of psychology as well as exploration of current theoretical and skills-based issues in clinical psychology.

**Prerequisites** Admitted PhD Psychology students only and limited to students enrolled in clinical psychology doctoral program.

PSY 715 - Assessment of Children

Credits 3

Theory and practice of psychological assessment of children.

**Prerequisites** Admitted PhD Psychology students only and limited to students enrolled in clinical psychology doctoral program.

PSY 716 - Assessment of Adults

Credits 3

Theory and practice of psychological assessment of adults.

**Prerequisites** Admitted PhD Psychology students

only and limited to students enrolled in clinical psychology doctoral program.

PSY 717 - Cognitive Methods

Credits 3

Overview of cognitive and neuroscience research methods, including demonstrations of equipment and software that is used for conducting experiments and analyzing results.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 718 - Cognitive Science

Credits 3

An exploration of topics related to cognition from fields such as perception, neuroscience, computational modeling, artificial intelligence, anthropology, and linguistics.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 719 - Behavioral Neuroscience

Credits 3

Examines the neural basis of behavior including cellular, molecular, and genetic contributions. Topics will include neuronal cellular structure and function, neuroanatomy, experimental methods/techniques, and detailed investigations of the mechanisms involved in various behaviors and neurological/psychological disorders.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 720 - Systems and Cognitive Neuroscience

Credits 3

Examines systems and cognitive neuroscience theories, methods, and data used to understand topics such as perception, attention, action, learning, memory, emotion, social behavior, language, music, and brain disorders.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 721 - Developmental Science

Credits 3

Discussion and critical review of theoretical perspectives and issues in developmental psychology. Topics include aspects of physiological, cognitive, and social development.

**Notes** Can be taken for a maximum of 3 credits.

**Prerequisites** Admitted PhD Psychology students.

PSY 725 - Intervention with Children

Credits 3

Principles and methods of psychological intervention with children.

**Prerequisites** Admitted PhD Psychology students only and limited to students enrolled in clinical psychology doctoral program.

PSY 726 - Intervention with Adults

Credits 3

Principles and methods of psychological intervention with adults.

**Prerequisites** Admitted PhD Psychology students only and limited to students enrolled in clinical psychology doctoral program.

PSY 727 - Seminar in Clinical Psychology

Credits 3

In-depth study of selected topics in the science and practice of clinical psychology. Focuses on the etiology, assessment, and treatment of specific clinical disorders such as depression, anxiety-based disorders, autism, substance abuse, sexual dysfunctions and paraphilias, marital dysfunctions.

**Notes** May be repeated to a maximum of nine credits

**Prerequisites** Completion of year 1 of the Ph.D. Program. Consent of instructor. Admitted PhD Psychology students only.

PSY 735 - Counseling: Theory and Practice

Credits 3

Emphasis on counseling problems, techniques, and practice as well as historic and contemporary therapeutic theories. Includes supervised student counseling.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 736 - Psychopathology

Credits 3

Advanced treatment of psychopathology covering description, diagnosis, classification, physiological factors, and psychodynamics.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 737 - Child Psychopathology

Credits 3

Primary features, etiological theories, and epidemiology of behavior disorders in youth. Major diagnostic groupings covered include internalizing disorders (i.e., anxiety, depression, suicide, social withdrawal), externalizing disorders (i.e. ADHD, conduct disorder, substance abuse), pediatric problems, and developmental disabilities (e.g., autism, mental retardation).

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 740 - Topics in Developmental Psychology

Credits 3

Analysis of theoretical concepts and research pertinent to the development of the individual.

**Notes** May be repeated to a maximum of 12 credits.

**Prerequisites** Admitted PhD Psychology students only.

PSY 741 - Psychology and Health

Credits 3

In-depth study of selected topics in the science of health psychology and/or the practice of behavioral medicine. Emphasis on theoretical foundations and empirical findings. Topics permitting, instruction on the clinical practice of behavioral medicine.

**Prerequisites** Completion of year 1 of PhD program and admitted PhD Psychology students only.

PSY 742 - Psychopharmacology

Credits 3

In-depth study of the effects of psychoactive drugs on nervous system function and behavior. Topics include pharmacokinetics, pharmacodynamics, principles of neurotransmission, mechanisms of drug action, theoretical models of drug dependence and experimental approaches to psychopharmacology research.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 743 - Human Sexuality

Credits 3

In-depth examination of the social and biological foundations of human sexuality. Includes detailed explorations of the latest research on the human sexual response, the relation of sexuality to psychological adjustment, variations in sexual

behavior and identity, sexual dysfunction, and sociocultural issues.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

#### PSY 744 - Neuropsychology

Credits 3

Provides in-depth examination of the area of neuropsychology to include information on the historical roots of neuropsychology, organization of the human nervous system, brain-behavior relationships, higher cognitive functions, assessment techniques, neuropathology, neurological conditions, report writing, and developing recommendations for treatment planning.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

#### PSY 745 - Clinical Geropsychology

Credits 3

Assessment and psychological treatment of problems experienced in late life.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

#### PSY 746 - Marital and Family Therapy

Credits 3

Principles and methods of psychological interventions with couples and families.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

#### PSY 747 - Topics in Perception

Credits 3

A seminar that explores the core concepts and recent developments in an area of perception. Potential topics include vision, hearing, taste, touch, and smell.

**Notes** May be repeated to a maximum of 12 credits.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

#### PSY 748 - Topics in Memory:

Credits 3

Seminar that explores the core concepts and recent developments in an area of memory research. Potential topics include short-term, working, episodic, semantic, procedural, implicit/explicit, and prospective memory.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

#### PSY 749 - Topics in Cognitive Processes:

Credits 3

A seminar that explores the core concepts and recent developments in an area of cognitive processes.

Potential topics include reasoning, decision-making, mathematics, problem-solving, and language use.

**Notes** May be repeated to a maximum of twelve credits.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

#### PSY 750 - Diversity in Professional Psychology

Credits 3

Acquaints students with the growing body of psychological literature on ethnic, age, life style, and other diversity issues. Emphasis on sensitizing students to unique aspects of minority populations, while enhancing their ability to work with individuals from various backgrounds.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

#### PSY 752 - Group Psychotherapy: Principles and Practice

Credits 3

The practice of competent, evidence-based group psychotherapy, its foundation, and supportive theories. Addresses key aspects of group therapy and relevant ethics.

**Prerequisites** Must have taken or currently be enrolled in PSY 767.

#### PSY 755 - Ethics and Professional Issues

Credits 3

Examination of ethical and professional issues related to the practice of psychology.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

#### PSY 756 - Ethics, Professional Issues, and Diversity in Experimental Psychology

Credits 3

Examination of ethical, professional, and diversity issues related to the practice of experimental psychology. Topics include publishing, grant funding, the professoriate, scientific misconduct, protection of human and nonhuman subjects, and diversity in experimental psychology.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 757 - Teaching of Psychology

Credits 3

Preparation and presentation of teaching material, the grading process, and solicitation of student feedback, among other variables.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 758 - Proseminar in Experimental Psychology

Credits 1 – 3

Weekly forum for students and faculty to discuss professional issues and interdisciplinary research in experimental psychology.

**Notes** May be repeated to a maximum of three credits.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 760 - Advanced Psychological Assessment

Credits 3

Advanced practice in psychodiagnosis, psychological test administration, scoring, interpretation, and integrated report writing.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor and limited to students enrolled in clinical psychology doctoral program.

PSY 762 - Introduction to Clinical Supervision

Credits 3

The practice of competent clinical supervision, focusing on the roles and responsibilities of the supervisor, models and methods of supervision, and legal and ethical issues. Concurrent supervision of practicum students.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor and limited to students enrolled in clinical psychology doctoral program.

PSY 763 - Survey of Community Mental Health Resources

Credits 1

Visits to community psychological facilities with presentations by resource professionals.

**Grading** S/F grading only.

**Prerequisites** Admitted PhD Psychology students only.

PSY 764 - Family Counseling Practicum

Credits 3

Supervised practice in counseling with families and

couples. Emphasis on understanding functioning at the family system.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

PSY 765 - Seminar

Credits 1 – 6

Explores a specific aspect of psychology. Department approval must be obtained prior to registration.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Admitted PhD Psychology students.

PSY 766 - Independent Study

Credits 1 – 6

Individual reading projects under the direction of a faculty member. Department approval must be obtained prior to registration.

**Notes** Student may enroll for 1-6 credits per semester. May be repeated to a maximum of six credits.

**Prerequisites** Admitted PhD Psychology students only.

PSY 767 - Practicum

Credits 3

Supervised clinical experience at a departmentally approved site.

**Notes** Department approval must be obtained prior to registration. May be repeated.

**Prerequisites** Admitted PhD Psychology students only.

PSY 768 - Independent Research

Credits 3 – 9

Individual research projects under the direction of a faculty member.

**Notes** Department approval must be obtained prior to registration. Student may enroll for 3-9 credits per semester. May be repeated.

**Prerequisites** Admitted PhD Psychology students only.

PSY 769 - Thesis

Credits 3 – 6

**Notes** May be repeated, but only six credits will be applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** Admitted PhD Psychology students only.



### PSY 770 - Dissertation

Credits 3 – 12

Dissertation must be orally proposed and defended.

**Notes** Student may enroll for 3-9 credits per semester. May be repeated, but only 12 credits will be applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** Admitted PhD Psychology students only.

**Corequisite** Department approval must be obtained prior to registration.

### PSY 771 - Professional Internship

Credits 1 - 3

The student must complete a full calendar year APA-approved clinical psychology internship. During the internship year, students must register for six credits of PSY 771: Professional Internship.

**Notes** May be repeated, but only six credits will be applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** Admitted PhD Psychology students only.

### PSY 772 - Experimental Psychology Qualifying Paper Research

Credits 3

Taken by students in the Experimental Psychology Doctoral Program after completing the Master's degree while completing their Qualifying Paper.

**Notes** Three credits are required for doctoral degree requirements.

**Grading** S/F grading only.

**Prerequisites** Admitted PhD Psychology students only and consent of instructor.

## Sociology

The graduate faculty in Sociology consists of scholars/teachers who have earned doctorates at some of the leading graduate schools in the country. The Sociology department offers two graduate program tracks: a Ph.D. program for students who have already earned a Masters degree and a Bachelor's to Ph.D. track for qualified students who want to earn their MA and Ph.D. in Sociology at UNLV in a single program. We offer ten areas of specialization: (1) Family, Aging & the Life Course; (2) Culture; (3) Deviance & Criminology; (4) Environment & Health; (5) Race & Ethnic Studies; (6) Gender & Sexuality; (7) Politics & Social Movements; (8) Social Psychology & Theory; (9) Community & Urban Studies; and (10) Demography & Population Studies. The Ph.D. program, which began in 1989, has graduated scholars who hold positions in academia, the nonprofit sector, private industry and public service. Graduates from our Ph.D. program are trained in advanced theory and methods, and have well-developed expertise in at least two of our departmental areas of specialization. The Sociology department welcomes applications for the Ph.D. programs from candidates who can demonstrate a record of significant academic achievement and potential for professional success in sociology.

*Robert Futrell, Ph.D., Chair*

*Barbara Brents, Ph.D., Graduate Coordinator*

## Sociology Faculty

### Chair

#### **Futrell, Robert** - Full Graduate Faculty

Professor; B.A., University of Kentucky; M.A., Ph.D., University of Kansas. *Rebel since 1999.*

### Graduate Coordinator

#### **Brents, Barbara** - Full Graduate Faculty

Professor; B.J., M.A., Ph.D., University of Missouri, Columbia. *Rebel since 1987.*

### Graduate Faculty

#### **Batson, Christie**

Associate Professor; B.A., University of Texas, Austin, M.A., Ph.D., the Ohio State University. *Rebel since 2007.*

#### **Bernhard, Bo** - Full Graduate Faculty

Professor/Director; B.A., Harvard University; M.A., Ph.D., University of Nevada, Las Vegas. *Rebel since 2002.*

#### **Borer, Michael Ian** - Full Graduate Faculty

Associate Professor; B.A., Lafayette College; MA., Ph.D., Boston University. *Rebel since 2008.*

#### **Davis, Georgiann**

Assistant Professor; B.A., Northeastern Illinois University; M.A., University of Wisconsin, Milwaukee; Ph.D., University of Illinois, Chicago. *Rebel since 2014.*

#### **Dickens, David** - Full Graduate Faculty

Professor; B.A., Ph.D., University of Kansas. *Rebel since 1984.*

#### **Gottschalk, Simon** - Full Graduate Faculty

Professor; B.A., Haifa University (Israel); M.A., University of Houston; Ph.D., University of California, Santa Barbara. *Rebel since 1992.*

#### **Keene, Jennifer** - Full Graduate Faculty

Professor and Associate Dean, College of Liberal Arts; B.A., Tulane; M.S., Ph.D., Florida State University. *Rebel since 2001.*

#### **Korgan, Kathryn Hausbeck** - Full Graduate Faculty

Associate Professor and Senior Associate Dean, Graduate College; B.A., M.A., Ph.D. State University of New York at Buffalo. *Rebel since 1995.*

#### **Parker, Robert E.** - Full Graduate Faculty

Professor; B.S., Southern Illinois University; M.A., Ph.D., University of Texas, Austin. *Rebel since 1989.*

#### **Ray, Ranita**

Assistant Professor; B.A., University of Calcutta (India); M.A., Ph.D., University of Connecticut. *Rebel since 2013.*

#### **Shalin, Dmitri N.** - Full Graduate Faculty

Professor; B.A., M.A., Leningrad State University; Ph.D., Institute of Sociological Research, U.S.S.R. Academy of Science; M.Phil, Ph.D., Columbia University. *Rebel since 1991.*

#### **Smedley-López, Anna C.**

Assistant Professor in Residence; B.S.W., M.S.W., Ph.D., University of Nevada, Las Vegas. *Rebel since 2014.*

#### **Spivak, Andrew** - Full Graduate Faculty

Associate Professor; B.B.A., University of Oklahoma; B.A., M.A., University of Central Oklahoma; M.A., Ph.D., University of Oklahoma. *Rebel since 2008.*

#### **Yamashita, Takashi** - Full Graduate Faculty

Assistant Professor; B.A., Tokyo Gakugei University (Japan); M.A. Ball State University; Ph.D., Miami University. *Rebel since 2012.*

### Professors Emeriti

#### **Carns, Donald E.**

Professor; B.A., M.A., Southern Illinois University; Ph.D., Indiana University. UNLV Emeritus 1973.

#### **Fontana, Andrea**

Professor; B.A., M.A., Ph.D., University of California, San Diego. UNLV Emeritus 1976.

#### **Frey, James**

Professor and Dean; B.A., Augustana College; M.A., University of Iowa; Ph.D., Washington State University. UNLV Emeritus 1974.

## Doctor of Philosophy - Sociology

### Plan Description

The Doctor of Philosophy – Sociology offers programs designed for both students holding a bachelor's degree in sociology or a closely related discipline who have a strong record of academic success, are likely to be highly successful in graduate school, and who have a professional interest in, and commitment to, earning a doctorate in Sociology and for students who have already earned a Master's degree in Sociology or a closely related discipline, and who can demonstrate evidence of substantial expertise in Sociology. This program trains students in advanced sociological concepts and applications, as well as advanced theoretical and methodological frameworks for conducting original research. In addition, students develop at least 2 advanced areas of specialization from among the department's core areas of specialization. Sociology doctoral students also have the opportunity to participate in our pedagogy and postsecondary teacher training program. Graduates of this program are well prepared for academic research and teaching positions, as well as careers in applied and community sociology.

Educational outcomes for our doctoral program include: development of expertise in both classical and contemporary sociological theories, mastery of both quantitative and qualitative research methods and data analysis, development of specialized expert knowledge in at least two substantive areas, professional socialization, participation in professional organizations, oral presentation skills, familiarity with the process of academic publication of original research, and cultivation of analytical research and writing skills which culminate in the ability to author an original doctoral dissertation of substantial depth and quality. Graduate-level course work in sociology is restricted to students with graduate standing or graduate provisional status in the department, or to those students who have obtained prior written consent from instructors of specific courses in which enrollment is sought and from the graduate coordinator. Please refer to the Sociology Graduate Student Handbook for additional updated information, policies, and procedures.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.
2. Applicants to the Post-Bachelor's track must hold a bachelor's degree in sociology from a regionally accredited institution is required. Applicants to the Post-Master's track must hold a master's degree in sociology, or an equivalent master's degree, from an accredited institution in which you wrote and successfully defended a master's thesis.
3. Applicants must submit the following to the Sociology department:
  1. Satisfactory scores that are less than 5 years old on the general Graduate Record Examination (GRE).
  2. At least 3 letters of recommendation, preferably from faculty members who know the student's work, evaluating the student's ability to perform at the Ph.D.-level of study. These should include comments on the student's academic performance, motivation, character, and promise for success in the Ph.D. program.
  3. A statement of purpose, written by the applicant that evidences all of the following: writing skills, professionalism, educational and professional/career objectives, and specific areas of interest in sociology generally, and in the UNLV Department of Sociology specifically.
  4. Writing Samples:

1. Post-Bachelor's applicants: Two original writing samples of substantial length and quality that indicate student's writing and analytical skills, as well as sociological knowledge.
2. Post-Master's applicants: M.A.-level thesis or at least two original papers of substantial length and quality in an area of sociological inquiry solely written by the applicant.

If you are interested in applying for a Graduate Assistantship, please be sure to indicate this in your written statement, and complete and submit the Graduate Assistantship online application.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Post-Bachelor's Track**

Total Credits Required: 72

Course Requirements

#### **Required Courses – Credits: 20**

SOC 701 - Logic of Social Inquiry  
 SOC 702 - Quantitative Methods  
 SOC 704 - Advanced Analytical Techniques  
 SOC 705 - Qualitative Methods  
 SOC 707 - Proseminar I  
 SOC 723 - Classical Sociological Theory  
 SOC 724 - Issues in Contemporary Sociological Theory

#### **Elective Courses – Credits: 12**

Complete 12 credits of elective coursework. Up to 3 credits can be flex credits and at least 9 credits must be SOC 700-level.

#### **Professional Paper – Credits: 3**

SOC 794 - Professional Paper

After successfully completing the requirements above, students are eligible to earn the Master of Arts – Sociology.

#### **Advanced ProSeminar Course – Credits: 1**

SOC 708 - Proseminar II

#### **Elective Courses – Credits: 24**

Complete 24 credits of elective coursework. Identify 2 areas of specialization among the department's core areas of study, and complete a minimum of 6 credits in each area. Up to 6 credits can be flex credits and at least 18 credits must be SOC 700-level.

#### **Dissertation – Credits: 12**

SOC 799 - Dissertation

Degree Requirements

1. Of the 60 required course credit hours, a maximum of 9 hours may be used as flex credits toward any combination of the following: Independent Study; Directed Reading; an approved 600-level Sociology course that is unavailable at the 700 level; and/or an approved 700 level course in a related discipline.
2. A minimum of 63 credits must be completed in 700-level Sociology courses, including dissertation credits.
3. Students are strongly encouraged to enroll in SOC 709 – Learning to Teach Sociology. Doctoral students who have completed their comprehensive exams and SOC 709 may be eligible for autonomous teaching. Doctoral students teaching their own autonomous courses must be simultaneously enrolled in SOC 710 – Teaching Practicum, Teaching Practicum; after one semester of taking SOC

710 for credit, graduate student instructors may audit the class.

4. Any grade below a B will not be accepted for graduate credit. A grade below a B will result in probation. If a student receives two grades below a B, in the same or different courses, s/he will be separated from the program.
5. A student may be on academic probation a maximum of two times during their graduate career in Sociology; a third probation will result in separation from the program.
6. No student shall be allowed more than 2 simultaneous grades of Incomplete, except in the case of documented and approved emergency or medical leave.
7. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
8. Post-Bachelor's students must complete 3 credits of Professional Paper before defending their Professional Paper and submitting it to a reputable sociology journal for peer review. Students will establish an Examination Committee, hold a professional paper proposal meeting, author and defend an original piece of research or theory which is then signed-off on by committee members and submitted for peer-review to a reputable sociology journal. The paper need not be accepted for publication for the student to continue matriculating in the program, but the manuscript must make a significant scholarly contribution and be of a high enough quality to merit peer review.
  1. Students must orally present and defend their completed professional paper to her or his Examination Committee, and receive majority approval. There are 5 possible grades for the comprehensive

exams: Pass with Distinction; Pass; Conditional Pass with Rewrites (to be completed within two weeks of notification); Terminal Pass (pass but separated from program after graduation); or Fail.

2. After a successful defense of their professional paper, students must receive signatures of support from their Committee Chair and a majority of other Committee members prior to submitting their article manuscript to an approved peer-review sociology journal.
3. Students may complete this stage of the program only after successfully completing all 20 required credits, as well as a minimum of 12 credits of electives (including up to 3 flex credits).
4. Students may not take any comprehensive exams or complete more than 40 course credits before successfully completing this step in the program.
5. Students who do not successfully complete this requirement in a timely manner (before completing 40 credits) will be placed on probation.
6. After successful completion of all required courses (a minimum of 32 total course credits), 3 credits of professional paper, and this professional paper process (proposal, research, writing, oral defense and journal submission), students must submit all required paperwork to the Graduate College for completion of the Master of Arts in Sociology.
9. Post-Bachelor's students who, for personal, professional or academic reasons, decide not to continue on for a Ph.D. may be eligible for an optional exit plan with a Masters degree.
10. Dissertation credits may only be taken after the student successfully defends his/her dissertation prospectus and submits required

paperwork to the Graduate College. Students may not take more than 6 dissertation credits per semester.

11. In addition to a minimum of 60 hours of course work, 12 hours of dissertation credits, and successful completion of the professional paper process as described above, a doctoral student must successfully pass 2 comprehensive examinations in their chosen areas of specialization. Students should refer to the detailed guidelines governing the comprehensive exam process in the Graduate Programs Handbook (see Appendix 1).

1. The Area of Specialization comprehensive exams will be offered once a semester; students may only take 1 of these exams per semester. Intention to take a comprehensive exam must be given to the graduate coordinator and senior management assistant by the second week of the semester in which students intend to take the exam.
2. Students may not take a comprehensive exam until they have completed all required course work in these areas.
3. These specialty area comprehensive exams should reflect logical and substantive depth and breadth of knowledge of these areas. Students are expected to prepare for the comprehensive exams by reviewing class materials, meeting with their Graduate Advisory Committee, meeting with faculty sitting on the Areas of Specialization committees, looking at copies of old exams, and doing systematic independent preparation.
4. There are 4 possible grades for the comprehensive exams: Pass with Distinction; Pass; Conditional Pass with Rewrites (to be completed within two weeks of notification); or Fail.

5. A student must retake a failed comprehensive exam within one semester and successfully pass on the second attempt in order to remain in the program. A second failure in the same area will result in separation from the program. During the period of time between the initial Fail on a comprehensive exam and the re-take, the student may not take any other comprehensive exams.
6. Both comprehensive exams must be completed prior to the student's dissertation prospectus defense and advancement to candidacy.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for both the Master's and Doctoral portions of the program.
2. Doctoral students are required to complete a minimum of 12 credits of dissertation credits: SOC 799 - Dissertation , write an original dissertation of substantial quality and length on a sociological topic, and successfully defend this work in front of the student's Graduate Advisory Committee.
  1. Students must work with their Graduate Advisory Committee to ensure quality research, analysis and writing of the comprehensive exams and dissertation.
  2. Satisfactory performance on an oral defense of the dissertation prospectus to be held after the successful completion of all course work and the four comprehensive examinations is required. The oral defense will cover the student's dissertation proposal and any deficiencies on the comprehensive exams or in the student's program of study. Upon successful completion of the oral defense of the dissertation prospectus, the

student may advance to candidacy and enroll in dissertation credits.

3. Upon completion of the dissertation, a final oral defense will be held in front of the student's Graduate Advisory Committee.
4. Committee members must unanimously pass the student on her or his oral defense for the Ph.D. to be conferred.
3. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
4. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 2 Requirements: Post-Masters Track**

Total Credits Required: 51

Course Requirements

#### **Required Courses – Credits: 21**

SOC 701 - Logic of Social Inquiry  
SOC 702 - Quantitative Methods  
SOC 704 - Advanced Analytical Techniques  
SOC 705 - Qualitative Methods  
SOC 707 - Proseminar I  
SOC 708 - Proseminar II  
SOC 723 - Classical Sociological Theory  
SOC 724 - Issues in Contemporary Sociological Theory

#### **Advanced Theory Course – Credits: 3**

Complete one of the following courses:

SOC 725 - Seminar in Pragmatist Hermeneutics  
SOC 726 - Current Debates in Social Theory  
SOC 737 - Seminar in Criminological Theories  
SOC 746 - Seminar in Organizational Theory and Problems  
SOC 756 - Urban Theory: Culture and Community  
SOC 763 - Symbolic Interaction  
SOC 766 - Sociology of Culture

SOC 774 - Seminar in Feminist Theories and Research

SOC 795A - Seminar on Postmodernism

SOC 795B – Seminar on Critical Theory

WMST 701 - Feminist Theory

#### **Advanced Research Methods Course – Credits: 3**

Complete one of the following courses:

SOC 706 - Seminar in Advanced Statistical Analysis in the Social Sciences

SOC 717 - Urban Demography and Population Studies

SOC 757 - Urban Field Methods

SOC 767 - Visual Sociology: Image, Media, Culture

SOC 771 - The Virtual Society

WMST 702 - Principles of Feminist Inquiry

HIST 750 - Methods for the Study of Public History

HIST 752 - Modern Archives: Theory and Methodology

#### **Elective Courses – Credits: 12**

Complete 12 credits of elective coursework. Identify 2 areas of specialization among the department's core areas of study, and complete a minimum of 6 credits in each area.

Up to 6 credits can be flex credits and at least 6 credits must be SOC 700-level.

#### **Dissertation – Credits: 12**

SOC 799 - Dissertation

Degree Requirements

1. Of the 12 elective credit hours, a maximum of 6 hours may be used as flex credits toward any combination of the following: Independent Study; Directed Reading; an approved 600-level Sociology course that is unavailable at the 700 level; and/or an approved 700 level course in a related discipline.
2. A minimum of 45 credits must be completed in 700-level Sociology courses, including dissertation credits.
3. Students are strongly encouraged to enroll in SOC 709 - Learning to Teach Sociology.

Doctoral students who have completed their comprehensive exams and SOC 709 may be eligible for autonomous teaching. Doctoral students teaching their own autonomous courses must be simultaneously enrolled in SOC 710 - Teaching Practicum, Teaching Practicum; after one semester of taking SOC 710 for credit, graduate student instructors may audit the class.

4. Any grade below a B will not be accepted for graduate credit. A grade below a B will result in probation. If a student receives two grades below a B, in the same or different courses, s/he will be separated from the program.
5. A student may be on academic probation a maximum of two times during their graduate career in Sociology; a third probation will result in separation from the program.
6. No student shall be allowed more than 2 simultaneous grades of Incomplete, except in the case of documented and approved emergency or medical leave.
7. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
8. Dissertation credits may only be taken after the student successfully defends his/her dissertation prospectus and submits required paperwork to the Graduate College. Students may not take more than 6 Dissertation credits per semester.
9. In addition to a minimum of 39 hours of course work and 12 hours of dissertation credits, a doctoral student must successfully pass 2 comprehensive examinations in their chosen areas of specialization. Students should refer to the detailed guidelines governing the comprehensive exam process in the Graduate Programs Handbook. (See Appendix 1).

- a. The Area of Specialization comprehensive exams will be offered once a semester; students may only take 1 of these exams per semester. Intention to take a comprehensive exam must be given to the graduate coordinator and senior management assistant by the second week of the semester in which students intend to take the exam.
- b. Students may not take a comprehensive exam until they have completed all required course work in these areas.
- c. These specialty area comprehensive exams should reflect logical and substantive depth and breadth of knowledge of these areas. Students are expected to prepare for the comprehensive exams by reviewing class materials, meeting with their Graduate Advisory Committee, meeting with faculty sitting on the Areas of Specialization committees, looking at copies of old exams, and doing systematic independent preparation.
- d. There are 4 possible grades for the comprehensive exams: Pass with Distinction; Pass; Conditional Pass with Rewrites (to be completed within two weeks of notification); or Fail.
- e. A student must retake a failed comprehensive exam within one semester and successfully pass on the second attempt in order to remain in the program. A second failure in the same area will result in separation from the program. During the period of time between the initial Fail on a comprehensive exam and the re-take, the student may not take any other comprehensive exams.
- f. Both comprehensive exams must be completed prior to the student's



dissertation prospectus defense and advancement to candidacy.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for the program.
2. Doctoral students are required to complete a minimum of 12 credits of dissertation credits: SOC 799 – Dissertation , write an original dissertation of substantial quality and length on a sociological topic, and successfully defend this work in front of the student's Graduate Advisory Committee.
  - a. Students must work with their Graduate Advisory Committee to ensure quality research, analysis and writing of the comprehensive exams and dissertation.
  - b. Satisfactory performance on an oral defense of the dissertation prospectus to be held after the successful completion of all course work and the four comprehensive examinations is required. The oral defense will cover the student's dissertation proposal and any deficiencies on the comprehensive exams or in the student's program of study. Upon successful completion of the oral defense of the dissertation prospectus, the student may advance to candidacy and enroll in dissertation credits.
  - c. Upon completion of the dissertation, a final oral defense will be held in front of the student's Graduate Advisory Committee.
  - d. Committee members must unanimously pass the student on her or his oral defense for the Ph.D. to be conferred.
3. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.

4. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

## Sociology Courses

### SOC 602 - Sociology and Literature

Credits 3

Examination of selected ideas, concepts, and theories through use of fictional literature. Various topics include human alienation, social stratification, bureaucracy, prejudice, immigration, and deviance.

**Notes** This course is crosslisted with SOC 402. Credit at the 600-level requires additional work.

### SOC 603 - Techniques of Social Research

Credits 4

Introduction to research design, data gathering techniques, and sociological analysis of data.

**Notes** This course is crosslisted with SOC 403. Credit at the 600-level requires additional work.

### SOC 603L - Techniques of Social Research Lab

Credits 0

This undergraduate course may be used in the graduate program of study with the approval of the advisor. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

### SOC 604 - Statistical Methods in the Social Sciences

Credits 4

Study and practice with statistical methods especially useful in the presentation and interpretation of social work, psychological, sociological, and educational data.

**Notes** This course is crosslisted with SOC 404. Credit at the 600-level requires additional work.

### SOC 604L - Statistical Methods in the Social Sciences Lab

This undergraduate course may be used in the graduate program of study with the approval of the advisor. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

### SOC 607 - Environment and Society

Credits 3

Focuses on the conflict between private rights and the public interest and the extent to which this conflict affects society in the environmental arena.

**Notes** This course is crosslisted with SOC 407. Credit at the 600-level requires additional work.

### SOC 608 - Qualitative Research

Credits 3

Examination of the modes of observation, recording and reporting of the daily way of life of another (sub) culture studied by physical and perspectival closeness.

**Notes** This course is crosslisted with SOC 408. Credit at the 600-level requires additional work.

### SOC 610 - Sociology of Aging

Credits 3

Explores the problems of aging in various cultures. Notions such as the social construction of growing old, the myth of youth, and the crisis of retirement discussed along with other topics of aging.

**Notes** This course is crosslisted with SOC 410. Credit at the 600-level requires additional work.

### SOC 611 - Films, Self and Society

Credits 3

Understanding diversity and change in film themes and characterizations from the perspective of sociology. Specific topics vary from year to year and may investigate such things as "The Image of the American Hero," "Films as Social Protest," or "Science Fiction and Social Change." Emphasis on the American film.

**Notes** This course is crosslisted with SOC 411. Credit at the 600-level requires additional work.

### SOC 612 - Sociology of Art

Credits 3

Investigation into the complex relationship between social systems and their artistic outputs. Emphasis on social theory, especially the sociology of knowledge. Subjects include artistic employment, craft to art conversions, and art in relation to religion and science.

**Notes** This course is crosslisted with SOC 412. Credit at the 600-level requires additional work.

### SOC 613 - Sociology of Sport

Credits 3

Examination of the relationship of sport to societal institutions and processes. Behavior of fans, athletes, and sport organizations analyzed from a sociological view.

**Notes** This course is crosslisted with SOC 413.  
Credit at the 600-level requires additional work.

SOC 614 - Popular Culture  
Credits 3

Different types of culture, the democratization of values, the organization of tastes. Characteristic forms of popular culture: music, cinema, the electronic media, the print media, outdoors, travel, and the graphic arts.

**Notes** This course is crosslisted with SOC 414.  
Credit at the 600-level requires additional work.

SOC 615 - World Population Problems  
Credits 3

Examination of world and U.S. problems connected to rapid population growth, legal and illegal immigration, causes of sickness and death, and the impact of government population policies. Problems include changes in family size, mandatory sterilization, abortion, food as a political weapon, crime, and minority groups.

**Notes** This course is crosslisted with SOC 415.  
Credit at the 600-level requires additional work.

SOC 616 - Sociology of Work and Occupations  
Credits 3

Comparative examination of work in industrial society. Topics analyzed include labor markets, job satisfaction, occupational choice, and the leisure-work relationship.

**Notes** This course is crosslisted with SOC 416.  
Credit at the 600-level requires additional work.

SOC 617 - Sociology and Leisure  
Credits 3

Leisure in the United States and other societies. Leisure and work, family, education and religion. Leisure and quality of life, high culture, mass culture, and the leisure society.

**Notes** This course is crosslisted with SOC 417.  
Credit at the 600-level requires additional work.

SOC 621 - Classical Social Theory  
Credits 3

Major social theorists of the nineteenth and early twentieth centuries whose works have led to the development of sociology as a distinct discipline. Includes Durkheim, Marx, Simmel, and Weber.

**Notes** This course is crosslisted with SOC 421.  
Credit at the 600-level requires additional work.

SOC 622 - Contemporary Sociological Theory  
Credits 3

Major theorists and important schools of thought in contemporary sociology. Includes some or all of the following: structural functionalism, conflict theory, symbolic interactionism, ethno-methodology.

**Notes** This course is crosslisted with SOC 422.  
Credit at the 600-level requires additional work.

SOC 627 - Comparative Racial and Ethnic Relations  
Credits 3

Surveys racial and ethnic relations in different societies around the world, including the United States. Special attention given to structures of inequality and to social movements for racial justice and equality.

**Notes** This course is crosslisted with SOC 427.  
Credit at the 600-level requires additional work.

SOC 628 - Special Topics in Comparative Societies  
Credits 3

Comparative analysis of some salient aspects of U.S. society and societies around the world. Focuses on socialization, cultural and structural aspects (e.g., ethnicity, religion, economy, politics, gender, age), and informal modes of living. Specific focus varies with special topics offered.

**Notes** This course is crosslisted with SOC 428.  
Credit at the 600-level requires additional work.

SOC 629 - Globalization: Economic, Political, and Cultural Perspectives  
Credits 3

Addresses the nature of globalization, and the degree to which it differentially impacts people in various geographical regions and social strata. Traces the extent to which economic, political, and cultural systems rooted in nation-states during most of the twentieth century are likely to be replaced by emerging global institutions.

**Notes** This course is crosslisted with SOC 429.  
Credit at the 600-level requires additional work.

SOC 631 - Crime and Criminal Behavior  
Credits 3

General survey of the field of criminology emphasizing social efforts to understand, explain, and

deal with criminal behavior.

**Notes** This course is crosslisted with SOC 431.  
Credit at the 600-level requires additional work.

SOC 633 - Juvenile Delinquency  
Credits 3

Delinquent behavior within its social context, with analysis of gangs, subcultures and the patterns of anti-social activity. Evaluation of institutional controls and treatments.

**Notes** This course is crosslisted with SOC 433.  
Credit at the 600-level requires additional work.

SOC 634 - Penology & Social Control  
Credits 3

The social and historical development of prison systems and other forms of social control, as well as sociological theories of punishment. Includes recent research on prison population growth, offender rehabilitation, deterrence, recidivism, correctional administration, and inmate culture, as well as political repression and other related topics.

**Notes** This course is crosslisted with SOC 434.  
Credit at the 600-level requires additional work.

SOC 636 - Sociology of Poverty  
Credits 3

Theoretical framework for understanding Poverty as a consequence of socio-political structure rather than an individual level issue.

**Prerequisites** Consent of instructor.

SOC 641 - Social Inequality  
Credits 3

Analysis of causes and consequences of inequalities in wealth, prestige, and power in social life. Emphasis placed on the American class system, and inequalities of race, ethnicity, gender, and age also covered.

**Notes** This course is crosslisted with SOC 441.  
Credit at the 600-level requires additional work.

SOC 642 - Sociology of Gambling  
Credits 3

Analysis of patterns of participation in various forms of gambling; political/economic background of gambling; effects of gambling on communities, lifestyles, and value systems.

**Notes** This course is crosslisted with SOC 442.  
Credit at the 600-level requires additional work.

SOC 643 - Urban Sociology  
Credits 3

Analysis of the urban way of life, with attention to ecological and social characteristics of the city, urban problems, and trends in urban growth. Emphasis given to American society.

**Notes** This course is crosslisted with SOC 443.  
Credit at the 600-level requires additional work.

SOC 644 - Sociology of Occupations and Professions  
Credits 3

Examination of occupations and professions in the contemporary United States in terms of occupational choice, education, socialization into the occupation, career patterns, as well as changing work roles, functions, and ideologies.

**Notes** This course is crosslisted with SOC 444.  
Credit at the 600-level requires additional work.

SOC 645 - Men in Society  
Credits 3

Issues and problems of men in a society characterized by rapidly changing and ill-defined male gender roles. Perspectives from micro- and macrosociology. Varying branches of the 'men's movement' examined.

**Notes** This course is crosslisted with SOC 645.  
Credit at the 600-level requires additional work.

SOC 646 - Bureaucracy in Society  
Credits 3

Analysis of the structure and activities of modern large-scale organizations: conglomerates, voluntary associations, governmental bureaucracies, and multinational corporations.

**Notes** This course is crosslisted with SOC 446.  
Credit at the 600-level requires additional work.

SOC 647 - Marriage and the Family  
Credits 3

Study of the institutions of marriage and the family and analysis of various factors and forces affecting the family. Emphasis upon present trends.

**Notes** This course is crosslisted with SOC 447.  
Credit at the 600-level requires additional work.

SOC 649 - Sex and Social Arrangements  
Credits 3

Examination of human sexuality in social contexts. Emphasis on cross-cultural and historical comparisons with themes dealing with deviant

sexuality, pornography, and homosexuality.

**Notes** This course is crosslisted with SOC 449.

Credit at the 600-level requires additional work.

#### SOC 651 - Russian Society in Transition

Credits 3

Sociological survey of Russian society in transition.

Reviews major Soviet institutions and examines current attempts to transform Russian society. Special attention to the origins of glasnost and perestroika and the difficulties that the former Soviet Union faces in reforming its communist system and building democracy and a market economy.

**Notes** This course is crosslisted with SOC 451.

Credit at the 600-level requires additional work.

#### SOC 652 - Sociology of Youth Cultures

Credits 3

Examines the sources of youth cultures in Western and other societies and explores the causes, forms, and trajectories of various contemporary youth cultures using cross-cultural, historical, and psychological insights.

**Notes** This course is crosslisted with SOC 452.

Credit at the 600-level requires additional work.

#### SOC 653 - Gender and Society

Credits 3

Examines the social construction of gender across a range of institutional, interactional, intellectual and cultural contexts. Emphasis is on the intersection of gender with race, ethnicity, social class and sexuality.

**Notes** This course is crosslisted with SOC 453.

Credit at the 600-level requires additional work.

#### SOC 655 - Social Movements and Social Change

Credits 3

Sociological understanding of social movements and social change. Focuses on movements in the United States and around the world struggling over issues such as ethnicity, race, religion, and civil rights. Introduces theories and concepts about social movements emphasizing historical and cultural context, movement formation, organization, participants, ideology, and effects.

**Notes** This course is crosslisted with SOC 455.

Credit at the 600-level requires additional work.

#### SOC 658 - Sociology of Mental Health

Credits 3

Drawing on sociological theories and research, examines how various social forces shape experiences, symptoms, patterns of help-seeking, diagnoses, treatments, and prognoses of mental disorders by comparing those across various U.S. social classes, ethnic, gender, and age groups as well as in a global context.

**Notes** This course is crosslisted with SOC 458.

Credit at the 600-level requires additional work.

#### SOC 660 - Critical Sociology

Credits 3

Acquaints the student with a body of theoretical and empirical work variously designated as critical, new, or radical sociology.

**Notes** This course is crosslisted with SOC 460.

Credit at the 600-level requires additional work.

#### SOC 661 - Self and Society

Credits 3

Emphasis on those areas of social psychology primarily sociological in nature: the development of self and the changing self, the relationship of the individual to the group, and the process of socialization.

**Notes** This course is crosslisted with SOC 461.

Credit at the 600-level requires additional work.

#### SOC 662 - Mass Communications

Credits 3

Examination of communication processes with special emphasis on news media, the relationship between media, mass culture, political processes, and the individual.

**Notes** This course is crosslisted with SOC 462.

Credit at the 600-level requires additional work.

#### SOC 665 - Collective Behavior

Credits 3

Examines how people cope with unexpected or threatening events. Emphasis placed on developmental sequences and communication processes involved in social movements, crowds, and public issues.

**Notes** This course is crosslisted with SOC 465.

Credit at the 600-level requires additional work.

#### SOC 666 - Sociology of Medicine

Credits 3

Analyzes the medical profession and delivery of

health care. Medical education, medicine as social control, ethical issues, and the management of medical knowledge examined.

**Notes** This course is crosslisted with SOC 466. Credit at the 600-level requires additional work.

#### SOC 667 - Sociology of Science

Credits 3

Examines science as a social institution. Topics include the emergence of science in social context; recruitment, competition, and recognition in scientific careers; the social organization of the scientific community; and science in social change.

**Notes** This course is crosslisted with SOC 467. Credit at the 600-level requires additional work.

#### SOC 670 - Sociology of Deviance

Credits 3

Examines various themes of deviance and the making and breaking of norms, the creation of deviant identities and subcultures, and the relationship between deviance and society. Topics sometimes covered include white collar crime, prostitution, homosexuality, drug and alcohol abuse, and violence.

**Notes** This course is crosslisted with SOC 470. Credit at the 600-level requires additional work.

#### SOC 671 - Race and Ethnic Relations in America

Credits 3

Analysis of inter-and intra-group conflicts associated with racial, ethnic, and socio-cultural differences. Attention to both structural and symbolic forms of domination and oppression and to the effects of prejudice and discrimination on all members of society. Special attention given to social movements for justice and equality.

**Notes** This course is crosslisted with SOC 471. Credit at the 600-level requires additional work.

#### SOC 674 - Sociology of Religion

Credits 3

Critical study of the reciprocal relations of religion, culture, and society. Social sources of religious concepts, religious differentiation, and institutionalization, and the effect upon individual and group behavior.

**Notes** This course is crosslisted with SOC 474. Credit at the 600-level requires additional work.

#### SOC 675 - Political Sociology

Credits 3

Multiple dimensions and uses of power in society: development and resolution of public issues, political socialization, covert manipulation, and political movements.

**Notes** This course is crosslisted with SOC 475. Credit at the 600-level requires additional work.

#### SOC 676 - Sociology of Education

Credits 3

Application of sociological theory to the social institution of education. Primary attention directed toward the social organization of educational systems. Draws upon research from a variety of fields.

**Notes** This course is crosslisted with SOC 476. Credit at the 600-level requires additional work. Does not meet undergraduate professional education requirement.

#### SOC 678 - Women and Society

Credits 3

Theoretical framework for understanding sexism in our society as a problem of socio-political structure rather than as a problem of individual ideology and bias.

**Notes** This course is crosslisted with SOC 478. Credit at the 600-level requires additional work.

#### SOC 681 - Sociology of Substance Use, Abuse, and Addiction

Credits 3

Examination of the social contexts of substance use, abuse and addiction, programs for their amelioration and the sociological impact of such behavior.

Attention also given to both abuse and its treatment in the local community.

**Notes** This course is crosslisted with SOC 481. Credit at the 600-level requires additional work.

#### SOC 682 - Aging and Social Policy

Credits 3

Social policy responses to the problems of aging. Emphasis on political, economic and social contexts underlying policy responses to aging from both historical and contemporary perspectives.

**Notes** This course is crosslisted with SOC 482. Credit at the 600-level requires additional work.

SOC 684 - Sociology of Death and Dying

Credits 3

Examines the process of dying; emphasis placed on managing grief, the role of the dying patient, prolonging life, and the funeral industry.

**Notes** This course is crosslisted with SOC 484.

Credit at the 600-level requires additional work.

SOC 688 - Architectural Sociology

Credits 3

Examines how architecture influences and is influenced by sociocultural phenomena, human relationships, and self/identity. Applies a sociological perspective to the understanding of architecture in a wide variety of international places and cultures and examines how sociological theories and research methods can be applied to people-focused design.

**Notes** This course is crosslisted with SOC 488.

Credit at the 600-level requires additional work.

SOC 690 - Seminar

Credits 2-3

Study of selected topics of current interest in sociology and significance to the discipline. Course content changes each time offered, and students may repeat enrollment under different instructors.

**Notes** This course is crosslisted with SOC 490.

Credit at the 600-level requires additional work.

SOC 697 - Special Topics in Sociology

Credits 3

Offered irregularly with content not otherwise available in the department's curriculum. Opportunity for students and instructor to explore new dimensions and unrepresented areas of sociology. Three credits per course.

**Notes** This course is crosslisted with SOC 497.

Credit at the 600-level requires additional work.

SOC 701 - Logic of Social Inquiry

Credits 3

Advanced introduction to theoretical and methodological approaches in contemporary sociology and their interrelationship. Emphasis on three major paradigms in contemporary sociological research, their assumptions, operational strategies and policy implications.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of graduate coordinator.

SOC 702 - Quantitative Methods

Credits 3

In-depth review of procedures and issues associated with research design, measurement, sampling, and questionnaire construction in the conduct of survey research, experimentation, and other quantitative research techniques utilized by sociologists.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of graduate coordinator.

SOC 704 - Advanced Analytical Techniques

Credits 4

Advanced data base creation and analysis including study of appropriate statistics, mainframe computer experience with mass data software, analytical techniques with varying methodologies, data modelling.

**Notes** May be repeated to a maximum of eight credits.

**Prerequisites** Consent of graduate coordinator.

SOC 705 - Qualitative Methods

Credits 3

Gives students in-depth training in a variety of qualitative methods, both traditional and new (participant observation, latent content analysis, semiotics, deconstruction, conversation analysis, feminist methodology and critique, etc.). Explores both the theoretical justifications of each method and gives a hands-on experience in their various applications.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** SOC 701, consent of graduate coordinator.

SOC 706 - Seminar in Advanced Statistical Analysis in the Social Sciences

Credits 3

Examines current approaches to statistical modeling of discrete outcomes. Includes loglinear modeling, logistic regression, and event history analysis.

Emphasis on mathematical specification of these approaches, usage of software packages for model estimation and interpretation of results.

**Prerequisites** SOC 702, SOC 704, and consent of instructor.

SOC 707 - Proseminar I

Credits 1

Course in professional socialization and introduction

to graduate program in Sociology. Learn skills necessary for successful matriculation in the graduate program and in academia. Topics include: introduction to faculty research; review of program stages and requirements; conference participation; publishing; CV building.

**Prerequisites** Consent of instructor.

#### SOC 708 - Proseminar II

Credits 1

Course in professional socialization. Topics include: conference presentations, comprehensive exam preparation, abstract construction, scholarly writing and publishing, CV building, professional networking, and job market skills.

**Notes** Required for doctoral students; recommended for master's students.

**Prerequisites** ProSeminar I or consent of graduate coordinator.

#### SOC 709 - Teaching Sociology

Credits 3

Provides a key link for future teaching sociologists, assisting them to make the switch from consumers to educators of the sociological perspective. Places equal emphasis on theoretical issues surrounding teaching with the everyday logistical details of effectively managing a university classroom.

**Prerequisites** Graduate standing.

#### SOC 710 - Teaching Practicum

Credits 1

Sociology graduate students teaching autonomous classes are required to take this course. Topics covered include: applied pedagogical theory, student learning styles, assignment and test construction, grading, teaching technologies, and creative strategies for teaching particular sociological theories, methodologies and concepts.

**Notes** May be repeated to a maximum of two credits.

**Prerequisites** SOC 709 or consent of graduate coordinator.

#### SOC 713 - Seminar in Sport and Leisure

Credits 3

Topics announced each semester.

#### SOC 714 - Seminar in Work and Occupations

Credits 3

Examination of occupations and the concept of work

from the perspective of contemporary sociological research.

**Notes** Selected topics of work and occupations announced each semester. May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor or graduate advisor.

#### SOC 717 - Urban Demography and Population Studies

Credits 3

Training in quantitative techniques used by researchers in urban population studies. Students will become familiar with available sources of data, the measures of population composition and change, and will receive practical training on how to conduct their own research.

**Prerequisites** SOC 702, SOC 704 and SOC 711.

#### SOC 719 - Seminar in Deviance and Disorganization

Credits 3

Selected topics of deviance and disorganization with specific topics to be announced each semester.

#### SOC 723 - Classical Sociological Theory

Credits 3

In-depth analysis of the major figures in classical sociological theory. Primary focus on the works of Marx, Weber, Durkheim and Mead, supplemented by a brief discussion of other significant theorists (Comte, Spencer, Simmel, etc.).

**Prerequisites** Consent of graduate coordinator.

#### SOC 724 - Issues in Contemporary Sociological Theory

Credits 3

Examines major issues in contemporary sociological theory.

**Prerequisites** SOC 723 and consent of graduate coordinator.

#### SOC 725 - Seminar in Pragmatist Hermeneutics

Credits 3

Sociological examination of interpretation theory, its historical development, and contemporary applications. Traces the evolution of key ideas from ancient philosophy and biblical exegesis to pragmatist semiotics that moved hermeneutics beyond its traditional preoccupation with texts and toward the embodied, emotionally laden forms of



signification.

**Prerequisites** SOC 701, SOC 723 and SOC 724 or consent of instructor.

SOC 726 - Current Debates in Social Theory  
Credits 3

Advanced seminar in social theory. Includes a series of approximately three to four debates and/or new perspectives in current social theory literature. In-depth analysis of most up-to-date ideas and issues in social theory.

**Notes** Different topics covered each time course offered.

**Prerequisites** SOC 701, SOC 723, SOC 724 or consent of instructor.

SOC 733 - Advanced Social Documentation: Las Vegas  
Credits 3 or 6

Application of multiple theories and methods of social documentation and community studies. Students read classic works of social documentation, as well as conduct their own field research projects in and around Las Vegas utilizing multiple means of documentation, including ethnography, digital imaging, social mapping, GIS, and interviews.

**Prerequisites** Graduate standing and consent of instructor.

SOC 737 - Seminar in Criminological Theories  
Credits 3

Specific topics and theories to be announced each semester.

SOC 741 - Graduate Seminar in Social Stratification  
Credits 3

Analyzes the major systems of stratification including, but not limited to, race, class, and gender. Emphasis on U.S. and examines interrelationships among the various forms of social inequality.

**Prerequisites** Graduate standing.

SOC 742 - Sociology of Gambling  
Credits 3

Provides sophisticated understanding of sociological perspectives of gambling. Recreational gambling behaviors among a variety of subpopulations examined. Phenomenon labeled as "problem gambling" by medical experts also explicitly addressed as well as legislative attempts to confront

social costs.

**Prerequisites** Graduate standing or consent of instructor.

SOC 743 - Seminar in Urbanism and Urbanization  
Credits 3

Specific topics announced each semester.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor or graduate advisor.

SOC 745 - The Family-Work Nexus  
Credits 3

Examines integral, changing relationship between family and work, emphasizing systematic connection between the two. Includes linkages between work and family; socially constructed gender inequality through work and family activities; and work and family interconnections and conflicts within families whose interests vary.

**Prerequisites** Graduate standing.

SOC 746 - Seminar in Organizational Theory and Problems  
Credits 3

Specific theories and topics announced each semester.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor or graduate advisor.

SOC 747 - Seminar in Marriage and the Family  
Credits 3

Specific topics announced each semester.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor or graduate advisor.

SOC 748 - Gender, Sex, Society  
Credits 3

Advanced survey course and seminar on the sociology of gender, sex and sexuality. How does the sex/gender system operate within and through social structures? How are gender/sex/sexuality socially constructed? Examines these questions and ways in which gender/sex/sexuality are historically shaped and intertwined.

**Prerequisites** Graduate standing.

SOC 749 - Sociology of Gender and Work  
Credits 3

Political-economic analysis of the organization of work, production and reproduction of labor, and linkages between paid work in the market and unpaid work in the home. Specific topics include occupational sex segregation, segmented labor markets, dialectics of paid and unpaid labor, comparable worth, feminism and bureaucracy, emotional work, domestic labor and strategies for change.

**Prerequisites** Graduate standing.

SOC 750 - Seminar in the Sociology of Sex  
Credits 3

Surveys main theories and debates in sociology of sex and sexuality. Examines sex in relation to economic, cultural, political, international and historical contexts, and in relation to gender, class and racial systems of stratification.

**Prerequisites** Graduate standing.

SOC 751 - International Issues: Gender, Sex, Globalization  
Credits 3

Addresses multicultural feminisms, globalization, human/women's rights, and workings of sex/gender systems in various regions of the world.

**Prerequisites** Graduate standing.

SOC 752 - Global Migrations  
Credits 3

Seminar examining immigration to the United States. Evaluates structural factors that compell people to cross international boundaries, integration and settlement, and responses to such migratory patterns. Focus placed on immigrant labor, undocumented status, laws and policies, settlement and integration, gender, and new directions in immigration research.

SOC 753 - Racial Justice and Latina/os  
Credits 3

Seminar exploring the socio-historical and contemporary experiences of Latina/os in the United States. Topics include the role of Latina/os in the global economy, ethnic identity, social-demographics patterns, social integration, and political implications of the above. Emphasis is placed on social justice.

SOC 754 - Seminar in Population and Equity  
Credits 3

Seminar in social demography analyzing the influence of population growth and composition in the United States and globally. Variations in mortality, fertility, migration and their influence on social, cultural, political, and economic structures will be examined. Other topics include race/ethnic demographic patterns, population resources, economic development, and the environment.

SOC 755 - Social Movements and Social Change  
Credits 3

Provides deep, critical understanding of the presumptions, purposes, limitations, and special strengths of sociological theorizing or social movements and social change. Emphasis on questions about social movements and their historical context and movement formation, organization, careers, participants, ideology and effects.

**Prerequisites** Graduate standing.

SOC 756 - Urban Theory: Culture and Community  
Credits 3

Critical examination and evaluation of sociological theories about urban cultures and communities in light of recent literature, findings, and students' own observations.

**Prerequisites** SOC 701

SOC 757 - Urban Field Methods  
Credits 3

Training in methods for conducting qualitative research in urban settings. These include participant observation, interviewing, archival narrative analysis, and visual studies. Students will conduct their own research and discuss their emerging findings.

**Prerequisites** SOC 705 and SOC 756

SOC 763 - Symbolic Interaction  
Credits 3

Symbolic interaction from the traditional ideas of Mead to the postmodern versions of interactionism. Approaches derived from phenomenology, existential sociology, labeling, ethnomethodology, dramaturgy, feminist interactionism, and postmodernism covered. Pays particular attention to the self.

**Prerequisites** Graduate standing.

SOC 764 - Seminar in Social Psychology  
Credits 3  
Specific topics announced each semester.

SOC 766 - Sociology of Culture  
Credits 3  
Broad introduction in field of cultural sociology --its historical development, different theories and methods, definition and analytical problems.  
**Prerequisites** Graduate standing.

SOC 767 - Visual Sociology: Image, Media, Culture  
Credits 3  
Role of the visual in sociology as well as sociology of the visual. Addresses issues of visual research methods as well as reviewing theories of images, media and culture. Studies interplay between historical and contemporary social aspects of production and consumption of visual culture.  
**Prerequisites** Graduate standing.

SOC 768 - Environmental Sociology  
Credits 3  
Provides deep, critical understanding of macro-sociological dimensions of environment-society relationship. Emphasis given to sociological approaches to the ideology of environmental domination, capitalist economy and environmental sustainability, rationality and nature, and ecological social movements.  
**Prerequisites** Graduate standing.

SOC 769 - Ecology, Culture, Social Psychology  
Credits 3  
Explores reciprocal influences between ecology, culture, and social psychological dynamics. Examines relation between landscapes and mindscapes, implications of cultural constructions of nature for interactions with/in the natural environment and routine social psychological dynamics, ecological identity, and contours of an ecocentric perspective.  
**Prerequisites** Graduate standing.

SOC 770 - Racial and Ethnic Relations  
Credits 3  
Historical and contemporary studies of racial and ethnic relations, both in the US and around the world. Emphasis placed on contemporary theoretical and ethnographic work.

SOC 771 - The Virtual Society  
Credits 3  
This course examines the scholarship on the digitalization of society and computer-mediated communication, focusing especially on the psychological, interactional, cultural, and economic impacts of virtualization.  
**Prerequisites** SOC 701

SOC 773 - Seminar in Drug Use and Abuse  
Credits 3  
Specific topics announced each semester.

SOC 774 - Seminar in Feminist Theories and Research  
Credits 3  
Current issues in feminist theories and research and feminist critiques of social sciences. Discussions of theoretical as well as epistemological and methodological issues.  
**Prerequisites** Consent of instructor and graduate standing.

SOC 775 - Seminar in the Sociology of Mental Illness  
Credits 3  
Specific topics announced each semester.

SOC 776 - Seminar in Political Sociology  
Credits 3  
Explores relations between states and social institutions such as social classes, interest groups, and systems of cultural and material production and reproduction. Covers issues such as theories of the state, political behavior, and frameworks for the development of solutions to various contemporary problems.  
**Same as** (EPS 749)  
**Prerequisites** Graduate standing.

SOC 777 - Seminar in the Sociology of Education  
Credits 3  
Sociological analysis of the institution of education. Primary attention directed toward class, race, and gender inequalities.  
**Notes** May be repeated to a maximum of six credits.  
**Prerequisites** Consent of instructor.

SOC 779 - Seminar in Sociology of Aging  
Credits 3  
Specific topics announced each semester.

SOC 780 - Aging and Social Policy  
Credits 3  
Current issues in public policy in the sociology of aging. Examines the development of policies regarding aging in specific domains (e.g. labor force, retirement, income security, health care); assesses debates on society's risks and responsibilities for elders; and considers impact of history, demographic change, place, and heterogeneity of elders on resource allocation and the lives of elders, families, and communities.  
**Prerequisites** Graduate standing.

SOC 785 - Seminar in Social Policy and Evaluation Research  
Credits 3  
Interrelationships of the development of social policy and their requirements for ongoing evaluation as a component part of program development.

SOC 790 - Sociological Internship  
Credits 1 – 4  
Supervised internships in community organizations providing experience in administration, planning, and research. Placements concentrate on the organization and operation of agencies rather than on direct delivery of client services.  
**Notes** May be repeated to a maximum of six credits. One to four credits per semester.  
**Prerequisites** Consent of field experience coordinator.

SOC 791 - Field Experience in Sociology  
Credits 1 – 4  
Supervised internships in community organizations providing experience in administration, planning, and research. Placements concentrate on the organization and operation of agencies rather than on direct delivery of client services.  
**Notes** May be repeated to a maximum of six credits. One to four credits per semester.  
**Prerequisites** Consent of field experience coordinator.

SOC 794 - Professional Paper  
Credits 3

Research, analysis, writing and editing for students submitting a Professional Paper as the culminating experience in the M.A. program, or for students submitting an article for publication as required in the B.A. to Ph.D. program track.  
**Notes** Only three credits may count toward degree.  
**Prerequisites** SOC 711 or SOC 712, and SOC 704, SOC 705, SOC 724 and consent of graduate coordinator.

SOC 795 - Seminar  
Credits 3  
Specific topics announced each semester.  
**Notes** May be repeated to a maximum of nine credits (contingent on enrollment in different seminar topics).

SOC 796 - Directed Readings  
Credits 1 – 3  
Supervised readings on special topics selected in consultation with a sociology graduate faculty member.  
**Notes** May be repeated to a maximum of six credits.  
**Prerequisites** Consent of instructor.

SOC 797 - Independent Study  
Credits 1 – 3  
Consultation course consisting of individual student effort under guidance of instructor. Students assigned to or request assignment to specific problems in sociology on the basis of interest and preparation.  
**Notes** May be repeated to a maximum of six credits.  
**Prerequisites** Consent of instructor.

SOC 798 - Thesis  
Credits 3 or 6  
**Notes** May be repeated but only six credits applied to the student's program.  
**Grading** S/F grading only.

SOC 799 - Dissertation  
Credits 1 – 6  
Research, analysis, and writing toward completion of the dissertation and preparation for subsequent oral defense.  
**Notes** Students are required to complete twelve credits for their doctoral degree; may register for additional credits but they will not count toward degree.  
**Grading** S/F grading only.

**Prerequisites** Advancement to candidacy in  
Sociology Ph.D. program and consent of instructor.

## **World Languages and Cultures**

The focus on language, literature, and culture in the Spanish M.A. program offers a variety of study options in order to meet the growing demand for students who seek to acquire not only a humanistic preparation in a second language but also the necessary tools for an important practical application of a second language to their future careers. These include, among many others, areas such as public and private school teaching, communications, business, law, medicine, or further graduate studies at another institution of higher learning. Enrollment in small seminars allows students to interact easily with peers and create productive mentor relationships with the faculty.

*Ralph Buechler, Ph.D., Chair*

*Catherine Bellver, Ph.D., Graduate Coordinator*

## World Languages and Cultures Courses

### Chair

#### **Buechler, Ralph**

Associate Professor; B.A., Washington University; M.A., M.A.S., University of Illinois; Ph.D., University of Wisconsin, Madison. *Rebel since 1989.*

### Graduate Coordinator

#### **Bellver, Catherine G.**

Distinguished Professor; B.A., Northwestern University; M.A., Ph.D., University of California, Berkeley. *Rebel since 1972.*

### Graduate Faculty

#### **Arteaga, Deborah L.**

Professor; B.A., Wichita State University; M.A., University of Colorado, Boulder; Ph.D., University of Washington. *Rebel since 1992.*

#### **Bao, Ying**

Associate Professor; B.A., Jiangxi University; M.A., Nanjing Normal University; M.A., Ohio State University; Ph.D., Ohio State University. *Rebel since 2008.*

#### **Galindo, Jorge**

Associate Professor; Licenciatura, Letras Españolas Instituto Tecnológico de Monterrey; M.A., New Mexico State University; Ph.D., University of Kansas. *Rebel since 1997.*

#### **Harp, Margaret R.**

Associate Professor; B.A., Newcomb College; M.A., Ph.D., Tulane University. *Rebel since 1989.*

#### **Jara, Margarita**

Associate Professor; Licenciatura, Pontífica Universidad Católica del Perú; M.A., Ph.D. University of Pittsburgh. *Rebel since 2006.*

#### **Natale, Giuseppe**

Associate Professor; Laurea in Lettere, Università de Torino; M.A., Ph.D., University of Washington. *Rebel since 2000.*

#### **Rico, Alicia**

Associate Professor; Licenciatura, Universidad de

Alicante, Spain; M.A., Ph.D. University of Kansas. *Rebel since 2001.*

#### **Takemaru, Naoko**

Associate Professor; M.A., Michigan State; M.A., Monterey Institute of International Studies; Ph.D., Claremont Graduate University. *Rebel since 2003.*

### Professors Emeriti

#### **Koester, Rudolf**

Emeritus Professor; B.A., M.A., University of California, Los Angeles; Ph.D., Harvard University. *UNLV Emeritus 1969-2000.*

#### **Schmiedel, Donald**

Emeritus Associate Professor; B.A., Kent State University; M.A., Ph.D., University of Southern California. *UNLV Emeritus 1965-1999.*

## Master of Arts - Hispanic Studies

### Plan Description

The M.A. program in Hispanic Studies is flexible, allowing students to concentrate on culture, language, literature, and translation. The program aims to meet the needs of students interested in teaching and other professions.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Before acceptance into the program, students will take a pre-qualifying examination administered by the department that will test their Spanish language skills. Students must pass this examination before being officially admitted to the M. A. program. The exam may be retaken once.

Candidates for admission to the graduate program in foreign languages should have the equivalent of the UNLV undergraduate major in the corresponding language with a minimum grade point average of 3.00 in the major field. In some cases, a student who has a bachelor's degree in another discipline could be admitted to the program upon the recommendation of the department graduate advisor. Possible transfer credit will be determined by the graduate coordinator in accordance with the policies of the Graduate College. To apply for admission, submit to the Graduate College an application, official transcripts of all college-level work, and two letters of recommendation. Applicants must also take a pre-qualifying Spanish grammar administered by the Department.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 33

Course Requirements

#### Required Linguistics Course – Credits: 3

Complete one of the following courses:

FOL 714 - Current Issues in Second Language Acquisition

SPAN 717 - Seminar in Spanish Linguistics

#### Required Courses – Credits: 6

SPAN 709 - Writing Workshop

SPAN 720 - Textual Analysis

#### Elective Courses – Credits: 18-21

A variety of courses in language, linguistics, literature, and culture will be offered to allow students to complete their degree. Students completing the Comprehensive Written Examination must complete a minimum of 21 credits of elective coursework, and students completing the Research Project must complete a minimum of 18 credits of elective coursework.

#### Culminating Experience – Credits: 3-6

Select one of the following:

SPAN 798 - M. A. Written Examination

SPAN 797 - M.A. Written Project (6 credits)

Degree Requirements

1. Completion of a minimum of 33 credit hours with a minimum GPA of 3.00.
2. Students may apply a maximum of 9 credits at the 600-level to their graduate program.
3. Courses taken for graduate credit may not be repeated, with the exception of SPAN 730 and SPAN 740, provided that topics change.

Graduate courses may not be audited without the consent of the instructor. A grade below a B- will place a student on probation. A second grade below a B- will cause a student to be separated from the program.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements for the program.
2. To qualify for graduation, each student must successfully pass a written examination or complete a final research project.
  - a. a. Written Examination: Students choosing the written examination option must include SPAN 798 in their program. After completing 21 credits, students, in consultation with the graduate coordinator, will choose for their examination three of the following six areas of concentration: Peninsular culture, Latin American culture, linguistics, Peninsular literature, Latin American literature, and translation theory. Once these areas are chosen they may not be changed, nor may the option be changed. The exam will be based on the courses taken as well as on a supplementary list of readings for each area available in the department. The exam will include three 90-minute sections drafted by the examination committee. Grammatical accuracy will also be a graded component of the exam. After passing all three parts of the written exam, students will take an oral examination covering these chosen areas. Students who do not pass any part(s) of the exam will be allowed to retake the failed part(s) only once. Students who do not pass all three parts and the oral examination

the second time will be separated from the program.

- b. Final Research Project: Students with at least a 3.8 GPA may (upon the approval of the Spanish graduate coordinator) substitute a final project (six credits of SPAN 797) for the written examination. Before initiating the project, students will establish a three-member faculty examination committee and secure their approval of the project proposals. If the proposal is rejected twice, the student must take the written examination option. When accepted projects are completed, students will take the Final Examination, an oral examination covering the final project. The committee shall consist of the project director, two other members of the graduate faculty, and the graduate faculty representative. Students whose projects are not acceptable for defense will be allowed to resubmit their project the following semester. Students who do not secure approval the second time will be separated from the program. More detailed guidelines will be distributed to enrolled students.



## World Languages and Cultures Courses

### FOL 614 - Romance Linguistics

Credits 3

Historical development of the Romance languages from Latin. Comparison of the structure of the modern Romance languages. Emphasis on Spanish, French, and Italian.

**Notes** This course is crosslisted with FOL 414. Credit at the 600-level requires additional work. May be repeated to a maximum of twelve credits.

### FOL 699 - Application of Linguistics to the Teaching of Languages

Credits 3

Examination of second language acquisition theory and its application to the teaching of foreign languages.

**Notes** This course is crosslisted with FOL 499. Credit at the 600-level requires additional work. May be repeated to a maximum of twelve credits.

### FOL 714 - Current Issues in Second Language Acquisition

Credits 3

Investigates current issues in theoretical studies of second language acquisition, and a comparison of L1/L2 acquisition in light of recent developments in linguistic theory and empirical studies. Provides overview of major subdisciplines, issues and approaches.

### FOL 715 - Theory of Translation

Credits 3

Readings in the theory of translation, as well as textual analysis of existing translations to and from several different languages.

**Notes** Taught in English.

**Prerequisites** Graduate student with advanced knowledge of one foreign language, consent of instructor.

### FOL 716 - Workshop in Translation

Credits 3

Explores problems inherent in the translation of foreign texts, works on individual and common projects with assistance of instructor.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate student with advanced knowledge of one foreign language, FOL 715, consent of instructor.

### FOL 717 - Independent Studies in Translation

Credits 3

Opportunity to pursue an individualized course or project in translation studies.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate student with advanced knowledge of one foreign language, FOL 715, FOL 716, consent of instructor.

### FRE 621 - Literature of the Middle Ages

Credits 3

Graduate credit (12 credits maximum) may be obtained for courses designated 650 or above when taught by graduate faculty. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Notes** Credit at the 600-level requires additional work.

### FRE 632 - Renaissance Literature

Graduate credit (12 credits maximum) may be obtained for courses designated 650 or above when taught by graduate faculty. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Notes** Credit at the 600-level requires additional work.

### FRE 650 - History of the French Language

Credits 3

Graduate credit (12 credits maximum) may be obtained for courses designated 650 or above when taught by graduate faculty. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Notes** Credit at the 600-level requires additional work.

### FRE 653 - French Institutions and Cultural Life

Graduate credit (12 credits maximum) may be obtained for courses designated 650 or above when taught by graduate faculty. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Notes** Credit at the 600-level requires additional work.

FRE 654 - The Arts in France

Graduate credit (12 credits maximum) may be obtained for courses designated 650 or above when taught by graduate faculty. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Notes** Credit at the 600-level requires additional work.

FRE 655 - The Culture of Paris

Graduate credit (12 credits maximum) may be obtained for courses designated 650 or above when taught by graduate faculty. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Notes** Credit at the 600-level requires additional work.

FRE 690 - Selected Topics of French Literature

Graduate credit (12 credits maximum) may be obtained for courses designated 650 or above when taught by graduate faculty. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Notes** Credit at the 600-level requires additional work.

FREN 701 - Methods of Literary Research and the Writing of Essays

Credits 3

Bibliography and documentation including the techniques of the dissertation française (three-part essay).

FREN 702 - French Literary Criticism

Credits 3

History of literary criticism from the Renaissance to the present. Theories and techniques of twentieth-century literary criticism emphasized.

FREN 703 - Guided Reading and Research

Credits 1 – 3

**Notes** May be repeated for up to six credits.

FREN 704 - Selected Topics in French Literature

Credits 3

Study of a particular literary theme or individual writer as chosen by the professor. Topics vary.

**Notes** May be repeated for credit.

FREN 722 - The Courtly Romance

Credits 3

Studies origins and variations of French courtly romance. Close analysis of prevalent themes and stylistic found in works of Marie de France, Chretien de Troyes, and Guillaume de Lorris.

**Prerequisites** Graduate standing or consent of instructor.

FREN 741 - The Development of the French Novel

Credits 3

Evolution of the novel as a genre, from Chretien de Troyes to contemporary writers.

**Notes** Taught in French.

FREN 742 - The Evolution of French Theater

Credits 3

Study of the development of the dramatic arts in France.

**Notes** Taught in French.

FREN 743 - The Evolution of French Poetry

Credits 3

Evolution of poetry, from the troubadours to contemporary French poets.

**Notes** Taught in French.

FREN 755 - Studies in Francophone Culture

Credits 3

Presentation of French speaking cultures outside metropolitan France.

**Notes** May be repeated for up to six credits. Taught in French.

FREN 792 - Studies in Francophone Literature

Credits 3

Study of principal works in Francophone literature.

**Notes** May be repeated for up to six credits. Taught in French.

FREN 797 - Thesis

Credits 3 – 6

ITAL 603 - Advanced Reading Proficiency in Italian

Credits 3

Develops advanced reading skills in Italian through textual analysis of a broad range of reading materials.

**Notes** This course is crosslisted with ITAL 403.

Credit at the 600-level requires additional work. May be repeated to a maximum of twelve credits.

ITAL 662 - Dante's Divine Comedy

Credits 3

A select reading in the Divine Comedy with some reference to Dante's other works, Convivio, Monarchia, and Vita Nuova.

**Notes** This course is crosslisted with ITAL 462. Credit at the 600-level requires additional work. Taught in English.

SPAN 650 - Advanced Topics in Hispanic Literature

Credits 3

In-depth critical study of selected themes, modes, literary forms and strategies in Hispanic literature. May be repeated provided the sub-title is different.

**Notes** This course is crosslisted with SPAN 450. Credit at the 600-level requires additional work. Maybe be repeated to a maximum of twelve credits.

SPAN 696 - Spanish Dialectology

Credits 3

Study of different regional varieties of the Spanish language throughout the world, including differences in pronunciation, grammar, and vocabulary. Sociolinguistic aspects also covered.

**Notes** This course is crosslisted with SPAN 496. Credit at the 600-level requires additional work. May be repeated to a maximum of twelve credits.

SPAN 703 - Guided Reading and Research

Credits 1 – 3

**Notes** May be repeated to a maximum of six credits.

SPAN 708 - Teaching Literature in Language Classes

Credits 3

Investigation of concerns related to integration of short stories into Spanish language skill classes. Variety of pedagogical resources and techniques explored. Students acquire a collection of teaching ideas, materials and strategies.

**Notes** Taught in Spanish.

SPAN 709 - Writing Workshop

Credits 3

Enhance students' writing skills in Spanish. Some grammar issues reviewed. Analyzes writing techniques for different texts such as reports, summaries, reviews and analytical papers. Student apply these techniques to their own assignments.

**Notes** Taught in Spanish.

**Prerequisites** Successful completion of departmental Spanish language exam.

SPAN 710 - Studies in the Spanish Language

Credits 3

Current approaches to topics related to the Spanish language.

**Notes** May be repeated with different topics to a maximum of six credits. Taught in Spanish.

**Prerequisites** SPAN 717 or consent of instructor.

SPAN 713 - Spanish Sociolinguistics

Credits 3

Overview of the varied manifestations of the Spanish language. Topics include regional variation, social variation, code-switching, and bilingualism.

**Notes** Taught in Spanish.

**Prerequisites** SPAN 717 or consent of instructor.

SPAN 716 - Romance Linguistics

Credits 3

Linguistic development of Latin into the different Romance languages and dialects, with background of social and cultural history of the Romance-speaking area.

SPAN 717 - Seminar in Spanish Linguistics

Credits 3

Introduction to structure of the Spanish language within framework of theoretical linguistics. Topics covered include analysis of Spanish sound system, word formation processes, and sentence structure.

**Notes** Taught in Spanish.

SPAN 720 - Textual Analysis

Credits 3

Introduction to textual criticism, based on broad concept of text used by current theoretical trends. Theoretical approaches include Russian Formalism to Postmodernism and application to different texts such as film, architecture, comics, commercial ads, TV programs, fashion and literary texts.

**Notes** Taught in Spanish.

SPAN 730 - Studies in Hispanic Culture

Credits 3

Study of aspects of culture reflected in works of scholars, writers, artists, and the mass media.

**Notes** May be repeated with different topics for a maximum of six credits. Taught in Spanish.

SPAN 740 - Studies in Hispanic Literature  
Credits 3

Covers selected works in Hispanic literature which reflect prominent cultural trends. Texts studied may represent historical periods, a literary genre, or a single important author. Variety of critical perspectives and overview of the sociopolitical environment incorporated.

**Notes** May be repeated with different topics. Taught in Spanish.

SPAN 770 - Studies in Translation  
Credits 3

Offers access to wide range of topics in Spanish-English translation. Focuses on a specific area, such as the translation of cultural difference or the formal problems involved in the translation of poetry.

**Notes** May be repeated a maximum of six credits. Taught in Spanish.

**Prerequisites** SPAN 709 and ENG 602 or ENG 603.

SPAN 780 - Studies in Interpretation  
Credits 3

Offers access to wide range of topics in Spanish-English interpretation. Focuses on a specific area, such as advanced medical, legal or conference interpretation.

**Notes** May be repeated to a maximum of six credits. Taught in Spanish.

**Prerequisites** SPAN 709 and ENG 602 or ENG 603.

SPAN 796 - Independent Study  
Credits 3

Individual reading projects under direction of a faculty member. Department approval must be obtained prior to registration.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Department approval prior to registration.

SPAN 797 - M.A. Written Project  
Credits 3

Development and undertaking of a capstone project in the M.A. program. Approval from student's M.A. Committee must be obtained prior to registration.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Approval from student's M.A. Committee.

SPAN 798 - M. A. Written Examination  
Credits 3

Preparation for the written examination, including the supplementary reading lists. Generally taken in the same semester as written M. A. exam.

**Notes** May not be repeated for credit.

**Grading** Grade will be pass/fail based on the results of the examination.

**Prerequisites** Consent of graduate coordinator.

## College of Sciences

The natural and mathematical sciences represent the dual cutting edges of our technological future. UNLV's College of Sciences is dedicated to making this future real, in the creation of new knowledge through research, and in the application of that knowledge in the classroom and in the development of technological advances to benefit society. These are the guiding principles that bring students, faculty, and staff together. Whether in a small discussion session, in a research laboratory or in the field, College of Sciences graduate students are in an environment in which learning, discovery, and innovation are the common goals. Many students choose a graduate institution based on the reputation of an individual faculty scholar or laboratory group. This is often an excellent approach to find the right match between a new graduate student and a mentor. Still, students who come to UNLV's College of Sciences without a particular graduate project in mind can count on identifying potential major professors who are receptive to a wide array of interests and backgrounds. Through its active programs of research and teaching, the College of Sciences has established a remarkable foundation of state-of-the-art instrumentation and facilities, providing an ever-growing set of opportunities for students who desire the best from their graduate experiences. Students who graduate with a Master's or doctoral degree from the College of Sciences fulfill their professional goals, and are competitive for career positions in academia, industry, or in governmental or non-governmental organizations.

*Timothy L. Porter, Dean*  
*Javier A. Rodriguez, Associate Dean*

## Master of Arts in Science

### Plan Description

The Master of Arts in Science (M.A.S.) is a non-thesis degree designed to allow students to increase their knowledge base in two different fields of science. Traditional and nontraditional students interested in pursuing or advancing science-related careers will discover a host of new opportunities after completing the program. Secondary science teachers who enroll in the program will be better prepared to face classroom challenges with a broad science background.

This program includes the current graduate faculty, course work and facilities from the departments of Biological Sciences, Chemistry, Geoscience, Mathematical Sciences, and Physics. Any graduate courses offered by these departments can be considered for inclusion in this degree program. In addition, graduate courses from Environmental Studies can be used to satisfy the second field.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.
2. Three letters of recommendation are required from individuals familiar with the applicant's academic and professional record and potential for advanced study in mathematics and science education.
3. A written statement/letter of intent is required and should include:
  1. summary of research interests
  2. reason(s) for wishing to earn an advanced degree
  3. motivation for attending UNLV

4. name of two intended department faculty mentors for major and minor
4. Submission of official transcripts of all colleges and universities attended.
5. *Copy of current curriculum vitae or resume is required.*

*Teacher Track*

1. A bachelor's degree in any of the sciences, mathematical sciences or secondary education with at least nine upper division (300 level or higher) science or math courses. Must be a licensed educator, have current licensure, a current job offer (ideally in grades 6-12) or degree in education.
2. A minimum grade point average (GPA) of 3.0 for all undergraduate work (based on a 4.00 scale).
3. Satisfactory scores on the General Graduate Record Examination (GRE). Successful applicants should complete the GRE or pass the Praxis I, II.
4. Copy of current teaching licensure, licensure certificate, letter of employment or diploma is required.

*General Track*

1. Satisfactory scores on the General Graduate Record Examination (GRE).

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

**Plan Requirements**

*See Subplan Requirements below.*

**Subplan 1 Requirements: Teacher Track**

Total Credits Required: 33

Course Requirements

**Major Field Courses - Credits: 9**

Complete 9 credits of advisor-approved coursework in a major field of study from the following list:

Biology  
Chemistry  
Physics  
Astronomy  
Mathematics  
Statistics  
Geoscience  
Water Resources Management

**Minor Field Courses - Credits: 6**

Complete 6 credits of advisor-approved coursework in a minor field of study from the following list:

Biology  
Chemistry  
Physics  
Astronomy  
Mathematics  
Statistics  
Geoscience  
Water Resources Management

**Elective Courses - Credits: 15**

Complete 15 credits of advisor-approved elective coursework.

**Culminating Experience - Credits: 3**

Complete either the capstone course or professional paper.

SCI 796 - Professional Paper, Master of Arts in Sciences

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 2 Requirements: General Track**

Total Credits Required: 33

Course Requirements

**Major Field Courses - Credits: 9**

Complete 9 credits of advisor-approved coursework in a major field of study from the following list:

Biology  
Chemistry  
Physics  
Astronomy  
Mathematics  
Statistics  
Geoscience  
Water Resources Management

### **Minor Field Courses - Credits: 6**

Complete 6 credits of advisor-approved coursework in a minor field of study from the following list:

Biology  
Chemistry  
Physics  
Astronomy  
Mathematics  
Statistics  
Geoscience  
Water Resources Management

### **Elective Courses - Credits: 15**

Complete 15 credits of advisor-approved elective coursework.

### **Culminating Experience - Credits: 3**

Complete either the capstone course or professional paper.

SCI 796 - Professional Paper, Master of Arts in Sciences

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Degree Requirements**

1. Complete a total of 33 credits of regular course work of which 50% must be at 700-level.

2. A student will be placed on academic probation if a minimum 3.00 grade point average is not maintained in all work taken in the degree program.
3. Students accepted into the Master of Arts in Science (MAS) program will be required to take at least 12 credits in one major area of one department and at least 6 credits in one minor field of science, mathematics or statistics from a different department in the College.
4. No more than 9 credits may be earned through independent study.
5. A maximum of 6 credits may be taken outside of the College.
6. Students must obtain advisor approval for all coursework. Coursework can be taken from Biology, Chemistry, Physics, Astronomy, Mathematics, Statistics, Geoscience, Science, Environmental Studies, Educational Psychology, Anthropology, Water Resource Management, Civil and Environmental Engineering, Electrical Engineering, Computer Science, Mechanical Engineering, Curriculum and Instruction.
7. All students must develop their degree program with the consent of the faculty mentor from their major department and the student's Graduate Advisory Committee. Student's progress will be assessed annually by the Advisory Committee.
8. Students must successfully complete a professional paper.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must complete a culminating experience.

## Master of Art in Sciences Courses

### BIOL 666 - Developmental Biology

Credits 3

Developmental biology from the perspectives of evolutionary biology, experimental embryology, cell biology, and genetics, emphasizing triploblastic animals. Mechanisms of patterning, tissue organization, genetic basis of morphological changes, developmental genetics of model species, and extension of these principles to selected problems in current biomedical research.

**Prerequisites** BIOL 304 and BIOL 445, or permission of instructor.

### SCI 620 - Middle School Mathematics Content:

Credits 1-3

Middle school mathematics content for teachers.

Topics: a) Number, Number Theory, Operations, b) Geometry & Measurement, c) Probability & Statistics, d) Algebra I, e) Euclidean/Non-Euclidean Geometry, f) Problem Solving, g) Algebra II, h) Pre-calculus, i) Computer/Technology Applications, j) other.

**Notes** Credit repeatable by topic (1-3 credits). Credits may not be applied to College of Sciences graduate program. The maximum number of credits that may be earned is 24.

### SCI 630 - Middle School Science Content:

Credits 1-3

Surveys middle school science content for middle school teachers. Introduces experimental and research-based aspects of the fields/topics listed through an inquiry approach to scientific content.

Fields/topics: a) Lab Safety and Science Process. b) Life Science IA. c) Life Science IB. d) Physical Science IA. e) Physical Science IB. f) Earth Science IA. g) Earth Science IB. h) other.

**Notes** May be repeated for credit in different fields/topics (1-3 credits); not available for credit in graduate programs in College of Sciences

### SCI 640 - High School Mathematics Content:

Credits 1-3

Surveys high school mathematics content for high school teachers. Introduces exploratory and research-based aspects of the fields/topics listed through a

problem solving approach to mathematics content. Fields/topics: a) Geometry. b) Advanced Algebra. c) Trigonometry and Analysis. d) Statistics and Probability. e) Calculus. f) Technology Applications. g) other.

**Notes** May be repeated for credit in different fields/topics (1-3 credits); not applicable to graduate programs in College of Sciences.

### SCI 650 - High School Science Content:

Credits 1-3

High school science content for teachers. a) Lab Safety, Science Process. b) Content Area Literacy. (c,d) Biology IA, IB (e,f) Earth Science IA, IB (g,h) Chemistry IA, IB (j,k) Physics IA, IB (l) AP Biology (m) AP Chemistry (n) AP Physics (o) other (p,q) Principles of Science, semesters 1,2.

### SCI 691 - Life Science for Federal Land Managers

Credits 1-3

For managers in BLM, BIA, Forest Service, Park Service and Fish and Wildlife Service. Meets GS 401 Certification needs. Conceptual understanding of basic biological principles: how information is acquired and evaluated within a scientific framework; modern cell theory; basic principles of molecular biology and genetics; and concepts of microevolution.

### SCI 796 - Professional Paper, Master of Arts in Sciences

Credits 1-3

Professional paper preparation, including review of literature or similar research effort. May be repeated to a maximum of three credits. Not permitted for students pursuing the M.S. Thesis option.

Prerequisite: Consent of instructor.



## Chemistry and Biochemistry

The Department of Chemistry and Biochemistry offers the Ph.D. in Chemistry or Radiochemistry and the M.S. in Chemistry or Biochemistry. Students may supplement their programs with appropriate courses from other science departments, with the approval of their graduate committee. Research may include projects conducted in the Chemistry Department, the Harry Reid Center, the Desert Research Institute, or the Environmental Protection Agency.

For additional information contact: Kathleen A. Robins (Graduate Coordinator) at (702) 895-3510. Web address: can be accessed through the UNLV home page at <http://sciences.unlv.edu/Chemistry/prospgrads.htm>

*David Hatchett, Ph.D., Chair*  
*Kathleen Robins, Ph.D., Graduate Coordinator*  
*Kenneth Czerwinski, Ph.D., Graduate Coordinator - Radiochemistry (PhD)*

## Chemistry Faculty

### Chair

**Hatchett, David W.** - *Full Graduate Faculty Professor; Environmental & Analytical Chemistry; B.S., California State University, Stanislaus; Ph.D., University of Utah. Rebel since 1999.*

### Graduate Coordinator

**Robins, Kathleen A.** - *Full Graduate Faculty Associate Professor; Physical Chemistry; B.S., University of Illinois, Champaign-Urbana; M.A., Ph.D., University of California, Santa Barbara. Rebel since 1991.*

### Graduate Faculty

**Abel-Santos, Ernesto** - *Full Graduate Faculty Associate Professor; Biochemistry; B.S., Autonomous University of Santo Domingo, Dominican Republic; Ph.D., Washington University School of Medicine, St. Louis. Rebel since 2006.*

**Bhowmik, Pradip** - *Full Graduate Faculty Professor; Organic & Polymer Chemistry; M.S., University of Dhaka, Bangladesh; M.S., University of Massachusetts at Dartmouth; Ph.D., University of Massachusetts at Amherst. Rebel since 1998.*

**Czerwinski, Kenneth R.** - *Full Graduate Faculty Professor; Radiochemistry; B.A., Knox College; Ph.D., University of California, Berkeley. Rebel since 2003.*

**Gary, Ronald K.** - *Full Graduate Faculty Associate Professor; Biochemistry; B.S., University of California, Irvine; Ph.D., Cornell University. Rebel since 1999.*

**Heske, Clemens** - *Full Graduate Faculty Professor; Materials Chemistry; Diploma, TH Darmstadt, Germany; Ph.D., University of Wurzburg, Germany. Rebel since 2004.*

**Hodge, Vernon F.** - *Full Graduate Faculty Professor; Environmental & Analytical Chemistry; B.A., M.S., San Diego State University; Ph.D., University of California, San Diego. Rebel since 1982.*

**Kang, Jun Young**

Assistant Professor, *Organic Chemistry*.

**Kleiger, Gary** - Full Graduate Faculty

Assistant Professor, *Biochemistry*.

**Lee, Dong-Chan** - Full Graduate Faculty

Associate Professor; *Organic & Materials Chemistry*; B.S., M.S., Kyungpook National University, Korea; Ph.D., University of Massachusetts, Lowell. *Rebel since 2005*.

**Naduvath, Balakrishnan** - Full Graduate Faculty

Professor; *Physical & Environmental Chemistry*; M.S., University of Calicut, India; Ph.D., Indian Institute of Technology, Kanpur. *Rebel since 2002*.

**Orgill, MaryKay** - Full Graduate Faculty

Associate Professor; *Chemical Education*; B.S. Brigham Young University; M.S., Ph.D., Purdue University. *Rebel since 2003*.

**Spangelo, Bryan L.** - Full Graduate Faculty

Professor; *Biochemistry*; B.S., Keene State College; Ph.D., George Washington University Medical Center. *Rebel since 1994*.

**Steinberg, Spencer** - Full Graduate Faculty

Professor; *Environmental & Organic Chemistry*; B.A., Ph.D., University of California, San Diego. *Rebel since 1989*.

**Sung, Hong** - Full Graduate Faculty

Associate Professor, *Biochemistry*.

**Tirri, Lawrence J.** - Full Graduate Faculty

Assistant Professor; *Biochemistry*; B.S., Fairleigh Dickinson University; Ph.D., Fordham University. *Rebel since 1997*.

**Zhang, Hui** - Full Graduate Faculty

Associate Professor, *Biochemistry*.

**Professors Emeriti****Alsup, William M.**

Emeritus Associate Professor; B.S., M.E., Ph.D., University of Wyoming. *UNLV Emeritus 1964-1991*.

**Billingham, Edward J., Jr.**

Emeritus Professor; B.S., Lebanon Valley College;

Ph.D., Pennsylvania State University. *UNLV*

*Emeritus 1965-1988*.

**Earl, Boyd**

Professor; B.S., University of Idaho; M.S., Ph.D., University of California, Berkeley. *UNLV Emeritus 1976*.

**Emerson, David W.**

Emeritus Professor; B.A., Dartmouth College; M.S., Ph.D., University of Michigan. *UNLV Emeritus 1981-1998*.

**Grenda, Stanley C.**

Associate Professor; B.S., DePaul University; M.S., University of Arizona; Ph.D., Lehigh University. *UNLV Emeritus 1967*.

**Titus, Richard L.**

Emeritus Professor; B.A., DePaul University; Ph.D., Michigan State University. *UNLV Emeritus 1967-1997*.

## Doctor of Philosophy - Chemistry

### Plan Description

The Ph.D. degree in chemistry is primarily a research-based program that includes sufficient advanced course work to provide a strong background from which students may pursue forefront research, under the direct guidance of a faculty member, in their chosen areas of interest. The program is designed to develop the professional skills required to function as an independent researcher in chemistry.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

For preferential consideration, please submit materials for Fall semester admission by February 1, and for Spring semester, by October 1.

1. The applicant is required to submit a completed Graduate College application, application fee and official transcripts to the Graduate College with copies submitted to the department.
2. Admission to the Ph.D. degree program in Chemistry requires a B.S. degree or a M.S. degree in Biochemistry, Chemistry, Biology, or a related discipline.
3. A minimum grade point average (GPA) of 3.00, on a 4.0 scale, for all undergraduate or graduate work is required for admission to the program.
4. In addition, the Graduate College application and official transcripts, the Department of Chemistry requires a statement of interest from the applicant. A letter of application should state interests and goals for graduate study. This is a 1-2 page essay describing the applicant's reasons for considering graduate study, goals after

completion of the graduate degree, and the applicant's specific areas of interest.

5. The Department of Chemistry requires three letters of recommendation from persons familiar with the academic record of the applicant. Each letter should detail the potential of the applicant for advanced graduate work in Chemistry or Biochemistry.
6. The Department of Chemistry requires scores for GRE, General Record Exam, for admission.
7. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### Subplan 1 Requirements: Post-Bachelor's Track

Total Credits Required: 60

Course Requirements

#### Graduate Seminar Course – Credits: 5

CHEM 691 - Graduate Seminar in Chemistry

A minimum of 3 presentations are required.

#### Coursework Elective Courses – Credits: Minimum of 12

A minimum of 12 credits of advisor-approved coursework electives. These courses may include but are not limited to:

CHEM 710 - Environmental Aquatic Chemistry  
CHEM 715 - Environmental Organic Chemistry  
CHEM 725 - Advanced Organic Chemistry  
CHEM 726 - Organic Synthesis  
CHEM 735 - Advanced Physical Chemistry

CHEM 745 - Instrumental Analysis-Inorganic  
CHEM 749 - Polymer Chemistry  
CHEM 750 - Advanced Construction Scheduling  
CHEM 770 - Protein Chemistry  
CHEM 771 - Metabolism and Energetics  
CHEM 772 - Nucleic Acid Chemistry  
CHEM 773 - Physical Biochemistry  
CHEM 775 - Bioanalytical Environmental  
Toxicology  
CHEM 783 - Spectral Interpretation  
CHEM 793 - Special Topics

### **Research Elective Courses – Credits: 31**

Complete 31 credits of advisor-approved research electives. These courses may include but are not limited to:

CHEM 792 - Research Seminar  
CHEM 795 - Independent Study  
CHEM 796 - Dissertation Prospectus  
CHEM 797 - Directed Research

### **Dissertation – Credits: 12**

CHEM 799 - Dissertation

### **Degree Requirements**

1. Doctoral students in Chemistry are required to complete a minimum of 60 credit hours beyond the baccalaureate.
2. All students are required to maintain a minimum a 3.00 grade point average in all graduate-level courses. Two grades of B- are permitted in the degree program as long as the GPA remains at or above 3.00. One grade of C+ or lower will result in academic probation even if the overall GPA is above 3.0. Two grades of C+ or lower will result in automatic suspension or separation from the program.
3. All students must meet with their advisory committee on a yearly basis, and all students must complete an annual evaluation form.
4. A dissertation advisor must be chosen by the end of the first semester, and the Doctoral Advisory Committee must be appointed prior to the end of the second semester. An approved graduate degree program must be

filed prior to the beginning of the third semester of enrollment. All students must meet these deadlines; failure to do so will result in academic probation. Failure of a student on academic probation to meet these requirements within the next semester could result in separation from the pr m.

5. The Doctoral Advisory Committee must consist of the faculty advisor (chair), chemistry graduate faculty in the discipline of study, one additional chemistry graduate faculty member, and one graduate-college representative from outside the department. Failure to identify an advisor and form this committee will result in the student being placed on academic probation. The use of committee members external to UNLV is allowed with approval from the examination committee. External members without graduate faculty status at UNLV will be non-voting members of the Ph.D. examination committee.
6. All students are required to schedule an interview with the advisor either before or during the first semester of study. If the student does not select an advisor, the Graduate Coordinator will assign a temporary advisor. The purpose of the initial interview is to develop a plan of course work for the first year.
7. All students are required to schedule a diagnostic interview with the Doctoral Advisory Committee before the end of the 2nd semester. The purpose of the interview is to develop a list of recommended courses and design the student's degree program, which must be submitted prior to completing 16 credits of course work toward the degree.
8. All students must prepare a dissertation proposal for a Proposal Defense Examination. The student should register for the Dissertation Prospectus course. This examination must be completed prior to the end of the fourth semester. To remain in good standing students are required to develop and defend a dissertation prospectus no later than the fourth semester of enrollment. If a student does not defend a dissertation prospectus they will be placed

on academic probation. The Proposal Defense Examination focuses on the dissertation proposal and the student's ability to perform the research. It includes a formal oral presentation of the student's dissertation proposal, research to date, and questions by the dissertation advisory committee on the dissertation topic. The Proposal Defense Examination is to be taken prior to the Comprehensive Examination.

9. Advancement to Candidacy. Students will advance to candidacy if the Comprehensive Examination is passed and the enrolled coursework is successfully completed based on the evaluation of the students Doctoral Advisory Committee. The comprehensive exam will consist of written and oral components as defined by the Ph.D. Examination Committee. Satisfactory performance on the Comprehensive Examination requires that Ph.D. students have a basic knowledge of the discipline of study. It also requires the student to follow the guidelines established for each discipline (i.e., Biochemistry, Physical Chemistry, Analytical Chemistry, Inorganic Chemistry and Organic Chemistry). The student's Doctoral Advisory Committee or the faculty from the discipline of study will determine the format and content of both the written and oral exams.
10. The Ph.D. Examination Committee will determine if the student passes the Comprehensive Examination. If a student fails any part of the Comprehensive Examination, the Ph.D Examination Committee will determine if the student is allowed to retake the portion of the comprehensive exam that is not passed.
  1. Students who fail to pass any part of the Comprehensive Examination or Proposal Defense on the first attempt must successfully complete a second attempt (as specified by the Ph.D. Examination Committee) within the next six months to remain in the program.
  2. Failure to advance to candidacy by the end of the sixth semester of

enrollment will result in the student being placed on academic probation. Failure to advance to candidacy by the end of the seventh semester will result in the student being separated from the program.

3. Students who enter the program with a baccalaureate degree and who fail the second examination may be allowed to continue as a Master of Science student with the consent of the Doctoral Advisory Committee.
4. A student who has successfully passed both the Proposal Defense and Comprehensive Examinations will advance to candidacy for the Ph.D. degree.
5. After advancement, subsequent years of study will be required for the graduate student to complete their degree. The duration of this period will depend on the success of the research project as defined by the Doctoral Advisory Committee.
6. Completed coursework will only be counted towards the graduation requirements of this program for eight years if the student completed a baccalaureate degree. It is recommended that students publish at least one research-based manuscript in a peer-reviewed journal prior to graduation.
7. Satisfactory performance on the final examination will consist of the presentation and defense of the dissertation research. The defense will consist of an oral presentation open to the public, a short period of questions from the public, a closed session of questions from the Doctoral Advisory Committee, and a closed deliberation and vote by just the Doctoral Advisory Committee members. Any graduate faculty member may attend the

closed session of questions of the defense.

11. It is expected that each student be a teaching assistant for a minimum of two courses prior to graduation. It is also expected that each student publish research-based manuscripts in peer-reviewed journals.

#### Graduation Requirements

*See Plan Degree Requirements below.*

#### **Subplan 2 Requirements: Post-Master's Track**

Total Credits Required: 30

#### Course Requirements

#### **Graduate Seminar Course – Credits: 5**

CHEM 791 - Graduate Seminar

A minimum of 3 presentations are required.

#### **Elective Courses – Credits: 13**

Complete 13 credits of advisor-approved electives. These courses may include but are not limited to:

CHEM 710 - Environmental Aquatic Chemistry  
CHEM 715 - Environmental Organic Chemistry  
CHEM 725 - Advanced Organic Chemistry  
CHEM 726 - Organic Synthesis  
CHEM 735 - Advanced Physical Chemistry  
CHEM 745 - Instrumental Analysis-Inorganic  
CHEM 749 - Polymer Chemistry  
CHEM 750 - Advanced Construction Scheduling  
CHEM 770 - Protein Chemistry  
CHEM 771 - Metabolism and Energetics  
CHEM 772 - Nucleic Acid Chemistry  
CHEM 773 - Physical Biochemistry  
CHEM 775 - Bioanalytical Environmental Toxicology  
CHEM 783 - Spectral Interpretation  
CHEM 793 - Special Topics

#### **Dissertation – Credits: 12**

CHEM 799 - Dissertation

#### Degree Requirements

1. Doctoral students entering the Ph.D. program with an approved M.S. degree in Chemistry or a closely related discipline, are required to complete a minimum of 30 credit hours in the Ph.D. program at UNLV comprised of courses at the 700-level.
2. All students are required to maintain a minimum a 3.00 grade point average in all graduate-level courses. Two grades of B- are permitted in the degree program as long as the GPA remains at or above 3.00. One grade of C+ or lower will result in academic probation even if the overall GPA is above 3.0. Two grades of C+ or lower will result in automatic suspension or separation from the program.
3. All students must meet with their advisory committee on a yearly basis, and all students must complete an annual evaluation form.
4. A dissertation advisor must be chosen by the end of the first semester, and the Doctoral Advisory Committee must be appointed prior to the end of the second semester. An approved graduate degree program must be filed prior to the beginning of the third semester of enrollment. All students must meet these deadlines; failure to do so will result in academic probation. Failure of a student on academic probation to meet these requirements within the next semester could result in separation from the program.
5. The Doctoral Advisory Committee must consist of the faculty advisor (chair), chemistry graduate faculty in the discipline of study, one additional chemistry graduate faculty member, and one graduate-college representative from outside the department. Failure to identify an advisor and form this committee will result in the student being placed on academic probation. The use of committee members external to UNLV is allowed with approval from the examination committee. External members without graduate faculty status at UNLV will be non-voting members of the Ph.D. examination committee.
6. All students are required to schedule an interview with the advisor either before or during the first semester of study. If the

student does not select an advisor, the Graduate Coordinator will assign a temporary advisor. The purpose of the initial interview is to develop a plan of course work for the first year.

7. All students are required to schedule a diagnostic interview with the Doctoral Advisory Committee before the end of the 2nd semester. The purpose of the interview is to develop a list of recommended courses and design the student's degree program, which must be submitted prior to completing 16 credits of course work toward the degree.
8. All students must prepare a dissertation proposal for a Proposal Defense Examination. The student should register for the Dissertation Prospectus course. This examination must be completed prior to the end of the fourth semester. To remain in good standing students are required to develop and defend a dissertation prospectus no later than the fourth semester of enrollment. If a student does not defend a dissertation prospectus they will be placed on academic probation. The Proposal Defense Examination focuses on the dissertation proposal and the student's ability to perform the research. It includes a formal oral presentation of the student's dissertation proposal, research to date, and questions by the dissertation advisory committee on the dissertation topic. The Proposal Defense Examination is to be taken prior to the Comprehensive Examination.
9. Advancement to Candidacy. Students will advance to candidacy if the Comprehensive Examination is passed and the enrolled coursework is successfully completed based on the evaluation of the students Doctoral Advisory Committee. The comprehensive exam will consist of written and oral components as defined by the Ph.D. Examination Committee. Satisfactory performance on the Comprehensive Examination requires that Ph.D. students have a basic knowledge of the discipline of study. It also requires the student to follow the guidelines established for each discipline (i.e., Biochemistry, Physical Chemistry,

Analytical Chemistry, Inorganic Chemistry and Organic Chemistry). The student's Doctoral Advisory Committee or the faculty from the discipline of study will determine the format and content of both the written and oral exams.

10. The Ph.D. Examination Committee will determine if the student passes the Comprehensive Examination. If a student fails any part of the Comprehensive Examination, the Ph.D Examination Committee will determine if the student is allowed to retake the portion of the comprehensive exam that is not passed.
  1. Students who fail to pass any part of the Comprehensive Examination or Proposal Defense on the first attempt must successfully complete a second attempt (as specified by the Ph.D. Examination Committee) within the next six months to remain in the program.
  2. Failure to advance to candidacy by the end of the sixth semester of enrollment will result in the student being placed on academic probation. Failure to advance to candidacy by the end of the seventh semester will result in the student being separated from the program.
  3. Students who entered the program with a master's degree who fail the examination a second time will be separated from the program.
  4. A student who has successfully passed both the Proposal Defense and Comprehensive Examinations will advance to candidacy for the Ph.D. degree.
  5. After advancement, subsequent years of study will be required for the graduate student to complete their degree. The duration of this period will depend on the success of the research project as defined by the Doctoral Advisory Committee.
  6. Completed coursework will only be counted towards the graduation

requirements of this program for six years. It is recommended that students publish at least one research-based manuscript in a peer-reviewed journal prior to graduation.

7. Satisfactory performance on the final examination will consist of the presentation and defense of the dissertation research. The defense will consist of an oral presentation open to the public, a short period of questions from the public, a closed session of questions from the Doctoral Advisory Committee, and a closed deliberation and vote by just the Doctoral Advisory Committee members. Any graduate faculty member may attend the closed session of questions of the defense
11. It is expected that each student be a teaching assistant for a minimum of two courses prior to graduation. It is also expected that each student publish research-based manuscripts in peer-reviewed journals.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### Plan Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public. The student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Doctor of Philosophy - Radiochemistry

### Plan Description

The Radiochemistry Ph.D. Program is a student-driven research intensive program stressing fundamental aspects of radiochemistry science. It was established by the Departments of Health Physics and Chemistry and includes participants from the Harry Reid Center, Nuclear Science and Technology Group. The program is administered by the UNLV Graduate College. The Ph.D. program requires 60 credits of research and courses beyond the baccalaureate degree. Credit is required for four courses in nuclear chemistry, radiochemistry, detectors, and laboratory. The remaining courses are based on the area of interest of the student and include laboratory research. Students are obliged to maintain a B average and show progress in their research. The curriculum and research provides a comprehensive and interdisciplinary examination of topics and experiences necessary to produce graduates who are ready to secure employment and participate in radiochemistry research.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Admission to the program is granted annually for the fall semester. Applicants should refer to both the radiochemistry and Graduate College websites for specific application deadlines.

Admission requirements include:

1. Completed Graduate College Application including applicable fees.
2. An earned undergraduate degree from a regionally accredited institution in the field of chemistry, radiochemistry, health physics, engineering or other related field with a



minimum GPA of 3.0. Applicants with a GPA below 3.0, but not less than 2.75, may be admitted on a provisional basis.

3. Three letters of recommendation including one letter from an individual who can evaluate the applicant's ability to conduct graduate work at the PhD level. A second letter of recommendation must come from someone who has supervised the candidate in a work setting.
4. A current resume.
5. A statement of purpose explaining the applicant's career goals and why the doctorate would enhance the likelihood of achieving those goals. The statement should also explain why the applicant believes that he or she is qualified to conduct academic work at the advance graduate level. Finally, the statement should address the specific area of specialization the student would like to emphasize.
6. A score ranking in the 50th percentile or higher in the verbal and quantitative sections of the Graduate Record Exam (GRE).
7. Students meeting all of the above admission requirements may be asked to meet with the admission committee for a personal interview.
8. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 60

Course Requirements

### **Core Courses – Credits: 12**

RDCH 701 - Applied Nuclear Physics

RDCH 702 - Radiochemistry

HPS 602 - Radiation Detection

HPS 603 - Radiation Physics and Instrumentation Laboratory

### **Electives – Credits: 30-36**

Complete 30-36 credits of advisor-approved electives.

### **Dissertation – Credits: 12-18**

CHEM 799 - Dissertation

### **Degree Requirements**

1. Students must complete a minimum of 60 credit hours with a minimum GPA of 3.00.
2. RDCH 702 must be completed before enrolling in RDCH 710.
3. Students enrolled in the Radiochemistry Ph.D. program are required to maintain satisfactory progress toward the degree as determined by the student's academic advisor and advisory committee. To maintain satisfactory progress in the Radiochemistry Ph.D. program, a student must:
  - a. Maintain a cumulative grade point average of 3.0 or above each semester enrolled.
  - b. Receive a grade of B (3.0) or above in all core Radiochemistry courses. If less than a B is earned in any given course, it may be repeated. The student must be in good standing to repeat a course, and courses may not be repeated more than one time.
  - c. Schedule and take the oral qualifying exam within 1.5 years of satisfactorily completing the core Radiochemistry courses.
  - d. Pass the dissertation prospectus defense within 3 years of entering the Radiochemistry Ph.D. program.
  - e. Participate in Radiochemistry seminar. Students are required to participate in the weekly Radiochemistry seminar each semester they are in residence at UNLV. Students may only be

exempted from this requirement due to scheduling conflicts, with the prior approval of their academic advisor.

4. Failure to make satisfactory progress as determined by the student's academic advisor and/or advisory committee may include: failure to complete six credits per calendar year toward the degree program; unsatisfactory grades (including Incompletes, grades below a B, or Withdrawals); failure to consult with the academic advisor when requested; failure to establish a graduate advisory committee; failure to establish the groundwork for an acceptable dissertation; failure of oral qualifying examination; failure to pass prospectus defense; or, continuous or willful neglect and/or intentional or continuous disregard for laboratory safety procedures.
5. To advance to candidacy, students are required to pass an oral exam on their research and an outside topic related to radiochemistry.
6. Complete all requirements for the Ph.D. degree within eight years, or six years if entering the program with a master's degree. If these requirements are not met, the program may place the student on academic probation or drop him/her from the Ph.D. program.
7. In consultation with his/her advisor, a student will organize a dissertation committee. The graduate advisory committee is responsible for guiding students through the Radiochemistry Ph.D. program. Upon entering the program, the Radiochemistry Graduate Coordinator will serve as academic advisor to all students until individual advisory committees have been established. The responsibility of establishing an advisory committee falls upon the students. By the end of the first year in the program, students must select an advisory committee chair who will also serve as the student's academic advisor from that point forward. By the end of the second year in the program, students must select the

remaining members of the graduate advisory committee.

8. The graduate advisory committee consists of at least four graduate faculty members as follows:
  - a. Advisory Committee Chair - must have full graduate faculty status in Radiochemistry.
  - b. Graduate College Representative - must have full graduate faculty status at UNLV in a program outside of Radiochemistry and the host department. Faculty with status in Radiochemistry may not serve as the GC Rep.
  - c. Committee Member - must have affiliate, associate or full graduate faculty status in Radiochemistry.
  - d. Committee Member - must have affiliate, associate or full graduate faculty status in Radiochemistry.
9. The oral qualifying exam must be taken within 1.5 years of successfully completing the radiochemistry core courses listed above. The exam is designed to test students on the fundamental science underlying radiochemistry, including all content covered in the core courses. In addition, students are tested on their depth of knowledge in their area of research specialization.
  1. The oral qualifying exam is held in closed session and is given by the qualifying examination committee. This committee is made up of a minimum of three members, the advisory committee chair, another member of the UNLV radiochemistry faculty, and an affiliate, associate or full graduate faculty status member in Radiochemistry. All members of the qualifying examination committee must be present during the oral qualifying exam. Additional members of the student's advisory committee may participate on the qualifying examination at the discretion of the

academic advisor, but are not required to be present.

2. For the exam, students are responsible for preparing two presentations which are presented to the qualifying examination committee. The first presentation is an overview of the student's proposed research, including relevant literature, a proposed research plan and summary/results of current research. This presentation may serve as the basis for the Prospectus Defense as well. The second presentation summarizes a recent published scientific article on a topic not directly related to the candidate's proposed dissertation research. The article must be approved by the student's advisor prior to the exam.
3. Students who do not pass the exam may repeat the exam one time within 6 months, but no sooner than 3 months from the first attempt. Students who do not pass the oral qualifying exam on the second attempt will be severed from the program.
4. Students must schedule and take the oral qualifying exam within 1.5 years of satisfactorily completing the core Radiochemistry courses.
2. Students are required to participate in the weekly Radiochemistry seminar each semester they are in residence at UNLV. Students may only be exempted from this requirement due to scheduling conflicts, with the prior approval of their academic advisor.
3. Students must prepare and successfully defend their dissertation prospectus prior to the completion of their sixth semester. The prospectus will cover a review of the relevant literature, a statement of the problem or hypothesis to be examined and a research plan for the project. The prospectus will be defended to the student's advisory committee and will be open to the general

research community. All members of the student's advisory committee must be present at the student's prospectus defense.

4. Students are expected to write a dissertation demonstrating both knowledge of a specific topic and the ability to conduct high quality original research. The dissertation must be accepted by the student's advisory committee prior to the completion of the degree program. Upon completion of the dissertation, the dissertation must be defended to the student's advisory committee in a public dissertation defense.
5. To advance to candidacy, students are required to pass the oral qualifying exam and successfully defend their dissertation prospectus. Upon successful completion of the prospectus defense, students shall be promoted to Ph.D. candidate the term following the defense.
6. The dissertation must be written in collaboration with the student's academic advisor and advisory committee. The dissertation must be accepted by the student's advisory committee prior to the completion of the degree program. Students must enroll in six credits of dissertation work each semester they are working on the dissertation and the minimum number of dissertation credits required for graduation is twelve.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Master of Science - Biochemistry

### Plan Description

Our graduate programs offer exceptional research opportunities for advanced training in a wide variety of chemistry related disciplines including Organic, Physical, Analytical, Computational, Materials, Biochemistry, and Chemical Education. The graduate student to faculty ratio in the department is nearly one-to-one. Consequently, our diverse student body receives a high level of individualized interaction with excellent faculty through customized research projects, specialized course work, professional development, and graduate seminars. In addition, many of our research programs offer exciting interdisciplinary collaborations with local scientists, as well as with scientists nationally and internationally.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Admission to the program requires an undergraduate degree in chemistry, chemical engineering, biology, biochemistry or a related discipline, with a cumulative GPA of 2.75, or of 3.00 for the last two years of undergraduate work. An application must be submitted to the Graduate College, with official transcripts of all college-level work. Two letters of recommendation from individuals able to assess the applicant's potential as a graduate student should be sent directly to the department along with an additional set of transcripts. The GRE General Aptitude Test results must be received by the department prior to regular admission.

Individuals with apparent deficiencies in their undergraduate background may be required to enroll in selected courses in addition to those listed in the

following section to satisfy M.S. degree requirements.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 30

Course Requirements

#### Graduate Seminar Course – Credits: 2

CHEM 791 - Graduate Seminar

#### Elective Courses – Credits: 18

Complete 18 credits of advisor-approved coursework electives. These courses may include but are not limited to:

CHEM 770 - Protein Chemistry

CHEM 771 - Metabolism and Energetics

CHEM 772 - Nucleic Acid Chemistry

CHEM 773 - Physical Biochemistry

CHEM 672 - Biochemistry Laboratory

BIOL 701 - Ethics in Scientific Research

#### Independent Study – Credits: 4

CHEM 795 - Independent Study

#### Thesis – Credits: 6

CHEM 798 - Thesis

Degree Requirements

1. Students must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
2. No grade lower than C is acceptable, and only one grade below B- is permitted.
3. At least 12 credits of electives must be in courses at the 700-level.

4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Each student is required to present a departmental seminar on the student's research prior to graduation. This requirement is in addition to the two credits of Graduate Seminar. Students are expected to attend weekly departmental seminars.
6. Each student is required to meet at least once per semester with the student's examination committee. At the meeting in the semester prior to the expected term of graduation, the student will be asked to make a detailed presentation on research progress. The committee will then make recommendations to be addressed by the student during the remainder of the student's research program, in writing the thesis, and in the final examination. The committee may request another meeting prior to the final exam if deemed necessary.
7. It is expected that each student be a teaching assistant for a minimum of two courses prior to graduation. It is also expected that each student publish at least one research-based manuscript in a peer-reviewed journal.

electronic version to ProQuest by the posted deadline.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved

## Master of Science - Chemistry

### Plan Description

Our graduate programs offer exceptional research opportunities for advanced training in a wide variety of chemistry related disciplines including Organic, Physical, Analytical, Computational, Materials, Biochemistry, and Chemical Education. The graduate student to faculty ratio in the department is nearly one-to-one. Consequently, our diverse student body receives a high level of individualized interaction with excellent faculty through customized research projects, specialized course work, professional development, and graduate seminars. In addition, many of our research programs offer exciting interdisciplinary collaborations with local scientists, as well as with scientists nationally and internationally.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Admission to the program requires an undergraduate degree in chemistry, chemical engineering, biology, biochemistry or a related discipline, with a cumulative GPA of 2.75, or of 3.00 for the last two years of undergraduate work. An application must be submitted to the Graduate College, with official transcripts of all college-level work. Two letters of recommendation from individuals able to assess the applicant's potential as a graduate student should be sent directly to the department along with an additional set of transcripts. The GRE General Aptitude Test results must be received by the department prior to regular admission.

Individuals with apparent deficiencies in their undergraduate background may be required to enroll in selected courses in addition to those listed in the

following section to satisfy M.S. degree requirements.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 30

Course Requirements

#### Graduate Seminar Course – Credits: 2

CHEM 791 - Graduate Seminar

#### Elective Courses – Credits: 18

Complete 18 credits of elective coursework.

#### Independent Study – Credits: 4

CHEM 795 - Independent Study

#### Thesis – Credits: 6

CHEM 798 - Thesis

Degree Requirements

1. Students must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
2. No grade lower than C is acceptable, and only one grade below B- is permitted.
3. At least 12 credits of electives must be in courses at the 700-level.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion.

- Please see Graduate College policy for committee appointment guidelines.
5. Research and course work specializations are available in analytical chemistry, biochemistry, organic chemistry, and physical chemistry. The individual student's program of course work must be selected in consultation with and approved by the student's committee, and may include courses from selected disciplines other than chemistry, such as biology, physics, civil and environmental engineering, or water resources management.
  6. Each student is required to present a departmental seminar on the student's research prior to graduation. This requirement is in addition to the two credits of Graduate Seminar. Students are expected to attend weekly departmental seminars.
  7. Each student is required to meet at least once per semester with the student's examination committee. At the meeting in the semester prior to the expected term of graduation, the student will be asked to make a detailed presentation on research progress. The committee will then make recommendations to be addressed by the student during the remainder of the student's research program, in writing the thesis, and in the final examination. The committee may request another meeting prior to the final exam if deemed necessary.
  8. It is expected that each student be a teaching assistant for a minimum of two courses prior to graduation. It is also expected that each student publish at least one research-based manuscript in a peer-reviewed journal.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.

## Chemistry Courses

CHEM 602 - Scientific Software for the Microcomputer

Credits 1

Use of computer software for graphing, statistics, structure drawing, information retrieval, word processing, and self-paced learning.

**Notes** This course is crosslisted with CHEM 402.

Credit at the 600-level requires additional work.

CHEM 621 - Physical Chemistry

Credits 3

Thermodynamics, solution behavior, and equilibrium.

**Notes** This course is crosslisted with CHEM 421.

Credit at the 600-level requires additional work.

CHEM 622 - Physical Chemistry II

Credits 3

Kinetic theory, chemical kinetics, electrochemistry, introductory quantum chemistry, and states of matter.

**Notes** This course is crosslisted with CHEM 422.

Credit at the 600-level requires additional work.

CHEM 628 - Quantum Chemistry

Credits 3

Introduction to quantum mechanics and molecular orbital theory as related to bonding, spectra, and reactivity. Includes an introduction to computerized electronic structure calculations.

**Notes** This course is crosslisted with CHEM 428.

Credit at the 600-level requires additional work.

CHEM 631 - Advanced Inorganic Chemistry

Credits 3

Atomic and nuclear properties. Structure, symmetry, and bonding for molecular and solid-state compounds. Solution behavior, solubility, acid-based properties. Chemistry of the elements and periodic trends.

**Prerequisites** CHEM 422 or equivalent.

CHEM 649 - Polymer Chemistry

Credits 3

Synthesis, characterization, morphology, bulk and solution properties of polymers; polymerization mechanisms.

**Notes** This course is crosslisted with CHEM 449.

Credit at the 600-level requires additional work.

**Prerequisites** Graduate standing.

CHEM 655 - Instrumental Analysis

Credits 4

Fundamental laws and principles of instrumental determinations, including spectroscopy, spectrophotometry, electrochemical methods, and thermal analysis as main areas of study.

**Notes** This course is crosslisted with CHEM 455.

Credit at the 600-level requires additional work.

CHEM 672 - Biochemistry Laboratory

Credits 2

Introduction to analytical techniques of biochemistry as tools to study cellular components. Techniques may include centrifugation, spectrophotometry, chromatography, and electrophoresis.

**Notes** This course is crosslisted with CHEM 472.

Credit at the 600 level requires additional work. This course offered by another department may also be taken for graduate credit.

CHEM 676 - Advanced Topics in Biochemistry

Credits 3

In depth study of selected advanced topics in biochemistry, cancer biochemistry or other medically-related topics in biochemistry.

**Notes** May be repeated (different topic) once for a total of 6 credits to be applied toward graduate degree program.

This course is crosslisted with CHEM 476. Credit at the 600-level requires additional work.

**Prerequisites** CHEM 475, graduate standing or permission of instructor.

CHEM 678 - Endocrinology

Credits 3

Survey of the structure and function of vertebrate endocrine systems, with emphasis on the biochemical basis of hormone action and the role of cell communication in endocrine physiology.

**Same as** BIOL 448

**Notes** This course is crosslisted with CHEM 478.

Credit at the 600-level requires additional work.

CHEM 691 - Graduate Seminar in Chemistry

Credits 1

Attendance and participation in seminar presentations and discussions of specialized topics. Includes



student presentations. Students required to enroll for a minimum of two semesters and present a minimum of two presentations.

**Notes** May be repeated to a maximum of six credits.

**Grading** S/F

CHEM 710 - Environmental Aquatic Chemistry  
Credits 3

Study of the chemistry of natural waters, emphasizing chemical speciation and the interaction of aqueous media with soil and air. Considerable attention given to the use and limitations of thermodynamic equilibrium models of chemical speciation.

**Prerequisites** Graduate standing or consent of instructor.

CHEM 715 - Environmental Organic Chemistry  
Credits 3

Organic chemistry of natural waters, soils and the atmosphere, emphasizing chemical reactions, sorption, bio-concentration and fate and transport. Use and limitation of thermodynamic and kinetic models and the extrapolation of laboratory data to environmental conditions.

**Prerequisites** Graduate standing in chemistry or consent of instructor.

CHEM 725 - Advanced Organic Chemistry  
Credits 3

Advanced study of structures and reactions of organic compounds. Reactive intermediates, reaction mechanism, stereochemistry, and synthesis examined.

**Prerequisites** CHEM 242 and 421.

CHEM 726 - Organic Synthesis  
Credits 3

Study of the synthesis of complex organic molecules. Stereochemistry, use of organometallic reagents and chiral auxiliaries stressed, with considerable emphasis on current literature.

**Prerequisites** CHEM 242, 421

CHEM 728 - Organic Synthesis Laboratory  
Credits 2

Some reasonably challenging syntheses undertaken to include reactions requiring rigid exclusion of air and moisture. Products characterized by modern spectroscopic methods.

**Notes** Eight hours laboratory per week.

**Prerequisites** CHEM 242, 421, 447 or consent of instructor.

CHEM 735 - Advanced Physical Chemistry  
Credits 3

Statistical and quantum mechanics and their use in calculating thermodynamic properties.

**Prerequisites** CHEM 421 and 428

CHEM 745 - Instrumental Analysis-Inorganic  
Credits 3

Theory of modern analytical instrumentation as it pertains to inorganic analysis.

**Notes** May include atomic emission and absorption, x-ray, radioactivity and mass spectroscopic methods.

CHEM 746 - Instrumental Analysis-Organic  
Credits 3

Theory of modern analytical instrumentation as it pertains to organic analysis. May include gas chromatography-mass spectrometry, supercritical fluid chromatography, nuclear magnetic resonance, Fourier transform infrared methods and fluorescence techniques.

CHEM 749 - Polymer Chemistry  
Credits 3

Polymer structure; classification of polymerization reactions, step-growth and chain-growth polymerization reactions; condensation, radical, cationic, and anionic polymerization reactions; physical properties and characterization of polymers.

**Prerequisites** Consent of instructor.

CHEM 750 - Quality Assurance and Statistics  
Credits 3

Purpose, theory, and applications of quality assurance/quality control. Experimental design including development of sampling protocols. Statistics relating to the evaluation of data quality covered.

**Notes** Not a theoretical statistics course.

**Prerequisites** STA 161 and CHEM 455.

CHEM 752 - Chromatography  
Credits 3

Theory and applications of chromatography as the basis of analytical separations for inorganic and organic analyses. Separating power, selectivity,

efficiency, and limitations of the various methods discussed.

**Prerequisites** CHEM 241, 422, and 455.

CHEM 755 - Sample Preparation and Analysis  
Credits 3

Collection, preparation, and analysis of gaseous, soil, and water samples using approved standard methods. Techniques used may include gas chromatography, gas chromatography-mass spectroscopy, high performance liquid chromatography- atomic absorption spectroscopy, and inductively coupled plasma atomic emission spectroscopy.

**Notes** One hour lecture and six hours laboratory. Consult instructor(s) prior to enrollment.

**Prerequisites** Graduate standing in chemistry.

CHEM 760 - Environmental  
Radiochemistry/Radiation Safety  
Credits 3

Practical applications of radiochemistry to topics of current and future concern, such as the temporary and permanent storage of radioactive wastes, nuclear utilities, nuclear medicine and isotope geology. Includes advanced radiochemical techniques and radiation safety training.

**Prerequisites** CHEM 421 and 422 or equivalent, or consent of instructor.

CHEM 765 - Inorganic Chemistry  
Credits 3

Physical approach to inorganic compounds, mainly of the transition elements including bonding, stereochemistry, and electronic properties with use of symmetry and elementary group theory.

**Prerequisites** CHEM 422

CHEM 770 - Protein Chemistry  
Credits 3

Protein structure and function. Enzymology (kinetics, regulation). Survey of techniques used in protein purification and analysis.

**Prerequisites** CHEM 475 or equivalent.

CHEM 771 - Metabolism and Energetics  
Credits 3

Biochemical pathways of carbohydrate, lipid, nucleic acid and amino acid metabolism and the mechanism of mitochondrial ATP synthesis.

**Prerequisites** CHEM 475

CHEM 772 - Nucleic Acid Chemistry  
Credits 3

Chemistry and function of nucleic acids (DNA, RNA) and their analogs.

**Prerequisites** CHEM 475 or equivalent.

CHEM 773 - Physical Biochemistry  
Credits 3

Theory and practice of physical chemistry as applied to the structure, properties, and interactions of biochemical macromolecules. Includes thermodynamics, various types of spectroscopy, electrophoresis, ligand binding, and hydrodynamic methods (covering the theoretical aspects of diffusion, sedimentation, and viscosity).

**Prerequisites** CHEM 475

CHEM 775 - Bioanalytical Environmental  
Toxicology  
Credits 3

Principles of toxicology. Study of the interaction of toxicants with biochemical pathways. Emphasis on toxic chemicals of environmental interest.

**Prerequisites** CHEM 475

CHEM 783 - Spectral Interpretation  
Credits 3

Spectroscopic data obtained from the techniques of nuclear magnetic resonance (NMR), mass spectrometry (MS), infrared (IR) and ultraviolet-visible (UV-VIS) spectrophotometry used to establish structural features of organic molecules. Emphasizes strategies, interpretation, modern techniques, and problem solving.

**Prerequisites** Consent of instructor.

CHEM 784 - Spectral Interpretation Laboratory  
Credits 1

Identification and characterization of an organic compound using infrared, ultraviolet, mass, and NMR spectrometers. Proton, carbon-13, and two-dimensional NMR spectra used to fully determine the structure.

**Corequisite** CHEM 783

CHEM 790 - Directed Readings  
Credits 1

Directed readings in the primary literature supportive of the dissertation prospectus.

**Notes** May be repeated, but only three credits are

applied to the academic program.

**Prerequisites** Enrollment in the Chemistry or Radiochemistry doctoral program.

CHEM 791 - Graduate Seminar

Credits 1

Attendance and participation in seminar presentations. Includes student presentations. For master's students, enrollment is required. Two presentations are required.

**Notes** May be repeated for a maximum of five credits.

**Grading** S/F

**Prerequisites** Graduate standing in Chemistry or Radiochemistry.

CHEM 792 - Research Seminar

Credits 3

Public defense of a graduate research project in the Ph.D. Program.

**Prerequisites** Graduate standing in Chemistry or Radiochemistry.

CHEM 793 - Special Topics

Credits 3

Study of a topic of interest from any field of chemistry (for example, analytical chemistry, biochemistry, etc.), at an advanced level. Topic varies each semester. Topic chosen will be published in the class schedule.

**Notes** May be repeated for credit if classes are in different topics.

**Prerequisites** Graduate standing in chemistry.

CHEM 795 - Independent Study

Credits 1 – 3

Individual directed study of a topic not covered in other courses.

**Notes** May be repeated once for credit. May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing in chemistry and consent of instructor.

CHEM 796 - Dissertation Prospectus

Credits 1

Development of a prospectus and its defense before the Ph.D. examination committee.

**Prerequisites** Enrollment in the Chemistry or Radiochemistry doctoral program.

CHEM 797 - Directed Research

Credits 1 – 6

Supervised research in the doctoral program. May be repeated for a maximum of twelve credits.

**Prerequisites** Enrollment in the Chemistry or Radiochemistry doctoral program.

CHEM 798 - Thesis

Credits 3 – 6

**Notes** May be repeated, but only nine credits applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** CHEM 745 or CHEM 746 and consent of instructor.

CHEM 799 - Dissertation

Credits 3 – 6

Research, analysis, and writing toward completion of dissertation and subsequent defense.

**Notes** May be repeated but a minimum of eighteen credits and a maximum of twenty four credits will be applied toward fulfillment of degree requirements.

**Grading** S/F grading only.

**Prerequisites** Graduate standing in Chemistry or Radiochemistry and consent of instructor.

RDCH 701 - Applied Nuclear Physics

Credits 3

Introduces nuclear properties in radiation and radiochemistry. Concepts of the nuclei, radioactive decay, and nuclear reactions examined. Use of quantum mechanics in development of nuclear models and equations. Physics involved in interaction of radiation with matter.

**Prerequisites** General physics, graduate standing in Radiochemistry program.

RDCH 702 - Radiochemistry

Credits 3

Introduces chemical properties in radiation and radiochemistry. Use of stability constants and relationship between speciation, kinetics and thermodynamics. Influence of radiolysis on chemistry of radioisotopes. Radioisotope production and use. Radiochemical separations.

**Prerequisites** Inorganic chemistry, physical chemistry, graduate standing in Radiochemistry program.

### RDCH 710 - Actinide Chemistry

Credits 3

Basis for unique chemistry of actinide elements described and related to oxidation-reduction, complexation, orbital interaction, and spectroscopy. Using nuclear properties in understanding actinide chemistry covered. Presentations on exploiting chemical behavior of actinides in separation, nuclear fuel cycle, environmental behavior, and materials.

**Prerequisites** RDCH 702, graduate standing in Radiochemistry program.

### RDCH 750 - Radiochemistry Laboratory Research

Credits 3

Experimental laboratory research conducted by the student under supervision. The student supplies research topic and provides suitable literature and background information. Research plan developed in conjunction with instructor. The student obtains experience in performing radiochemical laboratory research.

**Prerequisites** Undergraduate chemistry laboratory experience, graduate standing in the Radiochemistry program.

## Geoscience

The Department of Geoscience is an active and enthusiastic department consisting of twenty two full-time faculty, approximately sixty graduate students and one hundred undergraduate majors. The department offers a program of courses, seminars and research opportunities leading to Master of Science and Doctor of Philosophy degrees in Geoscience. The interests of the faculty and students cover a wide range of topics. Active research by faculty and students is ongoing throughout the western United States, as well as in, Canada, Chile, China, Costa Rica, Indonesia, France, Guatemala, Mexico, New Zealand, Panama, Poland, Russia, South Africa, Spain, and Switzerland. The Geoscience curriculum is designed to develop student skills applicable to employment opportunities in a wide array of disciplines in the Geoscience sector.

The department encourages interdisciplinary research. Opportunities for geological and interdisciplinary research may be pursued with organizations near, or on, campus that cooperate with the department including: the Division of Hydrologic Sciences of the Desert Research Institute (DRI), a division of the University and Community College System of Nevada; the Environmental Monitoring and Support Laboratory of the Environmental Protection Agency (EPA); the Department of Energy; and other university departments and schools such as life sciences, chemistry, physics, and engineering.

Students are encouraged to read the general graduate college rules and regulations elsewhere in this catalog and to read the Department of Geoscience Graduate Student Guidelines, which are available on the department's web site at:

[http://geoscience.unlv.edu/graduate\\_program.html](http://geoscience.unlv.edu/graduate_program.html).

An understanding of these documents is essential for satisfactory progress toward the degree.

*Terry Spell, Ph.D., Chair*

*Matthew Lachniet, Ph.D., Graduate Program  
Coordinator*

*Ganqing Jiang, Ph.D., Graduate Admissions  
Coordinator*

## Geoscience Faculty

### Chair

#### **Spell, Terry** - *Full Graduate Faculty*

Associate Professor; B.S., West Georgia College; M.S., New Mexico Institute of Mining and Technology; Ph.D., State University of New York, Albany. *Rebel since 1996.*

### Graduate Coordinator

#### **Lachniet, Matthew** - *Full Graduate Faculty*

Professor; B.A., Antioch College; M.S., Michigan State University, Ph.D., Syracuse University. *Rebel since 2003.*

### Graduate Faculty

#### **Bonde, Josh** - *Full Graduate Faculty*

Assistant Professor in Residence; B.S., University of Nevada Reno; M.S., Montana State University; Ph.D., University of Nevada Las Vegas. *Rebel since 2014.*

#### **Buck, Brenda** - *Full Graduate Faculty*

Professor; B.S., University of Notre Dame; M.S., Ph.D., New Mexico State University. *Rebel since 1998.*

#### **Burnley, Pamela** - *Full Graduate Faculty*

Associate Research Professor; B.S., Brown University; M.S., Ph.D., University of California Davis. *Rebel since 2008.*

#### **Cline, Jean S.** - *Full Graduate Faculty*

Professor; B.S., Wisconsin State University; M.S., University of Arizona; Ph.D., Virginia Polytechnic Institute and State University. *Rebel since 1990.*

#### **Giovanni, Melissa** - *Associate Graduate Faculty*

Visiting Assistant Professor; B.S., University of Arizona; Ph.D., University of California Los Angeles. *Rebel since 2013.*

#### **Hanson, Andrew** - *Full Graduate Faculty*

Associate Professor; B.S., Montana State University; M.S., San Diego State University; Ph.D., Stanford University. *Rebel since 2000.*

#### **Hausrath, Elisabeth** - *Full Graduate Faculty*

Associate Professor; B.S., Brown University; Ph.D., Pennsylvania State University. *Rebel since 2009.*

#### **Huang, Shichun** - *Full Graduate Faculty*

Assistant Professor; B.S., University of Science and Technology of China; Ph.D., Massachusetts Institute of Technology. *Rebel since 2014.*

#### **Jiang, Ganqing Q.** - *Full Graduate Faculty*

Professor; B.A., Xiangtan Mining College; M.Sc., China University of Geosciences; Ph.D., Columbia University. *Rebel since 2004.*

#### **Judkins, Gabriel** - *Full Graduate Faculty*

Assistant Professor in Residence; B.S., State University of New York Geneseo; M.S., Ph.D., Arizona State University. *Rebel since 2009.*

#### **Kreamer, David K.** - *Full Graduate Faculty*

Professor; B.S., M.S., Ph.D., University of Arizona. *Rebel since 1990.*

#### **Metcalf, Rodney V.** - *Full Graduate Faculty*

Associate Professor; B.S., M.S., University of Kentucky; Ph.D., University of New Mexico. *Rebel since 1991.*

#### **Nicholl, Michael J.** - *Full Graduate Faculty*

Associate Professor; B.S., Eastern Michigan University; M.S., Ph.D., University of Nevada, Reno. *Rebel since 2004.*

#### **Ren, Minghua** - *Associate Graduate Faculty*

Assistant Research Professor; B.S., Nanjing University; M.S., Ph.D. Baylor University. *Rebel since 2011.*

#### **Rowland, Stephen M.** - *Full Graduate Faculty*

Professor; A.B., University of California, Berkeley; Ph.D., University of California, Santa Cruz. *Rebel since 1978.*

#### **Taylor, Wanda J.** - *Full Graduate Faculty*

Professor; B.S., University of Minnesota; M.S., Syracuse University; Ph.D., University of Utah. *Rebel since 1991.*

#### **Tschauner, Oliver** - *Associate Graduate Faculty*

Associate Research Professor; B.S., M.S., Ph.D., University of Cologne. *Rebel since 2008.*

**Udry, Arya** - Full Graduate Faculty

Assistant Professor; B.S., M.S., Universite de Lausanne (Switzerland); Ph.D., University of Tennessee. *Rebel since 2014.*

**Wells, Michael L.** - Full Graduate Faculty

Professor; B.S., University of California, Santa Cruz; M.S., Ph.D., Cornell University. *Rebel since 1993.*

**Yu, Zhongbo** - Full Graduate Faculty

Professor; B.S., Hohai University; M.S., University of Southern Mississippi; Ph.D., Ohio State University. *Rebel since 1999.*

**Professors Emeriti**

**Bachhuber, Frederick W.**

Emeritus Professor; B.S., M.S., University of Wisconsin; Ph.D., University of New Mexico. *UNLV Emeritus 1974-2002.*

**Smith, Eugene I.** - Full Graduate Faculty

Emeritus Professor; B.S., Wayne State University; M.S., Ph.D., University of New Mexico. *UNLV Emeritus 1980-2013.*

## Doctor of Philosophy - Geoscience

### Plan Description

The Doctor of Philosophy – Geoscience degree is designed to prepare students for demanding research-oriented careers in academia, government service, private consulting, and industry. Working closely with their advisors, students focus on original research in an emphasis area. Research expectations are high; students are expected to develop original lines of research that will lead to three or more original manuscripts that are suitable for submission to a refereed scientific journal. Students are expected to have strong content knowledge in their area of emphasis and three additional sub-disciplines of the geologic sciences. Fundamental knowledge levels are tested first in a diagnostic interview that is used to guide coursework taken by the student, and then later in a comprehensive exam.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

#### *Geology Track*

The emphasis in Geology includes the fields of economic geology, environmental geology, geochemistry, geochronology, geomorphology, igneous petrology, paleontology, metamorphic petrology, Quaternary geology, pedology, sedimentology, stratigraphy, structural geology, surficial processes, tectonics, and volcanology. Applicants must satisfy the following requirements:

1. For the Post-Bachelor's Track: A bachelor's degree in geology or equivalent.
2. For the Post-Master's Track: A Master of Science degree in geology or equivalent.

3. It is recommended that the student have completed the following courses for unconditional admission to the program. An introductory geology class and six of the following eight classes (or their equivalents): mineralogy, geochemistry, geomorphology, structural geology, igneous and metamorphic petrology, paleontology, field geology, and sedimentology/stratigraphy.

#### *Geophysics Track*

Applicants must satisfy the following requirements:

1. For the Post-Bachelor's Track: A bachelor's degree in geology, engineering, physics or mathematics.
2. For the Post-Master's Track: A Master of Science degree.
3. To be admitted to the program with a Geophysics emphasis, it is recommended that the student have completed the following courses for unconditional admission to the program.
  1. Mathematics: Three semesters of calculus
  2. Physics: Two semesters of introductory (calculus level) physics
  3. Geology: Physical geology, historical geology, mineralogy, structural geology, sedimentology/stratigraphy, and igneous and metamorphic petrology.

#### *Soil Science Track*

Applicants must satisfy the following requirements:

1. For the Post-Bachelor's Track: B.S. degree in a Natural Science (or similar field and course work) or B.A. degree in Natural Science (or similar field and course work) with approval of the graduate coordinator.
2. For the Post-Master's Track: A Master of Science degree.
3. To be admitted to the program with a Soil Science emphasis, it is recommended that the student have completed two of the following courses for unconditional admission to the program: Mineralogy,

Geomorphology,  
Sedimentology/Stratigraphy, or  
Geochemistry.

#### *Hydrogeology Track*

Applicants must satisfy the following requirements:

1. For the Post-Bachelor's Track: A B.S. degree in geology or a related discipline (e.g., civil engineering).
2. For the Post-Master's Track: A master's degree in geology or a related discipline (e.g., civil engineering).
3. To be admitted to the program with a hydrogeology emphasis, it is required that the student have completed four of the following courses (or their equivalents) for unconditional admission to the program:  
 GEOL 474 - Hydrogeology  
 GEOL 330 - Geochemistry  
 GEOL 333 - Geomorphology  
 GEOL 341 - Structural Geology  
 GEOL 348 - Field Geology  
 GEOL 462 - Stratigraphy and Sedimentology

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

#### **Plan Requirements**

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Post-Bachelor's - Geology Track**

Total Credits Required: 60  
Course Requirements

#### **Required Course – Credits: 3**

GEOL 701 - Research Methods in Geoscience

#### **Elective Courses – Credits: 45**

Complete 45 credits of 600- or 700-level GEOL courses, or other advisor-approved courses.

#### **Dissertation – Credits: 12**

## GEOL 799 - Dissertation

### Degree Requirements

1. Students must complete a minimum of 60 credit hours with a minimum GPA of 3.00.
2. A minimum of 24 of the 60 credits required must be at the 700-level.
3. Although more course work and dissertation credits may be taken, only 12 credits of Dissertation, and 48 course credits will be counted toward the degree program.
4. Doctoral students are encouraged to take courses from outside of geoscience; however, a minimum of 15 credits must be geoscience (GEOL) courses.
5. A maximum of three credits of Independent Study are permitted, except in special circumstances in which case permission from the doctoral advising committee, the department Graduate Coordinator and the department chair is required.
6. Satisfactory progress toward meeting the degree requirements is required of all candidates. Satisfactory progress is defined as, at a minimum:
  - a. Maintenance of at least a 3.00 grade point average in all graduate-level courses. Two grades of B- are permitted in the degree program as long as the GPA remains at or above 3.00. One grade of C+ or lower results in academic probation even if the overall GPA is above 3.0. Two grades of C+ or lower will result in automatic suspension from the program.
  - b. Selecting a dissertation advisor and committee. The advisor must be selected before the end of the first semester and the committee before the end of the second semester.
  - c. Scheduling of an interview with the advisor either during or before the first semester. If an advisor is not selected, a temporary advisor will be assigned by the graduate coordinator. The purpose of the interview is to develop a plan of course work for the first year.
  - d. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
  - e. Scheduling of a diagnostic interview with the Advisory Committee before the end of the 2nd semester. The purpose of the interview is to develop a list of recommended courses and design the student's degree program, which must be submitted prior to completing 16 credits of course work toward the degree.
  - f. Preparation of a dissertation proposal and satisfactory performance on a Proposal Defense Examination. This examination must be completed prior to the end of the third semester. The Proposal Defense Examination focuses on the dissertation proposal and the student's ability to perform the research. It includes a formal oral presentation of the student's dissertation proposal, research to date, and questions by the dissertation advisory committee on the dissertation topic. The Proposal Defense Examination is to be taken prior to the Comprehensive Examination.
  - g. Satisfactory performance on the Comprehensive Examination. Ph.D. students must have a basic knowledge of Physical Geology in addition to a comprehensive knowledge of three fields of



geosciences (see Department of Geoscience Graduate Student Guidelines for recommended fields for each Ph.D. Emphasis). The format and content of the exam will be determined by the student's doctoral advisory committee with approval of the department graduate coordinator. The Comprehensive Examination will be taken either the semester after all course work is completed or before the end of the fifth semester, whichever comes first. The examination will be oral. In exceptional circumstances, as determined by the student's dissertation committee and the graduate coordinator, the examination will consist of both oral and written components. Students who fail to pass the Comprehensive Examination or Proposal Defense on the first attempt must successfully complete a second examination (as specified by the doctoral advisory committee) within the next six months to remain in the program. Students who entered the program with a baccalaureate degree and who fail the second examination may be allowed to continue as a Master of Science student with the consent of the doctoral advising committee. Students who entered the program with a master's degree who fail the examination a second time will be separated from the program. A student who has successfully passed both the Proposal Defense and Comprehensive Examinations will be admitted to candidacy for the Ph.D. degree.

- h. Satisfactory performance on a final examination will consist of the presentation and defense of the dissertation research. The defense

will consist of an oral presentation open to the public, a short period of questions from the public, a closed session of questions from the doctoral advising committee, and a closed deliberation and vote by just the advisory committee members. Any graduate faculty member may attend the closed session of questions of the defense.

7. Using Degree Audit as a guide, a degree program must be approved by the advisory committee prior to the beginning of the third semester of enrollment.
8. It is recommended that the student be a teaching assistant or instructor for at least one semester.
9. Students may request a maximum of 15 graduate credits taken at UNLV prior to admission be included in the graduate degree program, providing those credits were not used to fulfill undergraduate requirements and a grade of B (3.00) or higher was achieved.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 2 Requirements: Post-Bachelor's - Geophysics Track**

Total Credits Required: 60  
Course Requirements

#### **Required Course – Credits: 3**

GEOL 701 - Research Methods in Geoscience

#### **Core Course – Credits: 3**

Complete one of the following courses:

CEE 636 - Engineering Geophysics  
GEOL 645 - Geophysical Methods

#### **Additional Core Course – Credits: 3**

Complete one of the following courses:

ECG 780 - Digital Signal Processing  
GEOL 793 - Independent Study and Research

### **Geophysics Courses – Credits: 9**

Complete 9 credits in three or more of the following courses, or other advisor-approved courses.

BIOL 618 - Microbial Ecology  
CEE 634 - Rock Mechanics  
CEE 636 - Engineering Geophysics  
CEE 676 - Earthquake Engineering  
CEE 737 - Soil Dynamics and Earthquake Engineering  
CEE 775 - Seismic Response of Structures  
GEOL 630 - Geographic Information Systems (GIS): Theory and Applications  
GEOL 643 - Plate Tectonics  
GEOL 644 - Tectonics of Orogenic Belts  
GEOL 646 - Geologic Applications in Remote Sensing  
GEOL 678 - Hydrogeochemistry  
GEOL 688 - Microtechniques in Geoscience  
GEOL 716 - Geostatistics  
GEOL 744 - Tectonics and Structures  
GEOL 745 - Advanced Structural Geology  
GEOL 746 - Strain and Microstructural Analysis  
GEOL 747 - Geological Evolution of Western North America  
GEOL 770 - Sedimentary Basins  
GEOL 772 - Reflection Seismic Data Interpretation  
GEOL 773 - Seminar in Geophysics

### **Elective Courses – Credits: 30**

Complete 30 credits from the following list of courses, or other advisor-approved courses that are appropriate for the course of study.

BIOL 618 - Microbial Ecology  
CEE 634 - Rock Mechanics  
CEE 636 - Engineering Geophysics  
CEE 676 - Earthquake Engineering  
CEE 737 - Soil Dynamics and Earthquake Engineering  
CEE 775 - Seismic Response of Structures  
GEOL 630 - Geographic Information Systems (GIS): Theory and Applications  
GEOL 643 - Plate Tectonics  
GEOL 644 - Tectonics of Orogenic Belts  
GEOL 646 - Geologic Applications in Remote Sensing  
GEOL 678 - Hydrogeochemistry

GEOL 688 - Microtechniques in Geoscience  
GEOL 716 - Geostatistics  
GEOL 744 - Tectonics and Structures  
GEOL 745 - Advanced Structural Geology  
GEOL 746 - Strain and Microstructural Analysis  
GEOL 747 - Geological Evolution of Western North America  
GEOL 770 - Sedimentary Basins  
GEOL 772 - Reflection Seismic Data Interpretation  
GEOL 773 - Seminar in Geophysics

### **Dissertation – Credits: 12**

GEOL 799 - Dissertation

### **Degree Requirements**

1. Students must complete a minimum of 60 credit hours with a minimum GPA of 3.00.
2. A minimum of 24 of the 60 credits required must be at the 700-level.
3. Although more course work and dissertation credits may be taken, only 12 credits of Dissertation, and 48 course credits will be counted toward the degree program.
4. Doctoral students are encouraged to take courses from outside of geoscience; however, a minimum of 15 credits must be geoscience (GEOL) courses.
5. A maximum of three credits of Independent Study are permitted, except in special circumstances in which case permission from the doctoral advising committee, the department Graduate Coordinator and the department chair is required.
6. Satisfactory progress toward meeting the degree requirements is required of all candidates. Satisfactory progress is defined as, at a minimum:
  - a. Maintenance of at least a 3.00 grade point average in all graduate-level courses. Two grades of B- are permitted in the degree program as long as the GPA remains at or above 3.00. One grade of C+ or lower results in academic probation even if the overall GPA is above 3.0. Two grades of C+ or lower will result in automatic suspension from the program.

- b. Selecting a dissertation advisor and committee. The advisor must be selected before the end of the first semester and the committee before the end of the second semester.
- c. Scheduling of an interview with the advisor either during or before the first semester. If an advisor is not selected, a temporary advisor will be assigned by the graduate coordinator. The purpose of the interview is to develop a plan of course work for the first year.
- d. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
- e. Scheduling of a diagnostic interview with the Advisory Committee before the end of the 2nd semester. The purpose of the interview is to develop a list of recommended courses and design the student's degree program, which must be submitted prior to completing 16 credits of course work toward the degree.
- f. Preparation of a dissertation proposal and satisfactory performance on a Proposal Defense Examination. This examination must be completed prior to the end of the third semester. The Proposal Defense Examination focuses on the dissertation proposal and the student's ability to perform the research. It includes a formal oral presentation of the student's dissertation proposal, research to date, and questions by the dissertation advisory committee on the dissertation topic. The Proposal Defense Examination is to be taken prior to the Comprehensive Examination.
- g. Satisfactory performance on the Comprehensive Examination. Ph.D. students must have a basic knowledge of Physical Geology in addition to a comprehensive knowledge of three fields of geosciences (see Department of Geoscience Graduate Student Guidelines for recommended fields for each Ph.D. Emphasis). The format and content of the exam will be determined by the student's doctoral advisory committee with approval of the department graduate coordinator. The Comprehensive Examination will be taken either the semester after all course work is completed or before the end of the fifth semester, whichever comes first. The examination will be oral. In exceptional circumstances, as determined by the student's dissertation committee and the graduate coordinator, the examination will consist of both oral and written components. Students who fail to pass the Comprehensive Examination or Proposal Defense on the first attempt must successfully complete a second examination (as specified by the doctoral advisory committee) within the next six months to remain in the program. Students who entered the program with a baccalaureate degree and who fail the second examination may be allowed to continue as a Master of Science student with the consent of the doctoral advising committee. Students who entered the program with a master's degree who fail the examination a second

time will be separated from the program. A student who has successfully passed both the Proposal Defense and Comprehensive Examinations will be admitted to candidacy for the Ph.D. degree.

- h. Satisfactory performance on a final examination will consist of the presentation and defense of the dissertation research. The defense will consist of an oral presentation open to the public, a short period of questions from the public, a closed session of questions from the doctoral advising committee, and a closed deliberation and vote by just the advisory committee members. Any graduate faculty member may attend the closed session of questions of the defense.
7. Using Degree Audit as a guide, a degree program must be approved by the advisory committee prior to the beginning of the third semester of enrollment.
8. It is recommended that the student be a teaching assistant or instructor for at least one semester.
9. Students may request a maximum of 15 graduate credits taken at UNLV prior to admission be included in the graduate degree program, providing those credits were not used to fulfill undergraduate requirements and a grade of B (3.00) or higher was achieved.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 3 Requirements: Post-Bachelor's - Soil Science Track**

Total Credits Required: 60  
Course Requirements

#### **Required Course – Credits: 3**

GEOL 701 - Research Methods in Geoscience

#### **Core Courses – Credits: 6**

GEOL 610 - Soil Classification and Resource Management  
GEOL 786 - Soils Applications: Paleoclimate, Neotectonics, Archeology

#### **Elective Courses – Credits: 39**

Complete 39 credits from the following list of courses, or other advisor-approved courses that are appropriate for the course of study.

BIOL 618 - Microbial Ecology  
BIOL 745 - Arid Zone Soils  
GEOL 630 - Geographic Information Systems (GIS): Theory and Applications  
GEOL 646 - Geologic Applications in Remote Sensing  
GEOL 688 - Microtechniques in Geoscience  
GEOL 712 - Watershed Hydrology  
GEOL 716 - Geostatistics  
GEOL 719 - Vadose Zone Hydrology  
GEOL 735 - Seminar in Environmental Geology  
GEOL 740 - Arid Zone Soils  
GEOL 744 - Tectonics and Structures  
GEOL 760 - Advanced Spatial Modeling with GIS  
GEOL 770 - Sedimentary Basins  
GEOL 776 - Paleosols Records of Past Landscapes

#### **Dissertation – Credits: 12**

GEOL 799 - Dissertation

#### Degree Requirements

1. Students must complete a minimum of 60 credit hours with a minimum GPA of 3.00.
2. A minimum of 24 of the 60 credits required must be at the 700-level.
3. Although more course work and dissertation credits may be taken, only 12 credits of Dissertation, and 48 course credits will be counted toward the degree program.
4. Doctoral students are encouraged to take courses from outside of geoscience; however, a minimum of 15 credits must be geoscience (GEOL) courses.
5. A maximum of three credits of Independent Study are permitted, except in special circumstances in which case permission

from the doctoral advising committee, the department Graduate Coordinator and the department chair is required.

6. Satisfactory progress toward meeting the degree requirements is required of all candidates. Satisfactory progress is defined as, at a minimum:
  - a. Maintenance of at least a 3.00 grade point average in all graduate-level courses. Two grades of B- are permitted in the degree program as long as the GPA remains at or above 3.00. One grade of C+ or lower results in academic probation even if the overall GPA is above 3.0. Two grades of C+ or lower will result in automatic suspension from the program.
  - b. Selecting a dissertation advisor and committee. The advisor must be selected before the end of the first semester and the committee before the end of the second semester.
  - c. Scheduling of an interview with the advisor either during or before the first semester. If an advisor is not selected, a temporary advisor will be assigned by the graduate coordinator. The purpose of the interview is to develop a plan of course work for the first year.
  - d. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
  - e. Scheduling of a diagnostic interview with the Advisory Committee before the end of the 2nd semester. The purpose of the interview is to develop a list of recommended courses and design the student's degree program, which must be submitted prior to completing 16 credits of course work toward the degree.
  - f. Preparation of a dissertation proposal and satisfactory performance on a Proposal Defense Examination. This examination must be completed prior to the end of the third semester. The Proposal Defense Examination focuses on the dissertation proposal and the student's ability to perform the research. It includes a formal oral presentation of the student's dissertation proposal, research to date, and questions by the dissertation advisory committee on the dissertation topic. The Proposal Defense Examination is to be taken prior to the Comprehensive Examination.
  - g. Satisfactory performance on the Comprehensive Examination. Ph.D. students must have a basic knowledge of Physical Geology in addition to a comprehensive knowledge of three fields of geosciences (see Department of Geoscience Graduate Student Guidelines for recommended fields for each Ph.D. Emphasis). The format and content of the exam will be determined by the student's doctoral advisory committee with approval of the department graduate coordinator. The Comprehensive Examination will be taken either the semester after all course work is completed or before the end of the fifth semester, whichever comes first. The examination will be oral. In exceptional circumstances, as determined by the student's dissertation committee and the graduate coordinator, the examination will consist of both

oral and written components. Students who fail to pass the Comprehensive Examination or Proposal Defense on the first attempt must successfully complete a second examination (as specified by the doctoral advisory committee) within the next six months to remain in the program. Students who entered the program with a baccalaureate degree and who fail the second examination may be allowed to continue as a Master of Science student with the consent of the doctoral advising committee. Students who entered the program with a master's degree who fail the examination a second time will be separated from the program. A student who has successfully passed both the Proposal Defense and Comprehensive Examinations will be admitted to candidacy for the Ph.D. degree.

- h. Satisfactory performance on a final examination will consist of the presentation and defense of the dissertation research. The defense will consist of an oral presentation open to the public, a short period of questions from the public, a closed session of questions from the doctoral advising committee, and a closed deliberation and vote by just the advisory committee members. Any graduate faculty member may attend the closed session of questions of the defense.
7. Using Degree Audit as a guide, a degree program must be approved by the advisory committee prior to the beginning of the third semester of enrollment.
8. It is recommended that the student be a teaching assistant or instructor for at least one semester.
9. Students may request a maximum of 15 graduate credits taken at UNLV prior to admission be included in the graduate

degree program, providing those credits were not used to fulfill undergraduate requirements and a grade of B (3.00) or higher was achieved.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 4 Requirements: Post-Bachelor's - Hydrogeology Track**

Total Credits Required: 60

Course Requirements

#### **Required Course – Credits: 3**

GEOL 701 - Research Methods in Geoscience

#### **Elective Courses – Credits: 45**

Complete 45 credits from the following list of courses, or other advisor-approved courses that are appropriate for the course of study.

BIOL 618 - Microbial Ecology

BIOL 745 - Arid Zone Soils

GEOL 630 - Geographic Information Systems (GIS): Theory and Applications

GEOL 646 - Geologic Applications in Remote Sensing

GEOL 674 - Hydrogeology

GEOL 678 - Hydrogeochemistry

GEOL 688 - Microtechniques in Geoscience

GEOL 709 - Field Methods in Hydrogeology

GEOL 711 - Principles of Hydrology and Hydraulics

GEOL 712 - Watershed Hydrology

GEOL 715 - Advanced Hydrogeology

GEOL 716 - Geostatistics

GEOL 719 - Vadose Zone Hydrology

GEOL 735 - Seminar in Environmental Geology

GEOL 740 - Arid Zone Soils

GEOL 744 - Tectonics and Structures

GEOL 760 - Advanced Spatial Modeling with GIS

GEOL 765 - Seminar in Stratigraphy

GEOL 770 - Sedimentary Basins

GEOL 776 - Paleosols Records of Past Landscapes

GEOL 785 - Seminar in Sedimentology

GEOL 792 - Seminar in Hydroscience

#### **Dissertation – Credits: 12**

## GEOL 799 - Dissertation

### Degree Requirements

1. Students must complete a minimum of 60 credit hours with a minimum GPA of 3.00.
2. A minimum of 24 of the 60 credits required must be at the 700-level.
3. Although more course work and dissertation credits may be taken, only 12 credits of Dissertation, and 48 course credits will be counted toward the degree program.
4. Doctoral students are encouraged to take courses from outside of geoscience; however, a minimum of 15 credits must be geoscience (GEOL) courses.
5. A maximum of three credits of Independent Study are permitted, except in special circumstances in which case permission from the doctoral advising committee, the department Graduate Coordinator and the department chair is required.
6. Satisfactory progress toward meeting the degree requirements is required of all candidates. Satisfactory progress is defined as, at a minimum:
  - a. Maintenance of at least a 3.00 grade point average in all graduate-level courses. Two grades of B- are permitted in the degree program as long as the GPA remains at or above 3.00. One grade of C+ or lower results in academic probation even if the overall GPA is above 3.0. Two grades of C+ or lower will result in automatic suspension from the program.
  - b. Selecting a dissertation advisor and committee. The advisor must be selected before the end of the first semester and the committee before the end of the second semester.
  - c. Scheduling of an interview with the advisor either during or before the first semester. If an advisor is not selected, a temporary advisor will be assigned by the graduate coordinator. The purpose of the interview is to develop a plan of course work for the first year.
  - d. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
  - e. Scheduling of a diagnostic interview with the Advisory Committee before the end of the 2nd semester. The purpose of the interview is to develop a list of recommended courses and design the student's degree program, which must be submitted prior to completing 16 credits of course work toward the degree.
  - f. Preparation of a dissertation proposal and satisfactory performance on a Proposal Defense Examination. This examination must be completed prior to the end of the third semester. The Proposal Defense Examination focuses on the dissertation proposal and the student's ability to perform the research. It includes a formal oral presentation of the student's dissertation proposal, research to date, and questions by the dissertation advisory committee on the dissertation topic. The Proposal Defense Examination is to be taken prior to the Comprehensive Examination.
  - g. Satisfactory performance on the Comprehensive Examination. Ph.D. students must have a basic knowledge of Physical Geology in addition to a comprehensive knowledge of three fields of

geosciences (see Department of Geoscience Graduate Student Guidelines for recommended fields for each Ph.D. Emphasis). The format and content of the exam will be determined by the student's doctoral advisory committee with approval of the department graduate coordinator. The Comprehensive Examination will be taken either the semester after all course work is completed or before the end of the fifth semester, whichever comes first. The examination will be oral. In exceptional circumstances, as determined by the student's dissertation committee and the graduate coordinator, the examination will consist of both oral and written components. Students who fail to pass the Comprehensive Examination or Proposal Defense on the first attempt must successfully complete a second examination (as specified by the doctoral advisory committee) within the next six months to remain in the program. Students who entered the program with a baccalaureate degree and who fail the second examination may be allowed to continue as a Master of Science student with the consent of the doctoral advising committee. Students who entered the program with a master's degree who fail the examination a second time will be separated from the program. A student who has successfully passed both the Proposal Defense and Comprehensive Examinations will be admitted to candidacy for the Ph.D. degree.

- h. Satisfactory performance on a final examination will consist of the presentation and defense of the dissertation research. The defense

will consist of an oral presentation open to the public, a short period of questions from the public, a closed session of questions from the doctoral advising committee, and a closed deliberation and vote by just the advisory committee members. Any graduate faculty member may attend the closed session of questions of the defense.

7. Using Degree Audit as a guide, a degree program must be approved by the advisory committee prior to the beginning of the third semester of enrollment.
8. It is recommended that the student be a teaching assistant or instructor for at least one semester.
9. Students may request a maximum of 15 graduate credits taken at UNLV prior to admission be included in the graduate degree program, providing those credits were not used to fulfill undergraduate requirements and a grade of B (3.00) or higher was achieved.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 5 Requirements: Post-Master's - Geology Track**

Total Credits Required: 36

#### Course Requirements

#### **Required Course – Credits: 3**

GEOL 701 - Research Methods in Geoscience

#### **Elective Courses – Credits: 21**

Complete 21 credits of 600- or 700-level GEOL courses, or other advisor-approved courses.

#### **Dissertation – Credits: 12**

GEOL 799 - Dissertation

#### Degree Requirements



1. Students must complete a minimum of 36 credit hours with a minimum GPA of 3.00.
2. A minimum of 12 of the 36 credits required must be at the 700-level.
3. Although more course work and dissertation credits may be taken, only 12 credits of Dissertation, and 24 course credits will be counted toward the degree program.
4. Doctoral students are encouraged to take courses from outside of geoscience; however, a minimum of 15 credits must be geoscience (GEOL) courses.
5. A maximum of three credits of Independent Study are permitted, except in special circumstances in which case permission from the doctoral advising committee, the department Graduate Coordinator and the department chair is required.
6. Satisfactory progress toward meeting the degree requirements is required of all candidates. Satisfactory progress is defined as, at a minimum:
  - a. Maintenance of at least a 3.00 grade point average in all graduate-level courses. Two grades of B- are permitted in the degree program as long as the GPA remains at or above 3.00. One grade of C+ or lower results in academic probation even if the overall GPA is above 3.0. Two grades of C+ or lower will result in automatic suspension from the program.
  - b. Selecting a dissertation advisor and committee. The advisor must be selected before the end of the first semester and the committee before the end of the second semester.
  - c. Scheduling of an interview with the advisor either during or before the first semester. If an advisor is not selected, a temporary advisor will be assigned by the graduate coordinator. The purpose of the interview is to develop a plan of course work for the first year.
  - d. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
  - e. Scheduling of a diagnostic interview with the Advisory Committee before the end of the 2nd semester. The purpose of the interview is to develop a list of recommended courses and design the student's degree program, which must be submitted prior to completing 16 credits of course work toward the degree.
  - f. Preparation of a dissertation proposal and satisfactory performance on a Proposal Defense Examination. This examination must be completed prior to the end of the third semester. The Proposal Defense Examination focuses on the dissertation proposal and the student's ability to perform the research. It includes a formal oral presentation of the student's dissertation proposal, research to date, and questions by the dissertation advisory committee on the dissertation topic. The Proposal Defense Examination is to be taken prior to the Comprehensive Examination.
  - g. Satisfactory performance on the Comprehensive Examination. Ph.D. students must have a basic knowledge of Physical Geology in addition to a comprehensive knowledge of three fields of geosciences (see Department of Geoscience Graduate Student Guidelines for recommended fields for each Ph.D. Emphasis). The format and content of the exam will

be determined by the student's doctoral advisory committee with approval of the department graduate coordinator. The Comprehensive Examination will be taken either the semester after all course work is completed or before the end of the fifth semester, whichever comes first. The examination will be oral. In exceptional circumstances, as determined by the student's dissertation committee and the graduate coordinator, the examination will consist of both oral and written components. Students who fail to pass the Comprehensive Examination or Proposal Defense on the first attempt must successfully complete a second examination (as specified by the doctoral advisory committee) within the next six months to remain in the program. Students who entered the program with a baccalaureate degree and who fail the second examination may be allowed to continue as a Master of Science student with the consent of the doctoral advising committee. Students who entered the program with a master's degree who fail the examination a second time will be separated from the program. A student who has successfully passed both the Proposal Defense and Comprehensive Examinations will be admitted to candidacy for the Ph.D. degree.

- h. Satisfactory performance on a final examination will consist of the presentation and defense of the dissertation research. The defense will consist of an oral presentation open to the public, a short period of questions from the public, a closed session of questions from the doctoral advising committee, and a

closed deliberation and vote by just the advisory committee members. Any graduate faculty member may attend the closed session of questions of the defense.

7. Using Degree Audit as a guide, a degree program must be approved by the advisory committee prior to the beginning of the third semester of enrollment.
8. It is recommended that the student be a teaching assistant or instructor for at least one semester.
9. Students may request a maximum of 15 graduate credits taken at UNLV prior to admission be included in the graduate degree program, providing those credits were not used to fulfill undergraduate requirements and a grade of B (3.00) or higher was achieved.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 6 Requirements: Post-Master's - Geophysics Track**

Total Credits Required: 36  
Course Requirements

#### **Required Course – Credits: 3**

GEOL 701 - Research Methods in Geoscience

#### **Core Course – Credits: 3**

Complete one of the following courses:

CEE 636 - Engineering Geophysics  
GEOL 645 - Geophysical Methods

#### **Additional Core Course – Credits: 3**

Complete one of the following courses:

ECG 780 - Digital Signal Processing  
GEOL 793 - Independent Study and Research

#### **Geophysics Courses – Credits: 9**

Complete 9 credits in three or more of the following courses, or other advisor-approved courses.

BIOL 618 - Microbial Ecology  
 CEE 634 - Rock Mechanics  
 CEE 636 - Engineering Geophysics  
 CEE 676 - Earthquake Engineering  
 CEE 737 - Soil Dynamics and Earthquake Engineering  
 CEE 775 - Seismic Response of Structures  
 GEOL 630 - Geographic Information Systems (GIS): Theory and Applications  
 GEOL 643 - Plate Tectonics  
 GEOL 644 - Tectonics of Orogenic Belts  
 GEOL 646 - Geologic Applications in Remote Sensing  
 GEOL 678 - Hydrogeochemistry  
 GEOL 688 - Microtechniques in Geoscience  
 GEOL 716 - Geostatistics  
 GEOL 744 - Tectonics and Structures  
 GEOL 745 - Advanced Structural Geology  
 GEOL 746 - Strain and Microstructural Analysis  
 GEOL 747 - Geological Evolution of Western North America  
 GEOL 770 - Sedimentary Basins  
 GEOL 772 - Reflection Seismic Data Interpretation  
 GEOL 773 - Seminar in Geophysics

**Elective Courses – Credits: 6**

Complete 6 credits from the following list of courses, or other advisor-approved courses that are appropriate for the course of study.

BIOL 618 - Microbial Ecology  
 CEE 634 - Rock Mechanics  
 CEE 636 - Engineering Geophysics  
 CEE 676 - Earthquake Engineering  
 CEE 737 - Soil Dynamics and Earthquake Engineering  
 CEE 775 - Seismic Response of Structures  
 GEOL 630 - Geographic Information Systems (GIS): Theory and Applications  
 GEOL 643 - Plate Tectonics  
 GEOL 644 - Tectonics of Orogenic Belts  
 GEOL 646 - Geologic Applications in Remote Sensing  
 GEOL 678 - Hydrogeochemistry  
 GEOL 688 - Microtechniques in Geoscience  
 GEOL 716 - Geostatistics  
 GEOL 744 - Tectonics and Structures  
 GEOL 745 - Advanced Structural Geology

GEOL 746 - Strain and Microstructural Analysis  
 GEOL 747 - Geological Evolution of Western North America  
 GEOL 770 - Sedimentary Basins  
 GEOL 772 - Reflection Seismic Data Interpretation  
 GEOL 773 - Seminar in Geophysics

**Dissertation – Credits: 12**

GEOL 799 - Dissertation

**Degree Requirements**

1. Students must complete a minimum of 36 credit hours with a minimum GPA of 3.00.
2. A minimum of 12 of the 36 credits required must be at the 700-level.
3. Although more course work and dissertation credits may be taken, only 12 credits of Dissertation, and 24 course credits will be counted toward the degree program.
4. Doctoral students are encouraged to take courses from outside of geoscience; however, a minimum of 15 credits must be geoscience (GEOL) courses.
5. A maximum of three credits of Independent Study are permitted, except in special circumstances in which case permission from the doctoral advising committee, the department Graduate Coordinator and the department chair is required.
6. Satisfactory progress toward meeting the degree requirements is required of all candidates. Satisfactory progress is defined as, at a minimum:
  - a. Maintenance of at least a 3.00 grade point average in all graduate-level courses. Two grades of B- are permitted in the degree program as long as the GPA remains at or above 3.00. One grade of C+ or lower results in academic probation even if the overall GPA is above 3.0. Two grades of C+ or lower will result in automatic suspension from the program.
  - b. Selecting a dissertation advisor and committee. The advisor must be selected before the end of the first

- semester and the committee before the end of the second semester.
- c. Scheduling of an interview with the advisor either during or before the first semester. If an advisor is not selected, a temporary advisor will be assigned by the graduate coordinator. The purpose of the interview is to develop a plan of course work for the first year.
  - d. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
  - e. Scheduling of a diagnostic interview with the Advisory Committee before the end of the 2nd semester. The purpose of the interview is to develop a list of recommended courses and design the student's degree program, which must be submitted prior to completing 16 credits of course work toward the degree.
  - f. Preparation of a dissertation proposal and satisfactory performance on a Proposal Defense Examination. This examination must be completed prior to the end of the third semester. The Proposal Defense Examination focuses on the dissertation proposal and the student's ability to perform the research. It includes a formal oral presentation of the student's dissertation proposal, research to date, and questions by the dissertation advisory committee on the dissertation topic. The Proposal Defense Examination is to be taken prior to the Comprehensive Examination.
  - g. Satisfactory performance on the Comprehensive Examination. Ph.D. students must have a basic knowledge of Physical Geology in addition to a comprehensive knowledge of three fields of geosciences (see Department of Geoscience Graduate Student Guidelines for recommended fields for each Ph.D. Emphasis). The format and content of the exam will be determined by the student's doctoral advisory committee with approval of the department graduate coordinator. The Comprehensive Examination will be taken either the semester after all course work is completed or before the end of the fifth semester, whichever comes first. The examination will be oral. In exceptional circumstances, as determined by the student's dissertation committee and the graduate coordinator, the examination will consist of both oral and written components. Students who fail to pass the Comprehensive Examination or Proposal Defense on the first attempt must successfully complete a second examination (as specified by the doctoral advisory committee) within the next six months to remain in the program. Students who entered the program with a baccalaureate degree and who fail the second examination may be allowed to continue as a Master of Science student with the consent of the doctoral advising committee. Students who entered the program with a master's degree who fail the examination a second time will be separated from the program. A student who has successfully passed both the

Proposal Defense and Comprehensive Examinations will be admitted to candidacy for the Ph.D. degree.

- h. Satisfactory performance on a final examination will consist of the presentation and defense of the dissertation research. The defense will consist of an oral presentation open to the public, a short period of questions from the public, a closed session of questions from the doctoral advising committee, and a closed deliberation and vote by just the advisory committee members. Any graduate faculty member may attend the closed session of questions of the defense.
7. Using Degree Audit as a guide, a degree program must be approved by the advisory committee prior to the beginning of the third semester of enrollment.
8. It is recommended that the student be a teaching assistant or instructor for at least one semester.
9. Students may request a maximum of 15 graduate credits taken at UNLV prior to admission be included in the graduate degree program, providing those credits were not used to fulfill undergraduate requirements and a grade of B (3.00) or higher was achieved.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 7 Requirements: Post-Master's - Soil Science Track**

Total Credits Required: 36

Course Requirements

#### **Required Courses – Credits: 9**

GEOL 610 - Soil Classification and Resource Management

GEOL 701 - Research Methods in Geoscience

GEOL 786 - Soils Applications: Paleoclimate, Neotectonics, Archeology

#### **Elective Courses – Credits: 15**

Complete 15 credits from the following list of courses, or other advisor-approved courses that are appropriate for the course of study.

BIOL 618 - Microbial Ecology

BIOL 745 - Arid Zone Soils

GEOL 630 - Geographic Information Systems (GIS): Theory and Applications

GEOL 646 - Geologic Applications in Remote Sensing

GEOL 688 - Microtechniques in Geoscience

GEOL 712 - Watershed Hydrology

GEOL 716 - Geostatistics

GEOL 719 - Vadose Zone Hydrology

GEOL 735 - Seminar in Environmental Geology

GEOL 740 - Arid Zone Soils

GEOL 744 - Tectonics and Structures

GEOL 760 - Advanced Spatial Modeling with GIS

GEOL 770 - Sedimentary Basins

GEOL 776 - Paleosols Records of Past Landscapes

#### **Dissertation – Credits: 12**

GEOL 799 - Dissertation

#### Degree Requirements

1. Students must complete a minimum of 36 credit hours with a minimum GPA of 3.00.
2. A minimum of 12 of the 36 credits required must be at the 700-level.
3. Although more course work and dissertation credits may be taken, only 12 credits of Dissertation, and 24 course credits will be counted toward the degree program.
4. Doctoral students are encouraged to take courses from outside of geoscience; however, a minimum of 15 credits must be geoscience (GEOL) courses.
5. A maximum of three credits of Independent Study are permitted, except in special circumstances in which case permission from the doctoral advising committee, the department Graduate Coordinator and the department chair is required.
6. Satisfactory progress toward meeting the degree requirements is required of all

candidates. Satisfactory progress is defined as, at a minimum:

- a. Maintenance of at least a 3.00 grade point average in all graduate-level courses. Two grades of B- are permitted in the degree program as long as the GPA remains at or above 3.00. One grade of C+ or lower results in academic probation even if the overall GPA is above 3.0. Two grades of C+ or lower will result in automatic suspension from the program.
- b. Selecting a dissertation advisor and committee. The advisor must be selected before the end of the first semester and the committee before the end of the second semester.
- c. Scheduling of an interview with the advisor either during or before the first semester. If an advisor is not selected, a temporary advisor will be assigned by the graduate coordinator. The purpose of the interview is to develop a plan of course work for the first year.
- d. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
- e. Scheduling of a diagnostic interview with the Advisory Committee before the end of the 2nd semester. The purpose of the interview is to develop a list of recommended courses and design the student's degree program, which must be submitted prior to completing 16 credits of course work toward the degree.
- f. Preparation of a dissertation proposal and satisfactory performance on a Proposal Defense Examination. This examination must be completed prior to the end of the third semester. The Proposal Defense Examination focuses on the dissertation proposal and the student's ability to perform the research. It includes a formal oral presentation of the student's dissertation proposal, research to date, and questions by the dissertation advisory committee on the dissertation topic. The Proposal Defense Examination is to be taken prior to the Comprehensive Examination.
- g. Satisfactory performance on the Comprehensive Examination. Ph.D. students must have a basic knowledge of Physical Geology in addition to a comprehensive knowledge of three fields of geosciences (see Department of Geoscience Graduate Student Guidelines for recommended fields for each Ph.D. Emphasis). The format and content of the exam will be determined by the student's doctoral advisory committee with approval of the department graduate coordinator. The Comprehensive Examination will be taken either the semester after all course work is completed or before the end of the fifth semester, whichever comes first. The examination will be oral. In exceptional circumstances, as determined by the student's dissertation committee and the graduate coordinator, the examination will consist of both oral and written components. Students who fail to pass the Comprehensive Examination or Proposal Defense on the first attempt must successfully complete

a second examination (as specified by the doctoral advisory committee) within the next six months to remain in the program. Students who entered the program with a baccalaureate degree and who fail the second examination may be allowed to continue as a Master of Science student with the consent of the doctoral advising committee. Students who entered the program with a master's degree who fail the examination a second time will be separated from the program. A student who has successfully passed both the Proposal Defense and Comprehensive Examinations will be admitted to candidacy for the Ph.D. degree.

- h. Satisfactory performance on a final examination will consist of the presentation and defense of the dissertation research. The defense will consist of an oral presentation open to the public, a short period of questions from the public, a closed session of questions from the doctoral advising committee, and a closed deliberation and vote by just the advisory committee members. Any graduate faculty member may attend the closed session of questions of the defense.
7. Using Degree Audit as a guide, a degree program must be approved by the advisory committee prior to the beginning of the third semester of enrollment.
8. It is recommended that the student be a teaching assistant or instructor for at least one semester.
9. Students may request a maximum of 15 graduate credits taken at UNLV prior to admission be included in the graduate degree program, providing those credits were not used to fulfill undergraduate requirements and a grade of B (3.00) or higher was achieved.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 8 Requirements: Post-Master's - Hydrogeology Track**

Total Credits Required: 36  
Course Requirements

#### **Required Course – Credits: 3**

GEOL 701 - Research Methods in Geoscience

#### **Elective Courses – Credits: 21**

Complete 21 credits from the following list of courses, or other advisor-approved courses that are appropriate for the course of study.

BIOL 618 - Microbial Ecology  
 BIOL 745 - Arid Zone Soils  
 GEOL 630 - Geographic Information Systems (GIS): Theory and Applications  
 GEOL 646 - Geologic Applications in Remote Sensing  
 GEOL 674 - Hydrogeology  
 GEOL 678 - Hydrogeochemistry  
 GEOL 688 - Microtechniques in Geoscience  
 GEOL 709 - Field Methods in Hydrogeology  
 GEOL 711 - Principles of Hydrology and Hydraulics  
 GEOL 712 - Watershed Hydrology  
 GEOL 715 - Advanced Hydrogeology  
 GEOL 716 - Geostatistics  
 GEOL 719 - Vadose Zone Hydrology  
 GEOL 735 - Seminar in Environmental Geology  
 GEOL 740 - Arid Zone Soils  
 GEOL 744 - Tectonics and Structures  
 GEOL 760 - Advanced Spatial Modeling with GIS  
 GEOL 765 - Seminar in Stratigraphy  
 GEOL 770 - Sedimentary Basins  
 GEOL 776 - Paleosols Records of Past Landscapes  
 GEOL 785 - Seminar in Sedimentology  
 GEOL 792 - Seminar in Hydroscience

#### **Dissertation – Credits: 12**

GEOL 799 - Dissertation

Degree Requirements

1. Students must complete a minimum of 36 credit hours with a minimum GPA of 3.00.

2. A minimum of 12 of the 36 credits required must be at the 700-level.
3. Although more course work and dissertation credits may be taken, only 12 credits of Dissertation, and 24 course credits will be counted toward the degree program.
4. Doctoral students are encouraged to take courses from outside of geoscience; however, a minimum of 15 credits must be geoscience (GEOL) courses.
5. A maximum of three credits of Independent Study are permitted, except in special circumstances in which case permission from the doctoral advising committee, the department Graduate Coordinator and the department chair is required.
6. Satisfactory progress toward meeting the degree requirements is required of all candidates. Satisfactory progress is defined as, at a minimum:
  - a. Maintenance of at least a 3.00 grade point average in all graduate-level courses. Two grades of B- are permitted in the degree program as long as the GPA remains at or above 3.00. One grade of C+ or lower results in academic probation even if the overall GPA is above 3.0. Two grades of C+ or lower will result in automatic suspension from the program.
  - b. Selecting a dissertation advisor and committee. The advisor must be selected before the end of the first semester and the committee before the end of the second semester.
  - c. Scheduling of an interview with the advisor either during or before the first semester. If an advisor is not selected, a temporary advisor will be assigned by the graduate coordinator. The purpose of the interview is to develop a plan of course work for the first year.
  - d. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
  - e. Scheduling of a diagnostic interview with the Advisory Committee before the end of the 2nd semester. The purpose of the interview is to develop a list of recommended courses and design the student's degree program, which must be submitted prior to completing 16 credits of course work toward the degree.
  - f. Preparation of a dissertation proposal and satisfactory performance on a Proposal Defense Examination. This examination must be completed prior to the end of the third semester. The Proposal Defense Examination focuses on the dissertation proposal and the student's ability to perform the research. It includes a formal oral presentation of the student's dissertation proposal, research to date, and questions by the dissertation advisory committee on the dissertation topic. The Proposal Defense Examination is to be taken prior to the Comprehensive Examination.
  - g. Satisfactory performance on the Comprehensive Examination. Ph.D. students must have a basic knowledge of Physical Geology in addition to a comprehensive knowledge of three fields of geosciences (see Department of Geoscience Graduate Student Guidelines for recommended fields for each Ph.D. Emphasis). The format and content of the exam will be determined by the student's doctoral advisory committee with



approval of the department graduate coordinator. The Comprehensive Examination will be taken either the semester after all course work is completed or before the end of the fifth semester, whichever comes first. The examination will be oral. In exceptional circumstances, as determined by the student's dissertation committee and the graduate coordinator, the examination will consist of both oral and written components. Students who fail to pass the Comprehensive Examination or Proposal Defense on the first attempt must successfully complete a second examination (as specified by the doctoral advisory committee) within the next six months to remain in the program. Students who entered the program with a baccalaureate degree and who fail the second examination may be allowed to continue as a Master of Science student with the consent of the doctoral advising committee. Students who entered the program with a master's degree who fail the examination a second time will be separated from the program. A student who has successfully passed both the Proposal Defense and Comprehensive Examinations will be admitted to candidacy for the Ph.D. degree.

- h. Satisfactory performance on a final examination will consist of the presentation and defense of the dissertation research. The defense will consist of an oral presentation open to the public, a short period of questions from the public, a closed session of questions from the doctoral advising committee, and a closed deliberation and vote by just the advisory committee members.

Any graduate faculty member may attend the closed session of questions of the defense.

7. Using Degree Audit as a guide, a degree program must be approved by the advisory committee prior to the beginning of the third semester of enrollment.
8. It is recommended that the student be a teaching assistant or instructor for at least one semester.
9. Students may request a maximum of 15 graduate credits taken at UNLV prior to admission be included in the graduate degree program, providing those credits were not used to fulfill undergraduate requirements and a grade of B (3.00) or higher was achieved.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Master of Science - Geoscience

### Plan Description

The Master of Science – Geoscience degree is designed to prepare students for a broad range of challenging careers in government service, private consulting, and industry. This thesis-based degree program also serves as a stepping-stone for those students who wish to pursue further graduate studies at the Doctoral level. Working closely with their advisor, students focus on original research in one of several areas of specialization, including: petrology, volcanology, economic geology, structural geology, sedimentology, geochemistry, hydrology, soil science, climate change, petroleum geology, and paleontology. Students are expected to develop original research suitable for submission to a refereed scientific journal. Students are expected to have strong content knowledge in their area of emphasis, which is tested during the culminating defense of their thesis research.

**For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

#### *Geology Track*

The emphasis in Geology includes the fields of economic geology, environmental geology, geochemistry, geochronology, geomorphology, igneous petrology, paleontology, metamorphic petrology, Quaternary geology, pedology, sedimentology, stratigraphy, structural geology, surficial processes, tectonics, and volcanology.

Applicants must satisfy the following requirements:

1. A bachelor's degree in geology or equivalent.
2. In order to be admitted without contingencies the student must have completed an introductory geology class and six of the following eight classes (or their equivalents): mineralogy, geochemistry, geomorphology, structural geology, igneous and metamorphic petrology, paleontology, field geology, and sedimentology/stratigraphy.

#### *Geophysics Track*

Applicants must satisfy the following requirements:

1. A bachelor's degree in geology, engineering, physics or mathematics.
2. To be admitted to the program with a Geophysics emphasis, it is recommended that the student have completed the following courses for unconditional admission to the program.
  1. Mathematics: Three semesters of calculus
  2. Physics: Two semesters of introductory (calculus level) physics
  3. Geology: Physical geology, historical geology, mineralogy, structural geology, sedimentology/stratigraphy, and igneous and metamorphic petrology.

#### *Soil Science Track*

Applicants must satisfy the following requirements:

1. B.S. degree in a Natural Science (or similar field and course work) or B.A. degree in Natural Science (or similar field and course work) with approval of the graduate coordinator.
2. To be admitted to the program with a Soil Science emphasis, it is recommended that the student have completed two of the following courses for unconditional admission to the program: Mineralogy, Geomorphology, Sedimentology/Stratigraphy, or Geochemistry.

### *Hydrogeology Track*

Applicants must satisfy the following requirements:

1. A B.S. degree in geology or a related discipline (e.g., civil engineering).
2. To be admitted to the program with a hydrogeology emphasis, it is required that the student have completed four of the following courses (or their equivalents) for unconditional admission to the program:

GEOL 474 – Hydrogeology

GEOL 330 – Geochemistry

GEOL 333 – Geomorphology

GEOL 341 – Structural Geology

GEOL 348 – Field Geology

GEOL 462 – Stratigraphy and Sedimentology

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Geology Track**

Total Credits Required: 30

Course Requirements

#### **Required Courses – Credits: 4**

GEOL 701 - Research Methods in Geoscience

GEOL 795 - Poster Presentation and Time Management

#### **Elective Courses – Credits: 20**

Complete 20 credits of 600- or 700-level GEOL courses, or other advisor-approved courses.

#### **Thesis – Credits: 6**

GEOL 797 - Thesis

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 2 Requirements: Geophysics Track**

Total Credits Required: 30

Course Requirements

#### **Required Courses – Credits: 4**

GEOL 701 - Research Methods in Geoscience

GEOL 795 - Poster Presentation and Time Management

#### **Core Course – Credits: 3**

Complete one of the following courses:

CEE 636 - Engineering Geophysics

GEOL 645 - Geophysical Methods

#### **Additional Core Course – Credits: 3**

Complete one of the following courses:

ECG 780 - Digital Signal Processing

GEOL 793 - Independent Study and Research

#### **Geophysics Courses – Credits: 9**

Complete 9 credits in three or more of the following courses, or other advisor-approved courses.

BIOL 618 - Microbial Ecology

CEE 634 - Rock Mechanics

CEE 636 - Engineering Geophysics

CEE 676 - Earthquake Engineering

CEE 737 - Soil Dynamics and Earthquake Engineering

CEE 775 - Seismic Response of Structures

GEOL 630 - Geographic Information Systems (GIS): Theory and Applications

GEOL 643 - Plate Tectonics

GEOL 644 - Tectonics of Orogenic Belts

GEOL 646 - Geologic Applications in Remote Sensing

GEOL 678 - Hydrogeochemistry

GEOL 688 - Microtechniques in Geoscience

GEOL 716 - Geostatistics

GEOL 744 - Tectonics and Structures

GEOL 745 - Advanced Structural Geology  
GEOL 746 - Strain and Microstructural Analysis  
GEOL 747 - Geological Evolution of Western North America  
GEOL 770 - Sedimentary Basins  
GEOL 772 - Reflection Seismic Data Interpretation  
GEOL 773 - Seminar in Geophysics

**Elective Courses – Credits: 5**

Complete 5 credits from the following list of courses, or other advisor-approved courses that are appropriate for the course of study.

BIOL 618 - Microbial Ecology  
CEE 634 - Rock Mechanics  
CEE 636 - Engineering Geophysics  
CEE 676 - Earthquake Engineering  
CEE 737 - Soil Dynamics and Earthquake Engineering  
CEE 775 - Seismic Response of Structures  
GEOL 630 - Geographic Information Systems (GIS): Theory and Applications  
GEOL 643 - Plate Tectonics  
GEOL 644 - Tectonics of Orogenic Belts  
GEOL 646 - Geologic Applications in Remote Sensing  
GEOL 678 - Hydrogeochemistry  
GEOL 688 - Microtechniques in Geoscience  
GEOL 716 - Geostatistics  
GEOL 744 - Tectonics and Structures  
GEOL 745 - Advanced Structural Geology  
GEOL 746 - Strain and Microstructural Analysis  
GEOL 747 - Geological Evolution of Western North America  
GEOL 770 - Sedimentary Basins  
GEOL 772 - Reflection Seismic Data Interpretation  
GEOL 773 - Seminar in Geophysics

**Thesis – Credits: 6**

GEOL 797 - Thesis

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 3 Requirements: Soil Science Track**

Total Credits Required: 30  
Course Requirements

**Required Courses – Credits: 10**

GEOL 610 - Soil Classification and Resource Management  
GEOL 701 - Research Methods in Geoscience  
GEOL 786 - Soils Applications: Paleoclimate, Neotectonics, Archeology  
GEOL 795 - Poster Presentation and Time Management

**Elective Courses – Credits: 14**

Complete 14 credits from the following list of courses, or other advisor-approved courses that are appropriate for the course of study.

BIOL 618 - Microbial Ecology  
BIOL 745 - Arid Zone Soils  
GEOL 630 - Geographic Information Systems (GIS): Theory and Applications  
GEOL 646 - Geologic Applications in Remote Sensing  
GEOL 688 - Microtechniques in Geoscience  
GEOL 712 - Watershed Hydrology  
GEOL 716 - Geostatistics  
GEOL 719 - Vadose Zone Hydrology  
GEOL 735 - Seminar in Environmental Geology  
GEOL 740 - Arid Zone Soils  
GEOL 744 - Tectonics and Structures  
GEOL 760 - Advanced Spatial Modeling with GIS  
GEOL 770 - Sedimentary Basins  
GEOL 776 - Paleosols Records of Past Landscapes

**Thesis – Credits: 6**

GEOL 797 - Thesis

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 4 Requirements: Hydrogeology Track**

Total Credits Required: 30

Course Requirements

### Required Courses – Credits: 4

GEOL 701 - Research Methods in Geoscience

GEOL 795 - Poster Presentation and Time Management

### Elective Courses – Credits: 20

Complete 20 credits from the following list of courses, or other advisor-approved courses that are appropriate for the course of study.

GEOL 630 - Geographic Information Systems (GIS): Theory and Applications

GEOL 646 - Geologic Applications in Remote Sensing

GEOL 674 - Hydrogeology

GEOL 678 - Hydrogeochemistry

GEOL 709 - Field Methods in Hydrogeology

GEOL 711 - Principles of Hydrology and Hydraulics

GEOL 712 - Watershed Hydrology

GEOL 715 - Advanced Hydrogeology

GEOL 716 - Geostatistics

GEOL 719 - Vadose Zone Hydrology

GEOL 740 - Arid Zone Soils

GEOL 744 - Tectonics and Structures

GEOL 760 - Advanced Spatial Modeling with GIS

GEOL 765 - Seminar in Stratigraphy

GEOL 785 - Seminar in Sedimentology

GEOL 792 - Seminar in Hydroscience

### Thesis – Credits: 6

GEOL 797 - Thesis

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### Plan Degree Requirements

1. Students must complete a minimum of 30 credit hours with a minimum GPA of 3.00.

2. At least 12 credits (excluding thesis) must be in 700-level courses.
3. GEOL 701 and GEOL 795 must be taken during the first year of enrollment.
4. Credits taken at other institutions will be considered for transfer; however, at least 16 of the 24 course credits required for the degree (not including thesis credits) must be taken at UNLV.
5. Students must confer with their appointed advisor prior to enrollment in their first semester. Using Degree Audit as a guide, a degree program must be approved by the advisory committee. A thesis prospectus must be filed with the Graduate College, and a thesis committee must be appointed by the end of the second semester after admission to the college. This responsibility rests with the student. Students will be dropped from the program and separated from the Graduate College if they fail to fulfill this requirement.
6. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
7. Satisfactory progress toward meeting the degree requirements is required of all students. Satisfactory progress includes maintaining at least a 3.00 grade point average in all graduate-level courses. Consult the Geoscience Graduate Student Guidelines at <http://geoscience.unlv.edu/graduatestudentguidelines.htm> for full details.

### Plan Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Geosciences Courses

### GEOG 621 - Climatology

Credits 3

Physical characteristics of the atmosphere. World climatic classification. Local atmospheric field study.

**Notes** This course is crosslisted with GEOG 421.

Credit at the 600-level requires additional work.

**Prerequisites** GEOG 103 or consent of instructor.

### GEOL 610 - Soil Classification and Resource Management

Credits 4

Morphology and classification of soils based on their physical, chemical and mineralogical composition. Introduction to soil genesis, soil mapping, and the relationship of soils to the limitations and potentials of land use.

**Notes** This course is crosslisted with GEOL 410.

Credit at the 600-level requires additional work.

### GEOL 619 - Medical Geology

Credits 3

Medical Geology is the science surrounding the relationship between geological factors and health in humans, animals, and plants. This class focuses on the relationships between geology and human health.

**Notes** This course is crosslisted with GEOL 419.

Credit at the 600-level requires additional work.

### GEOL 620 - Introduction to X-ray Diffraction and X-ray Spectrometry Methods

Credits 4

Introduction to the principles and methods of x-ray analysis as applied to the study of minerals. Powder camera, diffractometry and spectrometry methods covered. Two hours lecture and six hours laboratory.

**Notes** This course is crosslisted with GEOL 420.

Credit at the 600-level requires additional work.

### GEOL 625 - Principles of Geochemistry

Credits 3

Fundamental geochemical processes operating within the earth's lithosphere, hydrosphere and atmosphere. Topics include chemical differentiation of the earth, crystal chemistry, mineral stability and phase diagrams, aqueous geochemistry, isotope geochemistry, organic chemistry.

**Notes** This course is crosslisted with GEOL 425.

Credit at the 600-level requires additional work.

**Prerequisites** College level chemistry or geochemistry.

GEOL 629 - Geochemical Thermodynamics and Kinetics

Credits 3

Survey of the basic principles of thermodynamics and kinetics and their application to geological processes; applications to include igneous, metamorphic, hydrothermal, diagenetic, weathering, and aqueous systems.

**Notes** This course is crosslisted with GEOL 429. Credit at the 600-level requires additional work.

GEOL 630 - Geographic Information Systems (GIS): Theory and Applications

Credits 4

Survey of computer-based techniques in the storage, retrieval, analysis, and representation of spatially referenced data. Emphasis on the application of GIS technology to geologic problems such as natural hazard mapping, surface runoff and erosion, and environmental impact assessment.

**Notes** This course is crosslisted with GEOL 430. Credit at the 600-level requires additional work.

GEOL 633 - Glacial and Periglacial Geology

Credits 3

Origin and regimen of glaciers. Geomorphology and stratigraphic analysis of glacial and associated non-glacial deposits and environments.

**Notes** This course is crosslisted with GEOL 433. Credit at the 600-level requires additional work.

GEOL 634 - Quaternary Geology

Credits 3

Survey of global paleoenvironments, including geologic, climatic, and biotic changes during the Quaternary. Examination of the geological record of marine and terrestrial glaciated and nonglaciated environments.

**Notes** This course is crosslisted with GEOL 434. Credit at the 600-level requires additional work.

GEOL 636 - Quaternary Paleoecology

Credits 3

Examination of the fossil record of the Quaternary including vertebrate, invertebrate, and floral assemblages. Emphasis on paleoenvironmental and paleoclimatological reconstructions.

**Notes** This course is crosslisted with GEOL 436. Credit at the 600-level requires additional work.

GEOL 637 - Paleoclimatology

Credits 3

Paleoclimatic history of the Earth, with emphasis on the Neogene and Quaternary Periods. Survey of marine and terrestrial geological records of paleoclimate, including physical sedimentology, geochemistry, and pollen profiles of ice and sediment cores and speleothems.

**Notes** This course is crosslisted with GEOL 437. Credit at the 600-level requires additional work.

GEOL 640 - Volcanology

Credits 3

Description and classification of volcanoes, volcanic eruptions, and volcanic deposits. Emphasis on the dynamics of volcanic eruptions, pyroclastic rocks, lava flows, and volcanic hazard assessment.

**Notes** This course is crosslisted with GEOL 440. Credit at the 600-level requires additional work.

GEOL 643 - Plate Tectonics

Credits 3

Study of the earth's origin, age, thermal and magnetic history; the dynamics and internal structure of lithospheric plates; the mechanisms and geometric constraints of plate motion; and a review of the motions of plates in the past.

**Notes** This course is crosslisted with GEOL 443. Credit at the 600-level requires additional work.

GEOL 644 - Tectonics of Orogenic Belts

Credits 3

Study of crustal deformation and the creation of mountain belts around the world. Emphasis on the comparative structural development of different regions around the globe within the context of plate tectonics.

**Notes** This course is crosslisted with GEOL 444. Credit at the 600-level requires additional work.

GEOL 645 - Geophysical Methods

Credits 4

Introduction to geophysical methods, including measurement techniques, rock properties, and interpretation methods using seismology, gravity, magnetics, ground penetrating radar, resistivity and well logs.

**Notes** This course is crosslisted with GEOL 445/445L. Credit at the 600-level requires additional work.

GEOL 645L - Geophysical Methods Lab  
Graduate credit may be obtained for courses designated 600 or above. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Notes** This course is crosslisted with GEOL 445L. Credit at the 600-level requires additional work.  
GEOL 646 - Geologic Applications in Remote Sensing  
Credits 3

Introduction in the acquisition, processing, and interpretation of remote sensing data. Topics covered include basic mapping concepts, the structure of remote sensing data and analysis, thermal and radar techniques, and classification schemes.

**Notes** This course is crosslisted with GEOL 446. Credit at the 600-level requires additional work.

GEOL 646L - Geologic Applications in Remote Sensing Lab  
Graduate credit may be obtained for courses designated 600 or above. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Notes** Credit at the 600-level normally requires additional work.

GEOL 649 - Geochronology  
Credits 3  
Theoretical foundations and modern analytical techniques used in isotopic dating of rocks. Discussion of applications to specific geologic problems and the thermal significance of isotopic dates. Survey of new dating techniques.  
**Notes** This course is crosslisted with GEOL 449. Credit at the 600-level requires additional work.

GEOL 671 - Petroleum Geology  
Credits 4  
Origin, migration, accumulation, and geologic distribution of petroleum. Surface, sub-surface and geophysical methods of exploration.  
**Notes** This course is crosslisted with GEOL 471. Credit at the 600-level requires additional work.

GEOL 674 - Hydrogeology  
Credits 3  
Factors controlling the occurrence and distribution of water resource, its quality and quantity, methods of exploration and development.

**Notes** This course is crosslisted with GEOL 474. Credit at the 600-level requires additional work.

GEOL 677 - Geology of Metallic Ore Deposits  
Credits 4  
Geology of metallic ore deposits, origin, occurrence, and alteration. Application of ore deposit characteristics to exploration.  
**Notes** This course is crosslisted with GEOL 477. Credit at the 600-level requires additional work.

GEOL 678 - Hydrogeochemistry  
Credits 3  
Principles of aquatic geochemistry such as chemical thermodynamics, tableaux, and oxidation reduction and environmental organic geochemistry such as physicochemical properties of organic compounds and air/water/soil exchange of organic compounds for environmental studies. Concepts for practical environmental problems, geochemical modeling, and contaminant transport.

**Notes** This course is crosslisted with GEOL 478. Credit at the 600-level requires additional work.

GEOL 685 - Engineering Geology  
Credits 3  
Application of physical geology to the construction industry. Consideration given to landslide problems, sites for dams, bridges, tunnels and canals; and possible control of erosion and sedimentation by rivers and oceans.

**Notes** This course is crosslisted with GEOL 485. Credit at the 600-level requires additional work.

GEOL 688 - Microtechniques in Geoscience  
Credits 3  
Microanalytical techniques including transmitted and reflected light petrology and petrography, micro-imaging scanning electron microscope (SEM) and electron microprobe (EMP), chemical microanalyses (EMP), fluid inclusion microthermometry, and melt inclusion petrography. Project tailored to the student's interest required.

**Notes** This course is crosslisted with GEOL 488. Credit at the 600-level requires additional work.



GEOL 701 - Research Methods in Geoscience

Credits 3

Discussion of the processes of scientific research and research design as applied to modern geoscience. Includes scientific approaches to field and laboratory research, research and professional ethics, writing, and public presentation. Model thesis prospectus and grant proposals prepared.

**Notes** Required weekend field trips familiarize students with the local geology.

**Prerequisites** Graduate standing or consent of instructor.

GEOL 703 - Topics in Advanced Geochemistry

Credits 3

This course will cover topics in advanced geochemistry, such as thermodynamics, kinetics, oxidation-reduction, acids and bases, weathering, and other topics of interest.

**Notes** May be repeated to a maximum of twelve credits.

GEOL 707 - Stable Isotope Geochemistry

Credits 3

Investigates stable isotopes in the hydrologic and geologic cycles, and their use as tracers in paleoclimatology, hydrogeology, and oceanography. Theory and research applications of stable isotopes in geologic, biologic, water, and atmospheric samples, including carbon, oxygen, hydrogen, nitrogen, strontium, and sulfur isotopes.

**Prerequisites** Geochemistry.

GEOL 708 - Radiogenic Isotope Geochemistry

Credits 3

Principles of radiogenic isotope geochemistry as a monitor of geochemical processes in the mantle, lithosphere and hydrosphere; applications to petrology, tectonics, economic geology, marine geology and paleoclimatology.

**Prerequisites** GEOL 330, GEOL 426, MATH 181 or equivalent, or consent of instructor.

GEOL 709 - Field Methods in Hydrogeology

Credits 3

A survey of techniques used to investigate field problems in hydrogeology. Data collection, analysis, and professional presentation of results are emphasized. Topics may include: water balance measures, water table mapping, estimation of

hydraulic parameters, and ground-water monitoring. Additional topics suggested by students may also be explored.

GEOL 710 - Igneous Petrology

Credits 4

Origin of igneous rocks, relation of magma types to tectonic settings, physical properties of magmas, application of trace elements and isotopes to petrogenesis, modeling of crystal fractionation and partial melting, phase diagrams.

**Notes** Six hours laboratory.

**Prerequisites** GEOL 325 or equivalent or consent of instructor.

GEOL 711 - Principles of Hydrology and Hydraulics

Credits 3

Consideration of modern concepts of hydrology and hydraulics. Includes coverage of statistical methods of analysis, unsteady flow, channel design, modeling and simulation, urban hydrology, and design of hydraulic structures.

**Prerequisites** Consent of instructor.

GEOL 712 - Watershed Hydrology

Credits 3

Concepts and processes controlling water movement and distribution within the watershed; analysis techniques for understanding watershed dynamics; numerical simulation of various watershed-scale hydrologic processes.

**Prerequisites** Consent of instructor.

GEOL 713 - Flow and Transport in Unsaturated Fractured Media

Credits 3

Explores the current state of understanding regarding fluid flow and contaminant transport in unsaturated fractured geologic media (e.g., rock, soil) through review of recent literature. Competing conceptual models are contrasted in light of existing capabilities for numerical simulation at the scale of pertinent applied problems.

GEOL 715 - Advanced Hydrogeology

Credits 4

Advanced concepts used in ground water investigations, including flow system analysis, resource evaluation, exploration, development, and

monitoring.

**Prerequisites** GEOL 674

GEOL 716 - Geostatistics

Credits 3

Analysis of the spatial and temporal variations in geologic, hydrologic and geochemical data, including derived distributions, time series analysis, correlation and spectral analysis, interpolation techniques, cluster analysis and sensitivity and uncertainty techniques.

**Prerequisites** STA 491 or 691 (or equivalent) or consent of instructor.

GEOL 719 - Vadose Zone Hydrology

Credits 3

Basic physical properties of soils and water and the physical principles governing the soil-water system. Modeling the transport of moisture and chemicals in unsaturated soil with applications to practical field problems.

**Prerequisites** GEOL 674

GEOL 720 - Advanced Geochemistry

Credits 4

Contemporary geochemistry applied to igneous, metamorphic, and sedimentary rocks, economic mineral deposits, and problems of the origin of the Earth and other terrestrial planets.

**Notes** Six hours laboratory.

**Prerequisites** Graduate standing or consent of instructor.

GEOL 725 - Seminar in Petrology

Credits 3

Analysis of current problems, concepts, and research in petrology and closely related fields.

**Prerequisites** Graduate standing or consent of instructor.

GEOL 727 - Metamorphic Petrology

Credits 4

Application of field studies, petrography, mineralogy, phase equilibria, and isotopic methods to the study of metamorphic rocks and crustal evolution; explores relationships among metamorphism, tectonics and thermal evolution of the crust.

**Notes** Three hours lecture, three hours laboratory.

**Prerequisites** GEOL 429/629 or equivalent and graduate standing, or consent of instructor.

GEOL 730 - Seminar in Quaternary Studies

Credits 3

Evaluation of current methodology focused on solving problems of Quaternary chronology, geomorphic processes, and environmental reconstruction. Emphasis on pluvial and post-pluvial environments of the western United States, the evolution of landforms and the development of stratigraphic units and surficial geology originating during the past three million years.

**Prerequisites** Graduate standing or consent of instructor.

GEOL 735 - Seminar in Environmental Geology

Credits 3

Application of basic geologic concepts to environmental problems: emphasis on geologic hazards, waste disposal, urban planning, resource policy issues, and environmental programs.

**Prerequisites** GEOL 672 or equivalent or consent of instructor.

GEOL 740 - Arid Zone Soils

Credits 3

The role soils have in the soil-plant-atmospheric continuum of arid regions, influence of arid zone soils on all aspects of plant growth and development, influence of soil forming factors on the development of arid soils.

**Same as** (BIO 745)

**Prerequisites** Consent of instructor.

GEOL 742 - Seminar in Volcanology

Credits 3

Analysis of current problems, concepts, and research in volcanology and closely related fields.

**Prerequisites** Graduate standing or consent of instructor.

GEOL 743 - Seminar in Planetary Geology

Credits 3

Analysis of current problems, concepts, and research in planetary geology with emphasis on newly available data.

**Prerequisites** Graduate standing or consent of instructor.

GEOL 744 - Tectonics and Structures

Credits 3

Analysis of upper crustal deformation with emphasis

on faulting, neotectonics and seismic interpretation; includes a group research project with field and literature data collection, analysis and results suitable for presentation at a professional conference.

**Prerequisites** Consent of instructor.

GEOL 745 - Advanced Structural Geology  
Credits 3

Analysis of deformation of the Earth's crust with emphasis on deformation mechanisms operative in rocks at different crustal levels; the geometry, kinematics, and dynamics of common geological structural associations, and mechanism and styles of deformation in orogenic belts.

**Notes** Three hours lecture per week.

**Prerequisites** GEOL 341 and GEOL 349.

GEOL 746 - Strain and Microstructural Analysis  
Credits 4

Examination of the principles and techniques of finite and incremental strain analysis and their application to naturally deformed rocks. Investigation of plastic deformation processes and deformation mechanisms, and recognition and interpretation of microstructures developed during deformation.

**Notes** Three hours lecture, three hours laboratory.

**Prerequisites** GEOL 341 or consent of instructor.

GEOL 747 - Geological Evolution of Western North America  
Credits 3

Study of the geological evolution of western North America. Emphasis on the stratigraphic, structural, and tectonic development of the continent within the framework of plate tectonics.

**Notes** Three hours lecture per week.

**Prerequisites** GEOL 223, GEOL 341, GEOL 462.

GEOL 749 - Advanced Geochronology and Thermochronology  
Credits 3

Detailed discussion of isotopic dating of rocks with application to geologic problems. Diffusion theory and reconstruction of thermal histories of rocks. Includes surface exposure dating using cosmogenic isotopes, study of uranium series disequilibrium, luminescence, electron spin resonance, and <sup>14</sup>C dating.

**Prerequisites** GEOL 426

GEOL 750 - Seminar in Paleobiology  
Credits 3

Fossil record as a tool for understanding evolutionary processes, early history of life, eruptive radiation, mass extinction, macroevolution, and origin of higher taxa.

**Prerequisites** Graduate standing in geology or biology or consent of instructor.

GEOL 755 - Seminar in Paleontology  
Credits 3

Special topics of current interest in paleontology, with emphasis on Great Basin fossil faunas.

**Prerequisites** Graduate standing in geology or biology or consent of instructor.

GEOL 760 - Advanced Spatial Modeling with GIS  
Credits 4

Advanced study in computer-based techniques for storage, retrieval, analysis, and representation of spatially referenced data. Emphasis on development of spatially distributed models in the geosciences using Geographic Information System (GIS) technology. Students required to develop system models in their chosen thesis area.

**Notes** Three hours lecture and three hours lab.

**Prerequisites** GEOL 430 or GEOL 630.

GEOL 762 - Geological Applications of Computers  
Credits 3

Use of computer algorithms to solve geological problems, geostatistics, modeling of geological processes.

**Prerequisites** Graduate standing and CS 116 and 169.

GEOL 765 - Seminar in Stratigraphy  
Credits 3

Special topics in stratigraphy with emphasis on southern Nevada and adjacent regions.

**Prerequisites** Graduate standing or consent of instructor.

GEOL 766 - Earth Systems Change  
Credits 3

Investigate long-term and short-term global climate changes, ocean redox evolution, and their impacts on biospheric innovations. Explore interactions between Earth's sub spheres (lithosphere, hydrosphere, atmosphere, and biosphere) during times of extreme

environmental changes in Earth history and testing methods and techniques for such interactions.

**Prerequisites** Graduate standing or consent of instructor.

#### GEOL 770 - Sedimentary Basins

Credits 3

Analysis of current ideas concerning the plate tectonic setting and evolution of sedimentary basins. Emphasis on characteristic styles of basin sedimentation and resulting stratigraphic framework, provenance of basin fill, chronologic relationship of tectonic events and sedimentation, and methods of basin analysis.

**Prerequisites** Graduate standing or consent of instructor.

#### GEOL 772 - Reflection Seismic Data Interpretation

Credits 4

Fundamentals of geologic interpretation using seismic reflection data. Introduction to seismic data acquisition and processing. Interpretation techniques include well log to seismicities, contour maps and time-to-depth conversion. Interpretation of data from different structural settings, seismic stratigraphy, and 3-D seismic interpretation.

**Notes** Three hour lecture and three hour lab.

**Prerequisites** Graduate standing or consent of instructor.

#### GEOL 772L - Reflection Seismic Data Interpretation

Laboratory

Credits 0

Lab course designed to supplement the lecture course. Interpretations of several structural regimes, structure contour maps, correlation using well logs, creation of synthetics, and the interpretation of a 3-D seismic data set.

**Prerequisites** Graduate standing or consent of instructor.

#### GEOL 773 - Seminar in Geophysics

Credits 1 – 3

Specialized topics in geophysics with an emphasis on current analysis techniques and problems.

**Prerequisites** Graduate standing or consent of instructor.

#### GEOL 775 - Seminar in Economic Geology

Credits 3

Analysis of current problems, concepts and research in economic geology and closely related fields.

**Prerequisites** GEOL 677 or equivalent or consent of instructor.

#### GEOL 776 - Paleosols Records of Past Landscapes

Credits 3

Recognition and analysis of soil horizons preserved in the rock record. Use of paleosols for reconstructing paleoclimates, tectonics, depositional environments, and other aspects of geologic history.

**Prerequisites** Graduate standing and GEOL 462 (or equivalent) or consent of instructor.

#### GEOL 777 - Instrumental Techniques in Geology

Credits 3

Use of modern instrumentation to acquire geological and geochemical data. Includes, but not limited to, the practical application of x-ray diffraction and fluorescence and atomic absorption spectrophotometry.

**Notes** Six hours laboratory.

**Prerequisites** Graduate standing or consent of instructor.

#### GEOL 779 - Theory of Ore Deposition

Credits 3

Study of physical and chemical processes which contribute to metal solubility, transport, and precipitation. Includes fundamental geochemical and thermodynamic concepts as they apply to ore and gangue mineral stability under various geologic conditions.

**Prerequisites** GEOL 426 and GEOL 477.

#### GEOL 780 - Terrigenous Depositional Systems

Credits 3

Examination of modern nonmarine and marine depositional environments dominated by terrigenous sediments, processes that operate in these settings, and responses of sediment to processes. Establish criteria for recognizing these environments and processes in ancient terrigenous sequences.

**Prerequisites** Graduate standing and GEOL 462 or consent of instructor.

#### GEOL 781 - Carbonate Depositional Systems

Credits 3

Examination of modern non-marine and marine depositional environments dominated by carbonate

sediments, organisms that produce sediments, processes that operate in these settings, and responses of sediment to the processes. Establish criteria for recognizing these environments and processes in ancient carbonate sequences.

**Prerequisites** Graduate standing and GEOL 462 or consent of instructor.

#### GEOL 782 - Sandstone Petrology

Credits 4

Description, classification, and interpretation of terrigenous sedimentary rocks. Emphasis on petrographic methods applied to sandstones and interpretation of provenance of sedimentary sequences.

**Prerequisites** GEOL 780 (corequisite) or consent of instructor.

#### GEOL 783 - Carbonate Petrology

Credits 4

Study of the physical and chemical factors important in the genesis and diagenesis of carbonate sediments and rocks. Various analytical techniques covered, with emphasis on thin section petrography for deciphering rock components and diagenesis.

**Prerequisites** GEOL 781 (corequisite) or consent of instructor.

#### GEOL 785 - Seminar in Sedimentology

Credits 1 – 4

Analysis of current problems, concepts, and research in sedimentary geology and related fields. Emphasis may be upon the genesis and diagenesis of specific sedimentary sequences or upon particular depositional or diagenetic environments.

**Prerequisites** Graduate standing and either GEOL 780 or GEOL 781, or consent of instructor.

#### GEOL 786 - Soils Applications: Paleoclimate, Neotectonics, Archeology

Credits 3

Special topics of current interest in soil science with emphasis on the use of soils for applications in geomorphology, paleoclimate, neotectonics, and/or archeology.

**Prerequisites** Graduate standing in geology, biology, anthropology, or consent of instructor.

#### GEOL 787 - Thesis Research

Credits 1 – 6

Supervised research prior to approval of master's program prospectus.

**Notes** May be repeated to a maximum of six credits, but only one credit can be applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** Enrollment in the M.S. Program.

#### GEOL 789 - Dissertation Research

Credits 1 – 6

Supervised research prior to advancement to candidacy in the doctoral program.

**Notes** May be repeated, but only two credits can be applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** Enrollment in the doctoral program.

#### GEOL 792 - Seminar in Hydroscience

Credits 1 – 3

Specialized topics in hydroscience.

#### GEOL 793 - Independent Study and Research

Credits 1 – 3

Independent study and research projects in some field of geology. Proposed project for study must be submitted in writing to the graduate program coordinator and the department chair for approval and credit evaluation at least two weeks prior to registration.

**Notes** May be repeated for credit, but only three credits are permitted per instructor unless special permission is received.

**Prerequisites** Consent of instructor.

#### GEOL 794 - Directed Readings

Credits 1 – 3

Supervised readings on special topics in consultation with a geoscience graduate faculty member.

**Notes** May be repeated to a maximum of six credits. Requires consent of student's academic adviser.

**Grading** S/F grading only.

**Prerequisites** Admission to Geoscience Ph.D. program; Consent of instructor.

#### GEOL 795 - Poster Presentation and Time Management

Credits 1

Presentation of geological information in poster format and time management skills. Poster presentation includes layout and design, focus, data

versus interpretation, computer graphics, verbal presentation and referencing. Time management issues include scheduling, planning, organization, and productivity.

**Notes** Should be taken during first or second semester of graduate program.

**Prerequisites** Graduate standing in Geoscience.

GEOL 796 - Advanced Topics in Geoscience

Credits 1 – 3

Variety of advanced studies of current and/or topical interest in specialized areas of geoscience.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Varies, depending upon the specific topic.

GEOL 797 - Thesis

Credits 1 – 6

**Notes** May be repeated, but only six credits applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** Graduate standing and consent of instructor.

GEOL 799 - Dissertation

Credits 3 – 6

Research analysis and writing toward completion of dissertation and subsequent defense.

**Notes** Twelve credits are required for the degree, may be repeated, but only twelve credits will be applied to the student's degree program. May be repeated but only a maximum of 12 credits may be used in students degree program

**Grading** S/F grade.

**Prerequisites** Successful completion of qualifying examination and approval by department.

## School of Life Sciences

The School of Life Sciences (SoLS) offers programs of studies leading to the Master of Science and Doctor of Philosophy degrees. Each degree requires a research thesis (M.S.) or dissertation (Ph.D.).

Research leading to the M.S. and Ph.D. degrees may be conducted in one or more of the following fields: cellular and molecular biology; genetics; microbiology; bioinformatics; physiology; population, community, and ecosystem ecology; evolutionary biology; systematics; and biogeography. The School has well-equipped laboratories to support faculty and graduate student research. These facilities are enhanced through access to a number of specialized scientific resources, including the Nevada Genomics Center (which house state-of-the-art equipment that includes an RTPCR machine, an Amersham Typhoon imager, a microarray printer, hybridization capacity and scanner, and a DNA capillary sequencer); the UNLV Confocal and Biological Imaging Core (which houses a Nikon A1R confocal laser scanning microscope system); the Ecophysiological Research facility (which includes a greenhouse designed to support experiments at elevated levels of carbon dioxide); an AAALAC-accredited animal care facility; and regional natural history collections, including those of the Wesley E. Niles Herbarium and the Marjorie Barrick Museum. Investigators from the Nevada System of Higher Education's Desert Research Institute also participate in our graduate program. Numerous funding opportunities are available through state-funded graduate assistant programs via statewide initiatives or in association with individual faculty research programs. Prospective students should make contact with one or more faculty members to familiarize themselves with their current research interests, opportunities for conducting research projects, and funding availability. A list of faculty research interests and admission materials are available on-line at the School's web site.

For details regarding application deadlines and the application review process, see the School of Life Sciences' *Graduate Student Handbook*, which is available at <http://sols.unlv.edu/gradhandbook.html>.

*Dennis Bazylinski, Ph.D., Director*  
*Martin R. Schiller, Ph.D., Graduate Coordinator*

## School Life Sciences Faculty

### Director

**Bazylinski, Dennis A.** - *Full Graduate Faculty*  
Professor; Ph.D., University of New Hampshire,  
Durham. *Rebel since 2006.*

### Graduate Coordinator

**Schiller, Martin** - *Full Graduate Faculty*  
Professor; Ph.D., Utah State University. *Rebel Since*  
*2009.*

### Graduate Faculty

**Andres, Andrew J.** - *Full Graduate Faculty*  
Associate Professor; Ph.D., Indiana University,  
Bloomington. *Rebel since 2002.*

**Caberoy, Nora B.** - *Full Graduate Faculty*  
Assistant Professor; B.S., University of the  
Philippines, Los Banos; M.S., University of the  
Philippines, Visayas; Ph.D., Washington State  
University. *Rebel since 2012.*

**Devitt, Dale A.** - *Full Graduate Faculty*  
Professor; Ph.D., University of California,  
Riverside. *Rebel since 2005.*

**Elekovich, Michelle M.** - *Full Graduate Faculty*  
Associate Professor; Ph.D., University of  
Washington, Seattle. *Rebel since 2003.*

**Gibbs, Allen G.** - *Full Graduate Faculty*  
Professor; University of California, San Diego. *Rebel*  
*since 2005.*

**Hedlund, Brian P.** - *Full Graduate Faculty*  
Associate Professor; Ph.D., University of  
Washington, Seattle. *Rebel since 2003.*

**Lee, David V.** - *Full Graduate Faculty*  
Assistant Professor; Ph.D., University of Utah. *Rebel*  
*since 2007.*

**Raftery, Laurel** - *Full Graduate Faculty*  
Associate Professor; A.B., University of California,  
Berkeley; Ph.D., University of Colorado,  
Boulder. *Rebel since 2010*

**Reiber, Carl L.** - *Full Graduate Faculty*  
Professor; Ph.D., University of Massachusetts,  
Amherst. *Rebel since 1993.*

**Riddle, Brett R.** - *Full Graduate Faculty*  
Professor; Ph.D., University of New Mexico,  
Albuquerque. *Rebel since 1990.*

**Robleto, Eduardo A.** - *Full Graduate Faculty*  
Associate Professor; Ph.D., University of Wisconsin,  
Madison. *Rebel since 202.*

**Rodríguez-Robles, Javier A.** - *Full Graduate Faculty*  
Associate Professor; University of California,  
Berkeley. *Rebel since 2002.*

**Schulte, Paul J.** - *Full Graduate Faculty*  
Associate Professor; Ph.D., University of  
Washington, Seattle. *Rebel since 1990.*

**Shen, Jeffery Q.** - *Full Graduate Faculty*  
Full Professor; Ph.D., Washington University, St.  
Louis. *Rebel since 2000.*

**Smith, Stanley D.** - *Full Graduate Faculty*  
Professor; Ph.D., Arizona State University,  
Tempe. *Rebel since 1985.*

**Stark, Lloyd R.** - *Full Graduate Faculty*  
Associate Professor; Ph.D., Pennsylvania State  
University, University Park. *Rebel since 1999.*

**Thompson, Daniel B.** - *Full Graduate Faculty*  
Associate Professor; Ph.D., University of Arizona,  
Tucson. *Rebel since 1990.*

**Tseng, Ai-Sun** - *Full Graduate Faculty*  
Assistant Professor; Ph.D. *Rebel since 2012.*

**Tsourkas, Philippos** - *Full Graduate Faculty*  
Assistant Professor; Ph.D. *Rebel since 2012.*

**Van Breukelen, Frank** - *Full Graduate Faculty*  
Associate Professor; Ph.D., University of Colorado,  
Boulder. *Rebel since 1990.*

**Walker, Lawrence R.** - *Full Graduate Faculty*  
Professor; Ph.D., University of Alaska,  
Fairbanks. *Rebel since 1992.*

**Wing, Helen J.** - *Full Graduate Faculty*  
Associate Professor; Ph.D., University of  
Birmingham, Edgbaston, United Kingdom. *Rebel  
since 2005.*

#### **Professors Emeriti**

**Babero, Bert B.**  
Emeritus Professor; Ph.D., University of Illinois.  
*UNLV Emeritus 1965-1987.*

**Murvosh, Chad M.**  
Emeritus Professor; Ph.D., Ohio State University,  
Columbus. *UNLV Emeritus 1964-1992.*

**Niles, Wesley E.**  
Emeritus Professor; Ph.D., University of Arizona,  
Tucson. *UNLV Emeritus 1968-2002.*

**Yousef, Mohamed K.**  
Emeritus Distinguished Professor; Ph.D., University  
of Missouri. *UNLV Emeritus 1968-1994.*



## Doctor of Philosophy - Biological Sciences

### Plan Description

The School of Life Sciences (SoLS) offers a Ph.D. program in Cell and Molecular Biology, Ecology and Evolutionary Biology, Integrative Physiology, and Microbiology. This degree is research intensive and is designed to prepare students for careers in academia, government, or industry. Students complete a minimum of 60 credit hours from a list of core and approved courses within their section. In addition, students are typically a Teaching Assistant (TA) for at least one semester. It is expected that students will first-author at least one peer-reviewed journal article.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applications for fall admission that are completed by the posted deadline will be given priority for state-funded graduate assistantships. Admission is based on a combination of criteria that may differ from one year to another, however, most successful applicants have a minimum of a 3.0 undergraduate grade point average (junior and senior years) and score in the upper 50th percentile on all sections of the GRE. Decisions for fall applicants will be made by April 1 if not sooner.

Applications are not considered complete unless they contain:

1. A completed SoLS application form.
2. A completed Graduate College Application with Official transcripts and three Letters of Recommendation.
3. Official GRE score report; subject GREs are not required.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Post-Bachelor's - Cellular and Molecular Biology Track**

Total Credits Required: 60

Course Requirements

#### **Required Course – Credit: 1**

BIOL 701 - Ethics in Scientific Research

#### **Core Courses – Credits: 9**

Complete 9 credits from the following list of courses:

BIOL 607 - Molecular Biology

BIOL 625 - Genomics

BIOL 645 - Cell Physiology

CHEM 772 - Nucleic Acid Chemistry

#### **Didactic Courses – Credits: 9**

Complete 9 credits of advisor-approved didactic courses.

#### **Seminar Course – Credits: 6**

Complete 6 credits from any combination of the following courses:

BIOL 793A-D - Advanced Topics in Life Sciences

BIOL 796 A-D - Graduate Seminar

#### **Elective Courses – Credits: 23**

Complete 23 credits of advisor-approved independent study, colloquium, seminar, or didactic courses.

#### **Dissertation – Credits: 12**

BIOL 799 - Dissertation

## Degree Requirements

1. Complete a minimum of 60 credit hours beyond the undergraduate degree. At least 24 of these hours (excluding dissertation) must be completed at the 700-level.
2. Dissertation credits may be repeated for credit as needed, but only 12 credits may be counted towards the 60 credit hour minimum graduation requirement.
3. Students must complete the specific didactic course work required. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for specific requirements.
4. Students may request a maximum of 15 graduate credits taken at UNLV prior to admission into SoLS's Graduate Program to be counted towards the 30 credit hour minimum graduation requirement, provided that those credits were not used to fulfill undergraduate requirements and that a minimum grade of "B" (3.00) was earned in each course.
5. Students should register for at least 9 credits each semester if they are receiving financial support from the School; otherwise they must register for at least 6 credits each semester. Students working on their dissertation must register for at least 3 credits each semester (excluding summer) until the Dissertation is completed and given final approval.
6. Students must confer with their Dissertation Advisor prior to enrollment in their first semester. The Advisor will assist with designing an initial graduate degree program (i.e., an outline of the courses that the student will complete for the degree), engage in discussions about possible research directions, and introduce the student to the personnel and resources of the School of Life Sciences.
7. The student must form an Advisory Committee before the department's posted deadline. This Committee will be composed by the Dissertation Advisor (who will serve as the Committee Chair), two members of SoLS's Graduate Faculty, and a Graduate Faculty Representative from UNLV (outside of SoLS). Students are encouraged to include a fifth Committee member who is an expert on the student's field of research. This fifth Committee member can have an academic affiliation outside of UNLV. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for specific requirements. Please see Graduate College policy for committee appointment guidelines.
8. Students must meet with their Advisory Committee at least once every year (i.e., from January to October), and a written report of this meeting must be submitted to SoLS's Graduate Operations Committee by November 1.
9. The Advisory Committee will review the student's past academic background and, taking into consideration the student's research interests, determine his/her definitive graduate degree program.
10. Students must comply with the deadlines indicated in SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for submitting required paperwork to the Graduate College.
11. Students must take the comprehensive examination before the beginning of their sixth semester of residency in the Graduate Program.
  - a. The exam must be held at least three (3) weeks before the last day of instruction of any given term.
  - b. The exam will include both a written and an oral component, and will assess whether the student has reached the appropriate level of knowledge and analytical skills necessary for his/her field of study.
  - c. The examination is developed or administered by the Doctoral Advisory Committee or an ad hoc Committee composed of Graduate Faculty within the Section to which the student belongs.
  - d. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for

information on the possible outcomes of the exam. Students who fail to pass the exam within the specified timeline will be placed on academic probation and will be allowed one retake of the exam.

- e. Failure to pass the retake or meet the requirements of academic probation will result in separation.
12. Doctoral students are advanced to candidacy after passing their comprehensive examination. Specific curricular requirements for each SoLS Section are described in detail in SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html>.
13. Each doctoral student should teach for a minimum of two semesters in the undergraduate curriculum of the School of Life Sciences. During that time the student will receive a Graduate Teaching Assistantship.
14. A student will be placed on academic probation if a minimum 3.00 grade point average is not maintained in all work taken as part of the graduate degree program. A grade of "C+" or less in two graduate-level classes will cause a student to be placed on academic probation. Failure to meet the requirements of academic probation will result in separation.
15. The Ph.D. candidate will present a seminar on his/her dissertation work that is open to all interested parties, including the general public. This public seminar will be widely advertised at least seven (7) days before it takes place, and will be followed by an oral defense of the dissertation research before the Advisory Committee and any other Graduate Faculty member who wishes to attend.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 2 Requirements: Post-Bachelor's - Ecology and Evolutionary Biology Track**

Total Credits Required: 60

#### Course Requirements

##### **Required Course – Credit: 1**

BIOL 701 - Ethics in Scientific Research

##### **Didactic Courses – Credits: 18**

Complete 18 credits of advisor-approved didactic courses.

##### **Seminar Course – Credits: 6**

Complete 6 credits from any combination of the following courses:

BIOL 793A-D - Advanced Topics in Life Sciences  
BIOL 796 A-D - Graduate Seminar

##### **Elective Courses – Credits: 23**

Complete 23 credits of advisor-approved independent study, colloquium, seminar, or didactic courses.

##### **Dissertation – Credits: 12**

BIOL 799 - Dissertation

#### Degree Requirements

1. Complete a minimum of 60 credit hours beyond the undergraduate degree. At least 24 of these hours (excluding dissertation) must be completed at the 700-level.
2. Dissertation credits may be repeated for credit as needed, but only 12 credits may be counted towards the 60 credit hour minimum graduation requirement.
3. Students must complete the specific didactic course work required. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for specific requirements.
4. Students may request a maximum of 15 graduate credits taken at UNLV prior to admission into SoLS's Graduate Program to be counted towards the 30 credit hour minimum graduation requirement, provided that those credits were not used to fulfill undergraduate requirements and that a

- minimum grade of "B" (3.00) was earned in each course.
5. Students should register for at least 9 credits each semester if they are receiving financial support from the School; otherwise they must register for at least 6 credits each semester. Students working on their dissertation must register for at least 3 credits each semester (excluding summer) until the Dissertation is completed and given final approval.
  6. Students must confer with their Dissertation Advisor prior to enrollment in their first semester. The Advisor will assist with designing an initial graduate degree program (i.e., an outline of the courses that the student will complete for the degree), engage in discussions about possible research directions, and introduce the student to the personnel and resources of the School of Life Sciences.
  7. The student must form an Advisory Committee before the department's posted deadline. This Committee will be composed by the Dissertation Advisor (who will serve as the Committee Chair), two members of SoLS's Graduate Faculty, and a Graduate Faculty Representative from UNLV (outside of SoLS). Students are encouraged to include a fifth Committee member who is an expert on the student's field of research. This fifth Committee member can have an academic affiliation outside of UNLV. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for specific requirements. Please see Graduate College policy for committee appointment guidelines.
  8. Students must meet with their Advisory Committee at least once every year (i.e., from January to October), and a written report of this meeting must be submitted to SoLS's Graduate Operations Committee by November 1.
  9. The Advisory Committee will review the student's past academic background and, taking into consideration the student's research interests, determine his/her definitive graduate degree program.
  10. Students must comply with the deadlines indicated in SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for submitting required paperwork to the Graduate College.
  11. Students must take the comprehensive examination before the beginning of their sixth semester of residency in the Graduate Program.
    - a. The exam must be held at least three (3) weeks before the last day of instruction of any given term.
    - b. The exam will include both a written and an oral component, and will assess whether the student has reached the appropriate level of knowledge and analytical skills necessary for his/her field of study.
    - c. The examination is developed or administered by the Doctoral Advisory Committee or an ad hoc Committee composed of Graduate Faculty within the Section to which the student belongs.
    - d. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for information on the possible outcomes of the exam. Students who fail to pass the exam within the specified timeline will be placed on academic probation and will be allowed one retake of the exam.
    - e. Failure to pass the retake or meet the requirements of academic probation will result in separation.
  12. Doctoral students are advanced to candidacy after passing their comprehensive examination. Specific curricular requirements for each SoLS Section are described in detail in SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html>.
  13. Each doctoral student should teach for a minimum of two semesters in the undergraduate curriculum of the School of Life Sciences. During that time the student

will receive a Graduate Teaching Assistantship.

14. A student will be placed on academic probation if a minimum 3.00 grade point average is not maintained in all work taken as part of the graduate degree program. A grade of "C+" or less in two graduate-level classes will cause a student to be placed on academic probation. Failure to meet the requirements of academic probation will result in separation.
15. The Ph.D. candidate will present a seminar on his/her dissertation work that is open to all interested parties, including the general public. This public seminar will be widely advertised at least seven (7) days before it takes place, and will be followed by an oral defense of the dissertation research before the Advisory Committee and any other Graduate Faculty member who wishes to attend.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 3 Requirements: Post-Bachelor's - Integrative Physiology Track**

Total Credits Required: 60

#### Course Requirements

#### **Required Course – Credit: 1**

BIOL 701 - Ethics in Scientific Research

#### **Didactic Courses – Credits: 18**

Complete 18 credits of advisor-approved didactic courses.

#### **Seminar Course – Credits: 6**

Complete 6 credits from any combination of the following courses:

BIOL 793A-D - Advanced Topics in Life Sciences  
BIOL 796 A-D - Graduate Seminar

#### **Elective Courses – Credits: 23**

Complete 23 credits of advisor-approved independent study, colloquium, seminar, or didactic courses.

#### **Dissertation – Credits: 12**

BIOL 799 - Dissertation

#### Degree Requirements

1. Complete a minimum of 60 credit hours beyond the undergraduate degree. At least 24 of these hours (excluding dissertation) must be completed at the 700-level.
2. Dissertation credits may be repeated for credit as needed, but only 12 credits may be counted towards the 60 credit hour minimum graduation requirement.
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6. Students must confer with their Dissertation Advisor prior to enrollment in their first semester. The Advisor will assist with designing an initial graduate degree program (i.e., an outline of the courses that the student will complete for the degree), engage in discussions about possible research directions, and introduce the student to the personnel and resources of the School of Life Sciences.

7. The student must form an Advisory Committee before the department's posted deadline. This Committee will be composed by the Dissertation Advisor (who will serve as the Committee Chair), two members of SoLS's Graduate Faculty, and a Graduate Faculty Representative from UNLV (outside of SoLS). Students are encouraged to include a fifth Committee member who is an expert on the student's field of research. This fifth Committee member can have an academic affiliation outside of UNLV. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for specific requirements. Please see Graduate College policy for committee appointment guidelines.
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11. Students must take the comprehensive examination before the beginning of their sixth semester of residency in the Graduate Program.
  - a. The exam must be held at least three (3) weeks before the last day of instruction of any given term.
  - b. The exam will include both a written and an oral component, and will assess whether the student has reached the appropriate level of knowledge and analytical skills necessary for his/her field of study.
  - c. The examination is developed or administered by the Doctoral Advisory Committee or an ad hoc Committee composed of Graduate Faculty within the Section to which the student belongs.
- d. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for information on the possible outcomes of the exam. Students who fail to pass the exam within the specified timeline will be placed on academic probation and will be allowed one retake of the exam.
- e. Failure to pass the retake or meet the requirements of academic probation will result in separation.
12. Doctoral students are advanced to candidacy after passing their comprehensive examination. Specific curricular requirements for each SoLS Section are described in detail in SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html>.
13. Each doctoral student should teach for a minimum of two semesters in the undergraduate curriculum of the School of Life Sciences. During that time the student will receive a Graduate Teaching Assistantship.
14. A student will be placed on academic probation if a minimum 3.00 grade point average is not maintained in all work taken as part of the graduate degree program. A grade of "C+" or less in two graduate-level classes will cause a student to be placed on academic probation. Failure to meet the requirements of academic probation will result in separation.
15. The Ph.D. candidate will present a seminar on his/her dissertation work that is open to all interested parties, including the general public. This public seminar will be widely advertised at least seven (7) days before it takes place, and will be followed by an oral defense of the dissertation research before the Advisory Committee and any other Graduate Faculty member who wishes to attend.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 4 Requirements: Post-Bachelor's - Microbiology Track**

Total Credits Required: 60

Course Requirements

##### **Required Course – Credit: 1**

BIOL 701 - Ethics in Scientific Research

##### **Core Courses – Credits: 3**

Complete 3 credits from the following list of courses:

BIOL 609 - Virology

BIOL 618 - Microbial Ecology

BIOL 653 - Immunology

BIOL 660 - Microbial Physiology

BIOL 664 - Bacterial Pathogenesis

BIOL 685 - Microbial Genetics

##### **Didactic Courses – Credits: 15**

Complete 15 credits of advisor-approved didactic courses.

##### **Seminar Course – Credits: 6**

Complete 6 credits from any combination of the following courses:

BIOL 793A-D - Advanced Topics in Life Sciences

BIOL 796 A-D - Graduate Seminar

##### **Elective Courses – Credits: 23**

Complete 23 credits of advisor-approved independent study, colloquium, seminar, or didactic courses.

##### **Dissertation – Credits: 12**

BIOL 799 - Dissertation

Degree Requirements

1. Complete a minimum of 60 credit hours beyond the undergraduate degree. At least 24 of these hours (excluding dissertation) must be completed at the 700-level.

2. Dissertation credits may be repeated for credit as needed, but only 12 credits may be counted towards the 60 credit hour minimum graduation requirement.
3. Students must complete the specific didactic course work required. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for specific requirements.
4. Students may request a maximum of 15 graduate credits taken at UNLV prior to admission into SoLS's Graduate Program to be counted towards the 30 credit hour minimum graduation requirement, provided that those credits were not used to fulfill undergraduate requirements and that a minimum grade of "B" (3.00) was earned in each course.
5. Students should register for at least 9 credits each semester if they are receiving financial support from the School; otherwise they must register for at least 6 credits each semester. Students working on their dissertation must register for at least 3 credits each semester (excluding summer) until the Dissertation is completed and given final approval.
6. Students must confer with their Dissertation Advisor prior to enrollment in their first semester. The Advisor will assist with designing an initial graduate degree program (i.e., an outline of the courses that the student will complete for the degree), engage in discussions about possible research directions, and introduce the student to the personnel and resources of the School of Life Sciences.
7. The student must form an Advisory Committee before the department's posted deadline. This Committee will be composed by the Dissertation Advisor (who will serve as the Committee Chair), two members of SoLS's Graduate Faculty, and a Graduate Faculty Representative from UNLV (outside of SoLS). Students are encouraged to include a fifth Committee member who is an expert on the student's field of research. This fifth Committee member can have an academic affiliation outside of UNLV. See

SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for specific requirements. Please see Graduate College policy for committee appointment guidelines.

8. Students must meet with their Advisory Committee at least once every year (i.e., from January to October), and a written report of this meeting must be submitted to SoLS's Graduate Operations Committee by November 1.
9. The Advisory Committee will review the student's past academic background and, taking into consideration the student's research interests, determine his/her definitive graduate degree program.
10. Students must comply with the deadlines indicated in SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for submitting required paperwork to the Graduate College.
11. Students must take the comprehensive examination before the beginning of their sixth semester of residency in the Graduate Program.
  - a. The exam must be held at least three (3) weeks before the last day of instruction of any given term.
  - b. The exam will include both a written and an oral component, and will assess whether the student has reached the appropriate level of knowledge and analytical skills necessary for his/her field of study.
  - c. The examination is developed or administered by the Doctoral Advisory Committee or an ad hoc Committee composed of Graduate Faculty within the Section to which the student belongs.
  - d. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for information on the possible outcomes of the exam. Students who fail to pass the exam within the specified timeline will be placed on academic probation and

will be allowed one retake of the exam.

- e. Failure to pass the retake or meet the requirements of academic probation will result in separation.
12. Doctoral students are advanced to candidacy after passing their comprehensive examination. Specific curricular requirements for each SoLS Section are described in detail in SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html>.
13. Each doctoral student should teach for a minimum of two semesters in the undergraduate curriculum of the School of Life Sciences. During that time the student will receive a Graduate Teaching Assistantship.
14. A student will be placed on academic probation if a minimum 3.00 grade point average is not maintained in all work taken as part of the graduate degree program. A grade of "C+" or less in two graduate-level classes will cause a student to be placed on academic probation. Failure to meet the requirements of academic probation will result in separation.
15. The Ph.D. candidate will present a seminar on his/her dissertation work that is open to all interested parties, including the general public. This public seminar will be widely advertised at least seven (7) days before it takes place, and will be followed by an oral defense of the dissertation research before the Advisory Committee and any other Graduate Faculty member who wishes to attend.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 5 Requirements: Post-Master's Track**

Total Credits Required: 30

Course Requirements

**Required Course – Credit: 1**



BIOL 701 - Ethics in Scientific Research

**Seminar Course – Credits: 6**

Complete 6 credits from any combination of the following courses:

BIOL 793A-D - Advanced Topics in Life Sciences

BIOL 796 A-D - Graduate Seminar

**Didactic Courses – Credits: 11**

Complete 11 credits of advisor-approved didactic courses.

**Dissertation – Credits: 12**

BIOL 799 - Dissertation

**Degree Requirements**

1. Complete a minimum of 30 credit hours when entering the program with a master's degree from another institution. At least 9 of these hours must be completed at the 700-level.
2. Dissertation may be repeated for credit as needed, but only 12 credits may be counted towards the 30 credit hour minimum graduation requirement.
3. Students must complete the didactic course work required by the Section (e.g., Ecology and Evolutionary Biology, Cell and Molecular Biology, Microbiology, and Integrative Physiology) to which they belong. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for specific requirements.
4. Students may request a maximum of 15 graduate credits taken at UNLV prior to admission into SoLS's Graduate Program to be counted towards the 30 credit hour minimum graduation requirement, provided that those credits were not used to fulfill undergraduate requirements and that a minimum grade of "B" (3.00) was earned in each course.
5. Students should register for at least nine (9) credits each semester if they are receiving financial support from the School; otherwise they must register for at least six (6) credits

each semester. Students working on their dissertation must register for at least three (3) credits each semester (excluding summer) until the Dissertation is completed and given final approval.

6. Students must confer with their Dissertation Advisor prior to enrollment in their first semester. The Advisor will assist with designing an initial graduate degree program (i.e., an outline of the courses that the student will complete for the degree), engage in discussions about possible research directions, and introduce the student to the personnel and resources of the School of Life Sciences.
7. The student must form an Advisory Committee before the department's posted deadline. This Committee will be composed by the Dissertation Advisor (who will serve as the Committee Chair), two members of SoLS's Graduate Faculty, and a Graduate Faculty Representative from UNLV (outside of SoLS). Students are encouraged to include a fifth Committee member who is an expert on the student's field of research. This fifth Committee member can have an academic affiliation outside of UNLV. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for specific requirements. Please see Graduate College policy for committee appointment guidelines.
8. Students must meet with their Advisory Committee at least once every year (i.e., from January to October), and a written report of this meeting must be submitted to SoLS's Graduate Operations Committee by November 1.
9. The Advisory Committee will review the student's past academic background and, taking into consideration the student's research interests, determine his/her definitive graduate degree program.
10. Students must comply with the deadlines indicated in SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for submitting required paperwork to the Graduate College.

11. Students must take the comprehensive examination before the beginning of their sixth semester of residency in the Graduate Program.
  1. The exam must be held at least three (3) weeks before the last day of instruction of any given term.
  2. The exam will include both a written and an oral component, and will assess whether the student has reached the appropriate level of knowledge and analytical skills necessary for his/her field of study.
  3. The examination is developed or administered by the Doctoral Advisory Committee or an ad hoc Committee composed of Graduate Faculty within the Section to which the student belongs.
  4. See SoLS's Graduate Student Handbook  
<http://sols.unlv.edu/current.html> for information on the possible outcomes of the exam. Students who fail to pass the exam within the specified timeline will be placed on academic probation and will be allowed one retake of the exam.
  5. Failure to pass the retake or meet the requirements of academic probation will result in separation.
12. Doctoral students are advanced to candidacy after passing their comprehensive examination. Specific curricular requirements for each SoLS Section are described in detail in SoLS's Graduate Student Handbook  
<http://sols.unlv.edu/current.html>.
13. Each doctoral student should teach for a minimum of two semesters in the undergraduate curriculum of the School of Life Sciences. During that time the student will receive a Graduate Teaching Assistantship.
14. A student will be placed on academic probation if a minimum 3.00 grade point average is not maintained in all work taken as part of the graduate degree program. A

grade of "C+" or less in two graduate-level classes will cause a student to be placed on academic probation. Failure to meet the requirements of academic probation will result in separation.

15. The Ph.D. candidate will present a seminar on his/her dissertation work that is open to all interested parties, including the general public. This public seminar will be widely advertised at least seven (7) days before it takes place, and will be followed by an oral defense of the dissertation research before the Advisory Committee and any other Graduate Faculty member who wishes to attend.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Master of Science - Biological Sciences

### Plan Description

The School of Life Sciences offers an M.S. program with concentrations in Cell and Molecular Biology, Ecology and Evolutionary Biology, Integrative Physiology, and Microbiology. This degree is less research intensive than the Ph.D. and is designed to prepare students for a diverse set of science-related careers.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applications for fall admission that are completed by the posted deadline will be given priority for state-funded graduate assistantships. Admission is based on a combination of criteria that may differ from one year to another, however, most successful applicants have a minimum of a 3.0 undergraduate grade point average (junior and senior years) and score in the upper 50th percentile on all sections of the GRE. Decisions for fall applicants will be made by April 1 if not sooner.

Please note that the M.S. and Ph.D. degrees from the School of Life Sciences (SoLS) are research degrees. Applicants must look through the faculty web pages to identify one or more potential mentors as part of their application. They are required to contact these faculty directly regarding the possibility of joining their lab.

Applications are not considered complete unless they contain:

1. A completed SoLS application form.
2. A completed Graduate College Application with Official transcripts and two Letters of Recommendation.

3. Official GRE score report; subject GREs are not required.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Cellular and Molecular Biology Track**

Total Credits Required: 30

Course Requirements

#### **Required Course – Credits: 1**

BIOL 701 - Ethics in Scientific Research

#### **Core Courses – Credits: 6**

Complete 6 credits from the following list of courses:

BIOL 607 - Molecular Biology

BIOL 625 - Genomics

BIOL 645 - Cell Physiology

CHEM 772 - Nucleic Acid Chemistry

#### **Didactic Course – Credits: 3**

Complete 3 credits of an advisor-approved didactic course.

#### **Seminar Course – Credits: 6**

Complete 6 credits from any combination of the following courses:

BIOL 793A-D - Advanced Topics in Life Sciences

BIOL 796 A-D - Graduate Seminar

#### **Elective Courses – Credits: 8**

Complete 8 credits of advisor-approved independent study, colloquium, seminar, core, or didactic courses.

**Thesis – Credits: 6**

BIOL 797 - Thesis

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 2 Requirements: Ecology and Evolutionary Biology Track**

Total Credits Required: 30

Course Requirements

**Required Course – Credits: 1**

BIOL 701 - Ethics in Scientific Research

**Didactic Courses – Credits: 9**

Complete 9 credits of advisor-approved didactic courses.

**Seminar Course – Credits: 6**

Complete 6 credits from any combination of the following courses:

BIOL 793A-D - Advanced Topics in Life Sciences  
BIOL 796 A-D - Graduate Seminar

**Elective Courses – Credits: 8**

Complete 8 credits advisor-approved independent study, colloquium, seminar, or didactic courses.

**Thesis – Credits: 6**

BIOL 797 - Thesis

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 3 Requirements: Integrative Physiology Track**

Total Credits Required: 30

Course Requirements

**Required Course – Credits: 1**

BIOL 701 - Ethics in Scientific Research

**Didactic Courses – Credits: 12**

Complete 12 credits of advisor-approved didactic courses.

**Seminar Course – Credits: 6**

Complete 6 credits from any combination of the following courses:

BIOL 793A-D - Advanced Topics in Life Sciences  
BIOL 796 A-D - Graduate Seminar

**Elective Courses – Credits: 5**

Complete 5 credits of advisor-approved independent study, colloquium, seminar, or didactic courses.

**Thesis – Credits: 6**

BIOL 797 - Thesis

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 4 Requirements: Microbiology Track**

Total Credits Required: 30

Course Requirements

**Required Course – Credits: 1**

BIOL 701 - Ethics in Scientific Research

### **Core Courses – Credits: 3**

Complete one of following courses:

BIOL 609 - Virology  
BIOL 618 - Microbial Ecology  
BIOL 653 - Immunology  
BIOL 660 - Microbial Physiology  
BIOL 664 - Bacterial Pathogenesis  
BIOL 685 - Microbial Genetics

### **Didactic Courses – Credits: 6**

Complete 6 credits of advisor-approved didactic courses.

### **Seminar Course – Credits: 6**

Complete 6 credits from any combination of the following courses:

BIOL 793A-D - Advanced Topics in Life Sciences  
BIOL 796 A-D - Graduate Seminar

### **Elective Courses – Credits: 8**

Complete 8 credits of independent study, colloquium, seminar, core, or didactic courses.

### **Thesis – Credits: 6**

BIOL 797 - Thesis

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Degree Requirements**

1. Complete a minimum of 30 credit hours beyond the undergraduate degree. At least 18 of these hours must be completed at the 700-level.
2. Students may request a maximum of 15 graduate credits taken at UNLV prior to admission into SoLS's Graduate Program to be counted towards the 30 credit hour minimum graduation requirement, provided

that those credits were not used to fulfill undergraduate requirements and that a minimum grade of "B" (3.00) was earned in each course.

3. At least 50 percent of the total credits required to complete the Master's degree must be earned at UNLV after admission into the Graduate Program.
4. Students should register for at least nine (9) credits each semester if they are receiving financial support from SoLS; otherwise they must register for at least six (6) credits each semester. Students working on their thesis must register for at least three (3) credits each semester (excluding summer) until the Master's Thesis is completed and given final approval.
5. Students must confer with their Thesis Advisor prior to enrollment in their first semester. The Advisor will assist with designing an initial graduate degree program (i.e., an outline of the courses that the student will complete for the degree), engage in discussions about possible research directions, and introduce the student to the personnel and resources of the School of Life Sciences.
6. Students must form an Advisory Committee before the department's posted deadline. This Committee will be composed by the Thesis Advisor (who will serve as the Committee Chair), two members of SoLS's Graduate Faculty, and a Graduate Faculty Representative from UNLV (but outside of SoLS). An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
7. Students must meet with their Advisory Committee at least once every year (i.e., from January to October), and a written report of this meeting must be submitted to SoLS's Graduate Operations Committee by November 1.
8. The Advisory Committee will review the student's past academic background and, taking into consideration the student's

research interests, determine his/her definitive graduate degree program.

9. Students must comply with the deadlines indicated in SoLS's Graduate Student Handbook  
<http://sols.unlv.edu/gradhandbook.html> for submitting required paperwork to the Graduate College.
10. A student will be placed on academic probation if a minimum 3.00 grade point average is not maintained in all work taken as part of the graduate degree program. A grade of "C+" or less in two graduate-level classes will cause a student to be placed on academic probation.
11. The M.S. candidate will present a seminar on his/her thesis work that is open to all interested parties, including the general public. This public seminar will be widely advertised at least seven (7) days before it takes place, and will be followed by an oral defense of the thesis research before the Advisory Committee and any other Graduate Faculty member who wishes to attend.
12. Students are expected to complete all the requirements for the Master's degree in 2-3 years.

### Plan Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
1. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
2. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### School of Life Sciences Courses

#### BIOL 602 - Great Biological Discoveries

Credits 3

Students will critically examine ~25 of the most important biological discoveries of all time and learn to examine data, develop hypotheses, identify valid conclusions, challenge interpretations of results, and discuss significance. The course will help students identify the origins of biological fields and develop a "big picture" view of biology.

**Prerequisites** Consent of instructor.

#### BIOL 604 - Principles of Neurobiology

Credits 3

**Notes** This course is crosslisted with BIOL 404. Credit at the 600 level requires additional work.

#### BIOL 607 - Molecular Biology

Credits 3

Introductory molecular biology. Study of genes and their activities at the molecular level, including transcription, translation, DNA replication, and recombination. Concepts of molecular biology presented along with experimental strategies and data that led to those concepts.

**Notes** This course is crosslisted with BIOL 405. Credit at the 600 level requires additional work.

#### BIOL 609 - Virology

Systematic examination of animal, plant, and bacterial viruses including their structure and genome organization, their reproduction and assembly, and their effects on host organisms.

**Notes** This course is crosslisted with BIOL 409. Credit at the 600-level requires additional work.

#### BIOL 611 - Molecular Evolution

Graduate credit may be obtained for courses designated 600 or above. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

**Notes** Credit at the 600 level normally requires additional work.

#### BIOL 616 - Bioinformatics

Credits 3

This class covers basic principles in bioinformatics,

as well as Perl programming, algorithms, databases, and use of many bioinformatics resources. In class "laboratory" exercises reinforce these topics with hands-on activities and individual/group learning exercises. The class emphasizes a conceptual and practical understanding of bioinformatics applied to biological systems at the molecular, cellular, and organismal level.

**Prerequisites** Consent of instructor.

#### BIOL 618 - Microbial Ecology

Study of microbes as individuals, populations, and communities in freshwater, marine, and terrestrial environments. Topics such as nutrient cycling, biodegradation, and biotechnology discussed from an ecological standpoint.

**Notes** This course is crosslisted with BIOL 418. Credit at the 600-level requires additional work.

#### BIOL 622 - Taxonomy of Vascular Plants

Study of the evolutionary relationships of the principal orders, families and genera; systems of classification; collection and identification of local flora.

**Notes** This course is crosslisted with BIOL 422. Credit at the 600-level requires additional work.

#### BIOL 625 - Genomics

Study of the sequencing, assembling and annotating of genomes. Examination of new approaches that integrate genetics, molecular biology, and computer sciences to answer biological questions in novel ways. Applications of genomics, proteomic and bioinformatic technologies in medical researches.

**Notes** This course is crosslisted with BIOL 425. Credit at the 600-level requires additional work.

#### BIOL 626 - Plant Anatomy

Study of the basic structure of plant organs and tissues, particularly with regard to relationships between structure and function.

**Notes** This course is crosslisted with BIOL 426. Credit at the 600-level requires additional work.

#### BIOL 631 - Ichthyology

Study of biology of fishes, including morphology, physiology, ecology, and evolution. Emphasis on local fish, field work with state and federal agency biologists.

**Notes** This course is crosslisted with BIOL 431. Credit at the 600-level requires additional work.

#### BIOL 632 - Herpetology

Introduction to various aspects of the ecology, behavior, and evolution of recent amphibians and non-avian reptiles. In the laboratory students will learn diagnostic characteristics, some functional attributes, and aspects of the natural history of recent amphibians and non-avian reptiles, particularly of species from southwestern North America.

**Notes** This course is crosslisted with BIOL 432. Credit at the 600-level requires additional work.

#### BIOL 633 - Ornithology

Principles of avian biology and evolution.

**Notes** This course is crosslisted with BIOL 433. Credit at the 600-level requires additional work.

#### BIOL 634 - Mammalogy

Credits 4

Study of mammalian biology, evolution, and ecology, with attention to issues in mammal conservation biology. Three hours lecture and three hours laboratory with possible weekend and overnight field trips.

**Notes** This course is crosslisted with BIOL 434. Credit at the 600 level requires additional work.

#### BIOL 638 - Soil Plant Water Relations in Arid Environments

Credits 3

The class will cover soil plant water relationships relevant to arid environments under limited water resources. Topics that will be discussed in detail include; the hydrologic cycle, water properties, soil physical and chemical properties, environmental demand, plant stress associated with drought and salinity, water quality and irrigation management as it relates to plant growth and productivity. The class will be taught in a lecture/lab format.

**Notes** This course is crosslisted with BIOL 438. Credit at the 600-level requires additional work.

**Prerequisites** CHEM 121, CHEM 122, and BIOL 197 or equivalents.

#### BIOL 641 - Field Ecology

Introduction to ecological research. Weekly field projects emphasize population biology, interactions among species, and ecosystem processes.

**Notes** This course is crosslisted with BIOL 441.  
Credit at the 600-level requires additional work.

BIOL 642 - Principles of Plant Physiology  
Credits 4

Introduction to the basic physiological processes in plants: metabolism, nutrition, growth, and development.

**Notes** This course is crosslisted with BIOL 442.  
Credit at the 600 level requires additional work.

BIOL 644 - Principles of Plant Ecology  
Credits 3

Introduction to the ecology of wild plants, particularly structure, ecology of populations, interactions of plants with their environment and other organisms, and survey of the major global vegetation types.

**Notes** This course is crosslisted with BIOL 444.  
Credit at the 600 level requires additional work.

BIOL 645 - Cell Physiology  
Credits 3

Cell physiology provides an understanding of the basic processes of eukaryotic cells and their relationship to cellular ultrastructure.

**Notes** This course is crosslisted with BIOL 445.  
Credit at the 600 level requires additional work.

**Prerequisites** Consent of instructor.

BIOL 647 - Comparative Animal Physiology  
Credits 4

Comparative physiology provides a detailed understanding of the diverse array of physiological systems evolved to allow animals to function in various environments. The comparative approach is used to understand physiological adaptations to various environments and the evolution of physiological systems.

**Notes** This course is crosslisted with BIOL 447.  
Credit at the 600 level requires additional work.

BIOL 648 - Endocrinology  
Credits 3

Survey of the structure and function of vertebrate endocrine systems, with emphasis on the biochemical basis of hormone action and the role of cell communication in endocrine physiology.

**Notes** This course is crosslisted with BIOL 414.  
Credit at the 600 level requires additional work.

BIOL 651 - Comparative Vertebrate Anatomy  
Laboratory  
Credits 2

The companion laboratory course of BIOL 655. Hands-on dissection of specimens representing major vertebrate groups. Numerous demonstration specimens sample the diversity of fishes, amphibians, and amniotes. Review of fossil vertebrates with emphasis on phylogenetic relationships.

**Notes** This course is crosslisted with BIOL 451.  
Credit at the 600-level requires additional work.

**Prerequisites** Biology degree or consent of instructor.

**Corequisite** BIOL 655

BIOL 653 - Immunology  
Credits 3

Study of the immune response, cell-mediated and humoral. Topics include the diversity of antibodies and antigen receptors, evolution of immunity, cell-cell interactions, importance of major histocompatibility complex immune regulation, and immunity to microorganisms.

**Notes** This course is crosslisted with BIOL 453.  
Credit at the 600-level requires additional work.

BIOL 655 - Comparative Vertebrate Anatomy and Biomechanics  
Credits 3

Examines structure-function relationships in the context of vertebrate evolution. Tissues and structures of the integumentary, skeletal, and muscular system are emphasized. Biomechanics of materials, structures, and movements are related to adaptations of vertebrates to life in their physical worlds.

**Prerequisites** Biology degree or consent of instructor.

**Corequisite** BIOL 651

BIOL 660 - Microbial Physiology  
Credits 4

Exploration of the major aspects of microbial physiology, including structure and growth of bacteria, generation of ATP and intermediary metabolism, synthesis of macromolecules and cellular components, and coordination of intracellular activities.



**Notes** This course is crosslisted with BIOL 460.  
Credit at the 600 level requires additional work.

BIOL 664 - Bacterial Pathogenesis  
Credits 3

Addresses the molecular mechanisms by which bacterial pathogens cause disease. Basic principles of bacterial pathogenesis will be considered before a survey of bacterial pathogens and their specific virulence factors is conducted. Includes aspects of bacterial genetics, physiology, immunology, and the cell biology of host-parasite interactions.

**Notes** This course is crosslisted with BIOL 464.  
Credit at the 600 level requires additional work.

**Prerequisites** BIOL 351 or equivalent microbiology class.

BIOL 665 - Vertebrate Embryology  
Credits 4

Development of vertebrates, with emphasis on amphibians, birds, and mammals. Considerations of gametogenesis, fertilization, cleavage, early morphogenesis, and organogenesis included.

**Notes** This course is crosslisted with BIOL 465.  
Credit at the 600-level requires additional work.

BIOL 668 - Histology  
Credits 4

Microscopic structure and function of vertebrate tissues with emphasis on mammals.

**Notes** This course is crosslisted with BIOL 468.  
Credit at the 600-level requires additional work.

BIOL 670 - Topics in Applied Microbiology  
Credits 3

Applications may include bioremediation, food, agriculture, pharmaceuticals, vaccine development, water treatment, or genetic engineering. Presentation and discussion of current literature. Topics published in the class schedule. Maximum of two different topics may be selected for a total of six credits.

**Notes** This course is crosslisted with BIOL 470.  
Credit at the 600 level requires additional work.

BIOL 671 - Aquatic Ecology  
Credits 3

Principles of aquatic ecology including physical, chemical and biotic attributes - and their interactions - relating to both freshwater and marine systems.

**Notes** This course is crosslisted with BIOL 471.  
Credit at the 600 level requires additional work.

BIOL 672 - Limnology  
Credits 4

**Notes** Credit at the 600 level requires additional work.

BIOL 680 - Introduction to Biological Modeling  
Credits 3

Introduction to the modeling of biological systems and processes through the use of computers.

**Notes** This course is crosslisted with BIOL 480.  
Credit at the 600-level requires additional work.

BIOL 685 - Microbial Genetics  
Credits 4

Examines genetics of prokaryotic microorganisms, including induction of mutations and selection of mutants, alternative processes of genetic exchange and gene mapping, and gene organization and regulation.

**Notes** This course is crosslisted with BIOL 485.  
Credit at the 600-level requires additional work.

BIOL 687 - Principles of Systematics  
Credits 3

Principles and applications of methods used to reconstruct history and biotic diversity among genes, species, and higher taxa. Considers several approaches to tree construction and significance of phylogenetic history within the context of evolution, biogeography, and conservation biology.

**Notes** This course is crosslisted with BIOL 487.  
Credit at the 600-level requires additional work.

BIOL 689 - Developmental Genetics  
Credits 3

Topics in molecular genetics of developmental processes explored through current literature.

**Notes** This course is crosslisted with BIOL 489.  
Credit at the 600 level requires additional work.

BIOL 690 - Biogeography  
Credits 3

Study of distributional patterns of plant and animal groups, including consideration of theories and principles, derived from a variety of disciplines, related to those patterns.

**Notes** This course is crosslisted with BIOL 490. Credit at the 600 level requires additional work.

BIOL 701 - Ethics in Scientific Research  
Credits 2

Examination of ethical issues in scientific research, including research design, planning, and support; data manipulation and accessibility; publication practices and authorship; peer review; and scientific misconduct.

**Prerequisites** Graduate standing or consent of instructor

BIOL 703 - Biochemical Genetics  
Credits 3

Detailed study of the structure of nucleic acids and the molecular genetic mechanisms of replication, transcription, and induction and repression of genetic information. Biochemical genetics of gene transfer.

**Prerequisites** BIO 300 and CHEM 471.

BIOL 705 - Secondary Education: Teaching Evolution and the Nature of Science  
Credits 1 – 3

Focus on Science and Creationism and hands-on activities and inquiry-based computer simulations that can be used in classrooms to illustrate evolutionary principles. Workshop taught using scientific methods so educators are well-versed in methods of evolutionary study and principles.

**Notes** Follow up sessions explore implementations of lessons from workshop.

BIOL 711 - Advanced Eukaryotic Genetics  
Credits 3

Focuses on the biology and genetics of common model organisms: *C. elegans*, *Drosophila*, *Arabidopsis*, Zebrafish, and mouse, and their relationship to the biology of human health and agriculture. The goal is help students understand current research topics in functional genetics and genome manipulation.

**Prerequisites** Consent of instructor.

BIOL 714 - Population Genetics  
Credits 3

Examines the interactions of evolutionary processes, such as natural selection, genetic drift, gene flow, and mutation, and effects of these interactions on population differentiation, speciation, and extinction.

Theoretical and empirical approaches to the study of DNA substitutions and quantitative genetic change addressed.

**Prerequisites** MATH 181 and BIO 310 or consent of instructor.

BIOL 722 - Advanced Taxonomy of Vascular Plants  
Credits 3

Identification, classification, and evolutionary relationships of the subfamilies and tribes of the composite, legume, and grass families.

**Notes** Three hours laboratory.

**Prerequisites** BIO 422

BIOL 730A-D - Special Lectures in Life Sciences  
Credits 3

Reserved for formal didactic classes with varying special current topics in different disciplines of life sciences. Lettering system reflects focus on topics specific for each Section within Life Sciences (A = Ecology and Evolution, B = Organismal Physiology, C = Cell and Molecular Biology, D = Microbiology).

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Consent of instructor.

BIOL 742 - Topics in Advanced Plant Physiology  
Credits 2

Advanced treatment of current topics in plant physiology. Topics for consideration selected from one of the three following major subject areas: (a) Water relations, ion balance, and mineral nutrition; (b) Photosynthesis, intermediary metabolism, and plant growth; and (c) Stress physiology. Instructor and students decide which area covered during a given semester.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** BIO 442

BIOL 743 - Ecological Plant Physiology  
Credits 3

Examination of the physiological responses and adaptations of terrestrial plants to their environment. Primary topics covered include microclimate analysis, water relations, gas exchange, nutrient relations, and adaptations to stress. Adaptations of plants from contrasting physical environments emphasized.

**Prerequisites** BIO 340 and BIO 442.

BIOL 745 - Arid Zone Soils

Credits 3

Role soils have in the soil-plant-atmospheric continuum of arid regions, influence of arid zone soils on all aspects of plant growth and development, influence of soil forming factors on the development of arid soils.

**Same as** GEOL 740

**Prerequisites** Consent of instructor.

BIOL 748 - Environmental Physiology

Credits 3

Examination of physiological responses, including adaptation and acclimatization to extreme physical environments. Consideration of desert, tropical, arctic, mountain, and aquatic environments and their physiology, ecological, and phylogenetic implications.

BIOL 763 - Vertebrate Reproductive Biology

Credits 3

Study of vertebrate reproduction at the systematic, organismal and population levels. Individual or group projects.

**Prerequisites** BIOL 350, 448 or 465, and consent of instructor.

BIOL 781 - Population and Evolutionary Ecology

Credits 3

Advanced topics in population growth, population interaction and evolution in ecological systems. Includes reading and class discussion of both theoretical and empirical material with emphasis on individual student analysis and integration.

**Notes** Three hours of lecture and discussion.

**Prerequisites** BIO 340 or equivalent and consent of instructor.

BIOL 783 - Community and Ecosystem Ecology

Credits 3

Readings and evaluation of the highest levels of organization in ecology through: a) exploration of the fundamental concepts of community distributions, structure, organization, and change; and b) analysis of ecosystem-level processes of primary and secondary production and nutrient cycling.

**Prerequisites** BIO 340 or equivalent and consent of instructor.

BIOL 784 - Conservation Biology

Credits 3

Science of scarcity and diversity viewed from the perspective of understanding the causes and consequences of extinction as well as the conditions necessary for maintenance of biotic diversity. Review regional and worldwide developments in this emerging subdiscipline.

**Prerequisites** BIO 340 or consent of instructor.

BIOL 786 - Bioenergetics

Credits 3

Review of primary and secondary productivity and associated topics dealing with ecosystem energetics.

**Notes** Four hours laboratory.

**Prerequisites** Consent of instructor.

BIOL 787 - Research Laboratory Rotation

Credits 1 – 3

Provides an opportunity for newly admitted graduate students to experience the research of Biological Sciences graduate faculty through one-on-one interactions. Gives graduate students the information they need to make informal choices about the lab(s) where they carry out their thesis and dissertation research.

**Notes** May be repeated to a maximum of three credits.

**Grading** S/F grading only.

**Prerequisites** Admission as a regular graduate student in the M.S. or Ph.D. Program.

BIOL 789 - Independent Graduate Study in Life Sciences

Credits 1 – 3

Students use this class to receive research credit related to their thesis or dissertation project prior to registering for BIOL 797 or BIOL 799.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Consent of instructor.

BIOL 790A-D - Research Colloquium in Life Sciences

Credits 1 – 3

Students use this class to present their individual research results to a section-wide audience. Lettering system reflects focus on topics specific for each Section within Life Sciences (A = Ecology and Evolution, B = Organismal Physiology, C = Cell and Molecular Biology, D = Microbiology).

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Consent of instructor.

BIOL 791 - Research Laboratory Discussions in Life Sciences

Credits 1-2

Students present their research and discuss the work of colleagues during formal laboratory meetings with their mentor's research group.

**Notes** May be repeated to a maximum of ten credits.

**Prerequisites** Consent of instructor.

BIOL 792 - Advanced Topics in Cell and Molecular Biology

Credits 1 – 3

Includes papers, oral presentations and discussion of current literature in these fields.

**Notes** Topics announced with each offering. May be repeated to a maximum of twelve credits.

**Prerequisites** Graduate standing and consent of instructor.

BIOL 793A-D - Advanced Topics in Life Sciences

Credits 1 – 2

A seminar-style class where presentations are organized around a common theme. Students present and discuss the related primary literature. Lettering system reflects focus on topics specific for each Section within Life Sciences (A = Ecology and Evolution, B = Organismal Physiology, C = Cell and Molecular Biology, D = Microbiology).

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor.

BIOL 794 - Techniques in Molecular Biology

Credits 3

Introduction to the theory and laboratory methods used in molecular biology research. Topics include the isolation and purification of nucleic acids, restriction digests, cloning, Southern blotting, PCR, DNA sequencing, and electrophoresis.

**Notes** Three to nine laboratory hours per week.

**Prerequisites** Consent of instructor.

BIOL 795 - Teaching Strategies for University Science Courses

Credits 2

Designed for graduate students in the sciences and will prepare you for University-level science teaching, whether pursuing a research-based or

teaching-based faculty position. We explore different learning theories, current research about learning science and applying them to teaching and the development of a personal teaching philosophy.

BIOL 796 A-D - Graduate Seminar

Credits 1 – 2

Instructs students on how to prepare and present seminars on topics of current interest in life sciences. Lettering system reflects focus on topics specific for each Section within Life Sciences (A = Ecology and Evolution, B = Organismal Physiology, C = Cell and Molecular Biology, D = Microbiology).

**Notes** May be repeated to a maximum of ten credits.

**Prerequisites** Graduate standing in biology.

BIOL 797 - Thesis

Credits 3 – 6

**Notes** May be repeated but only six credits applied to the student's program. Enrollment by consent of instructor only.

**Grading** S/F grading only.

BIOL 799 - Dissertation

Credits 3 – 6

Research analysis and writing toward completion of dissertation and subsequent defense.

**Notes** May be repeated but a maximum of only 18 credits may be applied to the degree program.

**Grading** S/F grading only.

**Prerequisites** Graduate standing in the Biology Ph.D. program and consent of instructor.

## Mathematical Sciences

The Department of Mathematical Sciences offers both the Master of Science and Doctor of Philosophy degrees. The M.S. program has areas of concentration in Pure Mathematics, Applied Mathematics, Applied Statistics, and Teaching Mathematics. The Ph.D. program has areas of concentration in Applied Mathematics, Computational Mathematics, Pure Mathematics, and Statistics. Specific disciplines include approximation theory, applied complex analysis, bioinformatics, biostatistics, calculus of variations, combinatorics, control theory, finite fields, graph theory, mathematical education, mathematical modeling, number theory, numerical analysis, partial differential equations, scientific computing, set theory, statistics. Excellent computing facilities are available for classroom studies and research. The Department of Mathematical Sciences, through an active faculty, offers graduate students both an unusual amount of personal attention and a lively research atmosphere. The degree programs are designed to provide students with a strong theoretical background in graduate-level mathematics. Our graduates have been successful in finding employment in industry, government and education.

*Zhijian Wu, Ph.D., Chair*

*Kaushik Ghosh, Ph.D., Graduate Coordinator*

## Mathematical Sciences Faculty

### Chair

#### **Wu, Zhijian**

Professor; B.C. China University of Geosciences; M.S., Peking University; Ph.D., Washington University. *Rebel since 2015.*

### Graduate Coordinator

#### **Ghosh, Kaushik** - Full Graduate Faculty

Associate Professor; B. Stat., Indian Statistical Institute; M.Stat., Indian Statistical Institute; Ph.D., University of California Santa Barbara. *Rebel since 2007.*

### Graduate Faculty

#### **Amei, Amei** - Full Graduate Faculty

Associate Professor; B.S., Inner Mongolia University; M.S., University of Science and Technology of China; Ph.D., Washington University. *Rebel since 2007.*

#### **Ananda, Malwane M.A.** - Full Graduate Faculty

Professor; B.S., University of Sri Jayewardenepura; M.S., Ph.D., Purdue University. *Rebel since 1990.*

#### **Bachman, Gennady** - Full Graduate Faculty

Professor; B.A., Temple University; Ph.D., University of Illinois. *Rebel since 1991.*

#### **Baragar, Arthur** - Full Graduate Faculty

Professor; B.S., University of Alberta; Ph.D., Brown University. *Rebel since 1997.*

#### **Bhatnagar, Satish C.** - Full Graduate Faculty

Professor; B.A. (honor), M.A., Panjab University, India; M.A., Ph.D. Indiana University. *Rebel since 1974.*

#### **Burke, Douglas** - Full Graduate Faculty

Associate Professor; B.S., University of Wisconsin, Madison; M.A., University of California, Berkeley; Ph.D., University of California, Los Angeles. *Rebel since 1994.*

#### **Catlin, Sandra** - Full Graduate Faculty

Associate Professor; B.A., University of California,

Berkeley; M.S., Ph.D., University of Washington.  
*Rebel since 1997.*

**Cho, Hokwon** - *Full Graduate Faculty*

Associate Professor; B.A., Korea University; M.A.,  
Ph.D., University of California, Santa Barbara. *Rebel*  
*since 1999.*

**Costa, David** - *Full Graduate Faculty*

Professor; B.S., Federal University of Pernambuco,  
Recife, Brazil; Ph.D., Brown University. *Rebel since*  
*1993.*

**Dalpatadu, Rohan** - *Full Graduate Faculty*

Associate Professor; B.S., University of Ceylon;  
M.S., Ph.D., Southern Illinois University at  
Carbondale. *Rebel since 1985.*

**Ding, Zhonghai** - *Full Graduate Faculty*

Professor; B.S., Nanjing Institute of Technology;  
M.S., Institute of Systems Science; Ph.D., Texas  
A&M University.

**Ho, Chih-Hsiang** - *Full Graduate Faculty*

Professor; B.S., National Central University; M.S.,  
New Mexico Highlands University; M.S., Ph.D.,  
University of Minnesota. *Rebel since 1986.*

**Jaynes, Jessica**

Assistant Professor; B.A., University of California,  
Fullerton; M.S., Ph.D. University of California, Los  
Angles. *Rebel since 2013.*

**Li, Jichun** - *Full Graduate Faculty*

Professor; B.S., M.S., Nanjing University, China;  
Ph.D., Florida State University. *Rebel since 2000.*

**Li, Xin** - *Full Graduate Faculty*

Associate Professor; B.S., M.S., Jilin University,  
Changchun; Ph.D., Texas A&M University. *Rebel*  
*since 1992.*

**Marcuzzi, Michael** - *Full Graduate Faculty*

Associate Professor; B.S., M.S., Ph.D., University of  
Delaware. *Rebel since 1997.*

**Muleshkov, Angel** - *Full Graduate Faculty*

Associate Professor; M.S., Ph.D., University of  
Washington. *Rebel since 1989.*

**Neda, Monika** - *Full Graduate Faculty*

Associate Professor; B.S., University of Novi Sad;  
Ph.D., University of Pittsburgh. *Rebel since 2007.*

**Phanord, Dieudonne D.** - *Full Graduate Faculty*

Professor; B.S., Gordon College; M.S., Ph.D.,  
University of Illinois, Chicago. *Rebel since 2002.*

**Robinette, Michelle** - *Full Graduate Faculty*

Associate Professor; B.S., M.A., Ph.D., Western  
Michigan University. *Rebel since 1996.*

**Salehi, Ebrahim** - *Full Graduate Faculty*

Professor; B.S., University of Tehran; M.S., Institute  
of Mathematics, Tehran; M.S., Ph.D., University of  
Washington. *Rebel since 1985.*

**Savatorova, Viktoria**

Assistant Professor; B.S., Moscow Institute of  
Physics and Technology; M.S., Ph.D., Moscow  
Engineering Institute (MEPhI); D.Sc., Higher  
Attestation Commission of Ministry of Education and  
Science, Russia. *Rebel since 2014.*

**Shiue, Peter** - *Full Graduate Faculty*

Professor; B.S., National Taiwan Normal University;  
M.S., Ph.D., Southern Illinois University. *Rebel since*  
*1985.*

**Sun, Pengtao** - *Full Graduate Faculty*

Associate Professor; B.S., M.S., Shandong  
University; Ph.D. Institute of Mathematics,  
Academia Sinica. *Rebel since 2007.*

**Tehrani, Hossein** - *Full Graduate Faculty*

Associate Professor; B.S., Sharif University of  
Technology; M.S., Ph.D., Courant Institute of  
Mathematical Sciences. *Rebel since 1997.*

**Verma, Sadanand**

Professor; B.S., Patna University, Patna Bihar,  
India; M.S., Bihar University, Muzzaffarpur, Bihar,  
India; M.S., Ph.D., Wayne State University. *Rebel*  
*since 1967*

**Warren, Carryn** - *Full Graduate Faculty*

Associate Professor; B.S., M.S., Ph.D., Old  
Dominion University. *Rebel since 2003.*

**Yang, Hongtao** - *Full Graduate Faculty*  
Associate Professor; B.S., M.S., Jilin University;  
Ph.D., University of Alberta. *Rebel since 2007.*

### **Professors Emeriti**

#### **Aizely, Paul**

Professor; B.A., Harvard University; M.S.,  
University of Arizona; Ph.D., Arizona State  
University. *UNLV Emeritus 1968-2008.*

#### **Bowman, Harold**

Emeritus Associate Professor; B.E.E., City College  
of New York; M.A., Oklahoma University; Ph.D.,  
Arizona State University. *UNLV Emeritus 1972-  
1999.*

#### **Graham, Malcolm**

Emeritus Professor; B.S., New Jersey State College;  
M.S., University of Massachusetts; Ed.D., Columbia  
University. *UNLV Emeritus 1956-1985.*

#### **Miel, George, J.**

Emeritus Professor; B.S., M.S., University of  
Illinois; Ph.D., University of Wyoming. *UNLV  
Emeritus 1977-1985 & 1991-2006.*

#### **Nietling, Lloyd**

Emeritus Associate Professor; B.A., St. Mary of the  
Plains College; B.S., Aquinas College; M.A.,  
University of Michigan; Ph.D., Ohio State  
University. *UNLV Emeritus 1967-1992.*

## Doctor of Philosophy - Mathematical Sciences

### **Plan Description**

UNLV's Mathematical Sciences Ph.D. program is Nevada's only Ph.D. program in the Mathematical Sciences. It is relatively new (established in 2005) and includes concentrations in Applied Math, Pure Math, Computational Math, and Statistics to serve students in many different areas of Mathematical Sciences.

The main part of the Ph.D. is the dissertation. The degree requirements also include: credit requirement, qualifying examination requirement, subject area breadth requirement.

The qualifying examination requirement and the subject area breadth requirement are tailored according to the area of concentration.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

In addition to the requirements of the Graduate College, applicants must satisfy the admission requirements of the Department of Mathematical Sciences summarized as follows. Applicants seeking direct admission to the doctoral program without a previously earned master's degree must have a minimum GPA of 3.00 for all undergraduate work or a minimum GPA of 3.25 for the last two years of undergraduate mathematics work. Applicants with a master's degree must have a minimum GPA 3.00 for all graduate work and at least 15 credits of graduate course work in Mathematical Sciences with a grade of B or better. Applicants must submit the official score of the GRE General Test with a minimum score in the top 35% on the GRE quantitative.

To apply for admission to the Ph.D. Program, applicants must submit application materials to both

the Graduate College and the Department of Mathematical Sciences.

Firstly, applicants must submit to the Graduate College the following materials:

1. A completed application form.
2. The official transcripts from all colleges and universities the student has attended.

Secondly, applicants must submit to the Department the following materials:

1. Copies of all official transcripts sent to the Graduate College.
2. At least three letters of recommendation from persons familiar with the applicant's academic record and potential for advanced study in mathematical sciences.
3. The official GRE General Test score
4. A completed application for Graduate Assistantship, if interested.
5. A statement of purpose describing the aim in applying for graduate study, the particular area of specialization within the mathematical sciences (if known), and any additional information that may aid the selection committee in evaluating preparation and aptitude for graduate study.

Details of the admission procedure for the Ph.D. Program can be found on the Department's web site.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See subplan requirements below.*

### **Subplan 1 Requirements: Post-Bachelor's - Applied Mathematics Track**

Total Credits Required: 78

### **Course Requirements**

#### **Required Courses Part 1– Credits: 6**

Complete two analysis or two theory courses:

MAT 707 - Real Analysis I  
MAT 708 - Real Analysis II  
OR  
MAT 709 - Complex Function Theory I  
MAT 710 - Complex Function Theory II

#### **Required Courses Part 2 – Credits: 6**

MAT 771 - Applied Analysis I  
MAT 772 - Applied Analysis II

#### **Subject Area Courses – Credits: 12**

Complete two of the following one-year course sequences:

MAT 703 - Abstract Algebra III  
MAT 704 - Abstract Algebra IV  
MAT 723 - Advanced Ordinary Differential Equations I  
MAT 724 - Advanced Ordinary Differential Equations II  
MAT 729 - Partial Differential Equations I  
MAT 730 - Partial Differential Equations II  
MAT 733 - Topology  
MAT 734 - Topology  
MAT 765 - Advanced Numerical Analysis  
MAT 766 - Advanced Numerical Analysis  
STA 767 - Mathematical Statistics I  
STA 768 - Mathematical Statistics II

#### **Additional Courses – Credits: 12**

Complete 12 credits of 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

#### **Elective Courses – Credits: 24**

Complete 24 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

#### **Dissertation – Credits: 18**

MAT 799 - Dissertation



Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 2 Requirements: Post-Bachelor's - Computational Mathematics Track**

Total Credits Required: 78

Course Requirements

**Required Courses Part 1 – Credits: 6**

Complete two analysis or two theory courses:

MAT 707 - Real Analysis I

MAT 708 - Real Analysis II

OR

MAT 709 - Complex Function Theory I

MAT 710 - Complex Function Theory II

**Required Courses Part 2 – Credits: 6**

MAT 765 - Advanced Numerical Analysis

MAT 766 - Advanced Numerical Analysis

**Subject Area Courses – Credits: 12**

Complete two of the following one-year course sequences:

MAT 703 - Abstract Algebra III

MAT 704 - Abstract Algebra IV

MAT 723 - Advanced Ordinary Differential Equations I

MAT 724 - Advanced Ordinary Differential Equations II

MAT 729 - Partial Differential Equations I

MAT 730 - Partial Differential Equations II

MAT 733 - Topology

MAT 734 - Topology

MAT 771 - Applied Analysis I

MAT 772 - Applied Analysis II

STA 767 - Mathematical Statistics I

STA 768 - Mathematical Statistics II

**Additional Courses – Credits: 12**

Complete 12 credits of 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

**Elective Courses – Credits: 24**

Complete 24 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

**Dissertation – Credits: 18**

MAT 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 3 Requirements: Post-Bachelor's - Pure Mathematics Track**

Total Credits Required: 78

Course Requirements

**Required Courses Part 1 – Credits: 6**

Complete two analysis or two theory courses:

MAT 707 - Real Analysis I

MAT 708 - Real Analysis II

OR

MAT 709 - Complex Function Theory I

MAT 710 - Complex Function Theory II

**Required Courses Part 2 – Credits: 6**

MAT 703 - Abstract Algebra III

MAT 704 - Abstract Algebra IV

**Subject Area Courses – Credits: 12**

Complete two of the following one-year course sequences:

MAT 701 - Foundations of Mathematics III

MAT 702 - Foundations of Mathematics IV

MAT 717 - Analytical Solution Methods for Partial Differential Equations, I

MAT 718 - Analytical Solution Methods for Partial Differential Equations, II  
MAT 723 - Advanced Ordinary Differential Equations I  
MAT 724 - Advanced Ordinary Differential Equations II  
MAT 733 - Topology  
MAT 734 - Topology  
MAT 771 - Applied Analysis I  
MAT 772 - Applied Analysis II  
STA 767 - Mathematical Statistics I  
STA 768 - Mathematical Statistics II

**Additional Courses – Credits: 12**

Complete 12 credits of 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

**Elective Courses – Credits: 24**

Complete 24 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

**Dissertation – Credits: 18**

MAT 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 4 Requirements: Post-Bachelor's - Statistics Track**

Total Credits Required: 78

Course Requirements

**Required Courses Part 1 – Credits: 6**

STA 767 - Mathematical Statistics I  
STA 768 - Mathematical Statistics II

**Required Courses Part 2 – Credits: 6**

STA 761 - Regression Analysis I  
STA 762 - Regression Analysis II

**Subject Area Courses – Credits: 12**

Complete two of the following one-year course sequences:

STA 713 - Experimental Design  
STA 715 - Multivariate Statistical Methods  
STA 750 - Time Series Analysis  
STA 751 - Spatial Statistics  
STA 755 - Stochastic Modeling I  
STA 756 - Stochastic Modeling II  
STA 753 - Bayesian Data Analysis  
STA 765 - Statistical Decision Theory  
STA 763 - Analysis of Variance I  
STA 764 - Analysis of Variance II  
MAT 707 - Real Analysis I  
STA 731 - Probability Theory and Its Applications

**Additional Courses – Credits: 12**

Complete 12 credits of 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

**Elective Courses – Credits: 24**

Complete 24 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

**Dissertation – Credits: 18**

STA 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 5 Requirements: Post-Master's - Applied Mathematics Track**

Credits Required: 48

Course Requirements

**Required Courses Part 1– Credits: 6**

Complete two analysis or two theory courses:

MAT 707 - Real Analysis I  
 MAT 708 - Real Analysis II  
 OR  
 MAT 709 - Complex Function Theory I  
 MAT 710 - Complex Function Theory II

**Required Courses Part 2 – Credits: 6**

MAT 771 - Applied Analysis I  
 MAT 772 - Applied Analysis II

**Subject Area Courses – Credits: 12**

Complete two of the following one-year course sequences:

MAT 703 - Abstract Algebra III  
 MAT 704 - Abstract Algebra IV  
 MAT 723 - Advanced Ordinary Differential Equations I  
 MAT 724 - Advanced Ordinary Differential Equations II  
 MAT 729 - Partial Differential Equations I  
 MAT 730 - Partial Differential Equations II  
 MAT 733 - Topology  
 MAT 734 - Topology  
 MAT 765 - Advanced Numerical Analysis  
 MAT 766 - Advanced Numerical Analysis  
 STA 767 - Mathematical Statistics I  
 STA 768 - Mathematical Statistics II

**Elective Courses – Credits: 6**

Complete 6 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

**Dissertation – Credits: 18**

MAT 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 6 Requirements: Post-Master's - Computational Mathematics Track**

Total Credits Required: 48

Course Requirements

**Required Courses Part 1 – Credits: 6**

Complete two analysis or two theory courses:

MAT 707 - Real Analysis I  
 MAT 708 - Real Analysis II  
 OR  
 MAT 709 - Complex Function Theory I  
 MAT 710 - Complex Function Theory II

**Required Courses Part 2 – Credits: 6**

MAT 765 - Advanced Numerical Analysis  
 MAT 766 - Advanced Numerical Analysis

**Subject Area Courses – Credits: 12**

Complete two of the following one-year course sequences:

MAT 703 - Abstract Algebra III  
 MAT 704 - Abstract Algebra IV  
 MAT 723 - Advanced Ordinary Differential Equations I  
 MAT 724 - Advanced Ordinary Differential Equations II  
 MAT 729 - Partial Differential Equations I  
 MAT 730 - Partial Differential Equations II  
 MAT 733 - Topology  
 MAT 734 - Topology  
 MAT 771 - Applied Analysis I  
 MAT 772 - Applied Analysis II  
 STA 767 - Mathematical Statistics I  
 STA 768 - Mathematical Statistics II

**Elective Courses – Credits: 6**

Complete 6 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

**Dissertation – Credits: 18**

MAT 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 7 Requirements: Post-Master's - Pure Mathematics Track**

Total Credits Required: 48

Course Requirements

**Required Courses Part 1 – Credits: 6**

Complete two analysis or two theory courses:

MAT 707 - Real Analysis I

MAT 708 - Real Analysis II

OR

MAT 709 - Complex Function Theory I

MAT 710 - Complex Function Theory II

**Required Courses Part 2 – Credits: 6**

MAT 703 - Abstract Algebra III

MAT 704 - Abstract Algebra IV

**Subject Area Courses – Credits: 12**

Complete two of the following one-year course sequences:

MAT 701 - Foundations of Mathematics III

MAT 702 - Foundations of Mathematics IV

MAT 717 - Analytical Solution Methods for Partial Differential Equations, I

MAT 718 - Analytical Solution Methods for Partial Differential Equations, II

MAT 723 - Advanced Ordinary Differential Equations I

MAT 724 - Advanced Ordinary Differential Equations II

MAT 733 - Topology

MAT 734 - Topology

MAT 771 - Applied Analysis I

MAT 772 - Applied Analysis II

STA 767 - Mathematical Statistics I

STA 768 - Mathematical Statistics II

**Elective Courses – Credits: 6**

Complete 6 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

**Dissertation – Credits: 18**

MAT 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 8 Requirements: Post-Master's - Statistics Track**

Total Credits Required: 48

Course Requirements

**Required Courses Part 1 – Credits: 6**

STA 767 - Mathematical Statistics I

STA 768 - Mathematical Statistics II

**Required Courses Part 2 – Credits: 6**

STA 761 - Regression Analysis I

STA 762 - Regression Analysis II

**Subject Area Courses – Credits: 12**

Complete two of the following one-year course sequences:

STA 713 - Experimental Design

STA 715 - Multivariate Statistical Methods

STA 750 - Time Series Analysis

STA 751 - Spatial Statistics

STA 755 - Stochastic Modeling I

STA 756 - Stochastic Modeling II

STA 753 - Bayesian Data Analysis

STA 765 - Statistical Decision Theory

STA 763 - Analysis of Variance I

STA 764 - Analysis of Variance II

MAT 707 - Real Analysis I

STA 731 - Probability Theory and Its Applications

### **Elective Courses – Credits: 6**

Complete 6 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

### **Dissertation – Credits: 18**

STA 799 - Dissertation

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

### **Plan Degree Requirements**

1. Students in a post-bachelor's track must complete a minimum of 60 credits of course work (excluding dissertation), at least 18 of which must be at the 700-level.
2. Students in a post-master's track must complete a minimum of 30 credits of course work (excluding dissertation), at least 18 of which must be at the 700-level.
3. A student must enroll in a minimum of 18 credits of Dissertation.
4. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Qualifying Examination. The purpose of the Qualifying Examination is to measure the student's knowledge of basic graduate course work in selected areas and to make sure that the student is prepared to proceed to more advanced studies.
  - a. A doctoral student normally takes the Qualifying Examination within the second year after entering the

program, based on the core courses in the student's concentration.

- b. Doctoral students must pass the Qualifying Examination within three years.
- c. The Qualifying Examination consists of two parts, corresponding to Required Courses Part 1 & Part2.
- d. A student who fails the Qualifying Examination on the first attempt will be placed on probation and must complete a second examination within the next twelve months.
  - i. A post-bachelor's track student who fails the second examination may be allowed to complete a M.S. degree with the consent of the Graduate Studies Committee. Such a student will not be permitted to seek readmission to the Doctoral Program in Mathematical Sciences at UNLV.
  - ii. A post-master's track student who fails the Qualifying Examination a second time will be separated from the program.
6. Subject Area Breadth Requirements. With the goal of encouraging students to be exposed to a broad spectrum of mathematics during their graduate studies, doctoral students are required to take at least two one-year sequence courses with a grade of B or better, in addition to the core courses tested by the Ph.D. Qualifying Examination.
7. The purpose of the Comprehensive Examination is to measure a doctoral student's knowledge of the advanced level graduate work that will be required as the student begins to do original research in his or her area of concentration.

- a. After passing the Qualifying Examination, a student will engage in the approved course work specified by the Doctoral Advisory Committee and submit to the latter a dissertation proposal.
  - b. Usually one year after passing the Qualifying Examination, a student will complete the Comprehensive Examination, designed and administered by the Doctoral Advisory Committee, based on the student's course work with focus on his/her ability to perform research on the dissertation proposal.
  - c. A student who fails the Comprehensive Examination on the first attempt must complete a second examination within the next semester. A student who fails the examination a second time will be separated from the Doctoral Program.
  - d. A student who has successfully passed the Comprehensive Examination will be admitted to Candidacy for the Ph.D. degree and thereby be allowed to proceed with the approved dissertation proposal.
8. A doctoral candidate is expected to complete a dissertation embodying the results of significant original research, which is performed independently by the student, and is acceptable to the student's advisory committee.
  9. Skills in foreign languages, computer programming and/or interdisciplinary areas, dependent on the concentration of a student's program, will be determined by the Doctoral Advisory Committee and the Graduate Studies Committee in consultation with the Department Chair.
  10. Dissertation Defense. After submitting to the Doctoral Advisory Committee a dissertation draft that was approved by his/her Dissertation Advisor, a candidate will defend orally the dissertation before the Doctoral Advisory Committee and any other graduate faculty members who wish to attend. The Doctoral Advisory Committee will recommend to the Graduate Coordinator/Department Chair whether the dissertation and defense are both satisfactory.
  11. Specific degree requirements, including those listed above, are described in detail in the Graduate Student Handbook for the Ph.D. Program, available on the department's web site. The listing of graduate courses is constantly under review. Graduate students will automatically receive new listings. Since some courses are taught on an "on demand" basis, course prerequisites for each of the four concentrations are considered guidelines with courses roughly equivalent accepted as prerequisites, subject to approval of the Graduate Studies Committee and the student's Doctoral Advisory Committee.
  12. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee.
  13. The Graduate College requires a minimum of 50 percent of the total credits required to complete the doctoral degree, exclusive of transferred credits and/or the dissertation, must be earned at UNLV after admission to a graduate degree program.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the

approved electronic version to ProQuest by the posted deadline.

## Master of Science - Mathematical Sciences

### Plan Description

The degree is a well-established MS program with concentrations in Applied Math, Pure Math, Applied Statistics, and Math Education to serve students in many different areas of Mathematical Sciences.

The concentrations in Pure Math, Applied Math and Applied Statistics each include a core requirement corresponding to the given area. Additional credits are required so that students can develop knowledge in a field of interest. All three require the student to either defend a thesis or pass a written comprehensive exam corresponding to the core requirements.

The teaching mathematics concentration requires a variety of content courses, as well as, education courses. The degree options for the teaching math concentration include the opportunity to write a professional paper.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.
2. Have a bachelor's degree with a minimum GPA of 2.75 for all undergraduate work or a minimum GPA of 3.00 for the last two years of undergraduate work, and completed at least 18 credits of upper-division mathematics or statistics courses beyond calculus.
3. Submit application materials to both the Graduate College and the Department of Mathematical Sciences.

1. Firstly, applicants must submit to the Graduate College the following materials:
  1. A completed online application
  2. Submit official transcripts from all post-secondary institutions attended
2. Secondly, applicants must submit to the Department of Mathematical Sciences the following materials:
  1. Copies of all transcripts sent to the Graduate College
  2. At least two letters of recommendation from persons familiar with the applicant's academic record and potential for advanced study in mathematical sciences
  3. A statement of purpose describing the aim in applying for graduate study, the particular area of specialization within the mathematical sciences (if known), and any additional information that may aid the selection committee in evaluating the applicant's preparation and aptitude for graduate study
  4. A completed online Graduate Assistantship application, if interested

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Pure Mathematics - Thesis Track**

Total Credits Required: 33

Course Requirements

#### **Analysis Courses – Credits: 6**

Complete two of the following courses:

MAT 707 - Real Analysis I  
 MAT 708 - Real Analysis II  
 MAT 709 - Complex Function Theory I  
 MAT 710 - Complex Function Theory II  
 MAT 771 - Applied Analysis I  
 MAT 772 - Applied Analysis II

#### **Algebra Course – Credits: 3**

Complete one of the following courses:

MAT 703 - Abstract Algebra III  
 MAT 704 - Abstract Algebra IV  
 MAT 753 - Homological Algebra  
 MAT 754 - Homological Algebra  
 MAT 755 - Topics in Algebra

#### **Area of Emphasis Courses – Credits: 6**

Complete an additional 6 credits of 700-level MAT courses (excluding MAT 711 & 712) in a field of special interest.

#### **Elective Courses – Credits: 12**

Complete 12 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

#### **Thesis – Credits: 6**

MAT 791 - Thesis

Degree Requirements

1. Students must complete a minimum of 33 credit hours with a minimum GPA of 3.00.
2. Of the 33 required credits, 27 must be coursework. Of those 27 coursework credits, at least 18 must be 700-level.



3. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee. Students who fail to meet the conditions of their probation will be separated.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 2 Requirements: Pure Mathematics - Comprehensive Exam Track**

Total Credits Required: 30

#### Course Requirements

#### **Analysis Courses – Credits: 6**

Complete two of the following courses:

MAT 707 - Real Analysis I  
 MAT 708 - Real Analysis II

MAT 709 - Complex Function Theory I  
 MAT 710 - Complex Function Theory II  
 MAT 771 - Applied Analysis I  
 MAT 772 - Applied Analysis II

#### **Algebra Course – Credits: 3**

Complete one of the following courses:

MAT 703 - Abstract Algebra III  
 MAT 704 - Abstract Algebra IV  
 MAT 753 - Homological Algebra  
 MAT 754 - Homological Algebra  
 MAT 755 - Topics in Algebra

#### **Area of Emphasis Courses – Credits: 6**

Complete an additional 6 credits of 700-level MAT courses (excluding MAT 711 & 712) in a field of special interest.

#### **Elective Courses – Credits: 15**

Complete 15 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

#### Degree Requirements

1. Students must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
2. Of the 30 required credits, at least 18 must be 700-level.
3. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee.
4. In consultation with his/her advisor, a student will organize an advisory committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion.

Please see Graduate College policy for committee appointment guidelines.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must pass a final comprehensive examination.

#### **Subplan 3 Requirements: Applied Mathematics - Thesis Track**

Total Credits Required: 33

#### Course Requirements

##### **Required Courses – Credits: 6**

Complete two of the following courses:

MAT 707 - Real Analysis I  
MAT 708 - Real Analysis II  
MAT 709 - Complex Function Theory I  
MAT 710 - Complex Function Theory II  
MAT 771 - Applied Analysis I  
MAT 772 - Applied Analysis II

##### **Numerical Analysis Course – Credits: 3**

Complete one of the following courses:

MAT 663 - Advanced Matrix Theory and Applications  
MAT 765 - Advanced Numerical Analysis  
MAT 767 - Topics in Numerical Analysis

##### **Applied and Computational Courses – Credits: 6**

Complete 6 credits of 700-level advisor-approved MAT coursework in applied and computational mathematics.

##### **Elective Courses – Credits: 12**

Complete 12 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

##### **Thesis – Credits: 6**

#### MAT 791 - Thesis

#### Degree Requirements

1. Students must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
2. Of the 33 required credits, 27 must be coursework. Of those 27 coursework credits, at least 18 must be 700-level.
3. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 4 Requirements: Applied Mathematics - Comprehensive Exam Track**

Total Credits Required: 30

## Course Requirements

### **Required Courses – Credits: 6**

Complete two of the following courses:

MAT 707 - Real Analysis I  
MAT 708 - Real Analysis II  
MAT 709 - Complex Function Theory I  
MAT 710 - Complex Function Theory II  
MAT 771 - Applied Analysis I  
MAT 772 - Applied Analysis II

### **Numerical Analysis Course – Credits: 3**

Complete one of the following courses:

MAT 663 - Advanced Matrix Theory and Applications  
MAT 765 - Advanced Numerical Analysis  
MAT 767 - Topics in Numerical Analysis

### **Applied and Computational Courses – Credits: 6**

Complete 6 credits of 700-level advisor-approved MAT coursework in applied and computational mathematics.

### **Elective Courses – Credits: 15**

Complete 15 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

## Degree Requirements

1. Students must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
2. Of the 30 required credits, at least 18 must be 700-level.
3. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee.
4. In consultation with his/her advisor, a student will organize an advisory committee of at least three departmental members. In

addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

## Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete a final comprehensive examination.

### **Subplan 5 Requirements: Applied Statistics - Thesis Track**

Total Credits Required: 33

## Course Requirements

### **Required Courses – Credits: 6**

MAT 657 - Introduction to Real Analysis I  
MAT 663 - Advanced Matrix Theory and Applications

### **Core Courses – Credits: 12**

STA 761 - Regression Analysis I  
STA 762 - Regression Analysis II  
STA 767 - Mathematical Statistics I  
STA 768 - Mathematical Statistics II

### **Statistics Courses – Credits: 6**

Complete an additional 6 credits of 700-level STA coursework in a field of special interest to the student.

### **Elective Courses – Credits: 3**

Complete 3 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

### **Thesis – Credits: 6**

STA 791 - Thesis

## Degree Requirements

1. Students must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
2. Of the 33 required credits, 27 must be coursework. Of those 27 coursework credits, at least 18 must be 700-level.
3. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

## Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## **Subplan 6 Requirements: Applied Statistics - Comprehensive Exam Track**

Total Credits Required: 30

## Course Requirements

## **Required Courses – Credits: 6**

MAT 657 - Introduction to Real Analysis I  
MAT 663 - Advanced Matrix Theory and Applications

## **Core Courses – Credits: 12**

STA 761 - Regression Analysis I  
STA 762 - Regression Analysis II  
STA 767 - Mathematical Statistics I  
STA 768 - Mathematical Statistics II

## **Statistics Courses – Credits: 6**

Complete an additional 6 credits of 700-level STA coursework in a field of special interest to the student.

## **Elective Courses – Credits: 6**

Complete 6 credits of 600- or 700-level MAT or STA courses (excluding MAT 711 & 712), or other advisor-approved courses.

## Degree Requirements

1. Students must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
2. Of the 30 required credits, 27 must be coursework. Of those 27 coursework credits, at least 18 must be 700-level.
3. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee.
4. In consultation with his/her advisor, a student will organize an advisory committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

## Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must pass a final comprehensive examination.

### **Subplan 7 Requirements: Teaching Mathematics - Professional Paper Track**

Total Credits Required: 30

#### Course Requirements

#### **Required Courses – Credits: 9**

MAT 711 - Survey of Mathematical Problems I  
MAT 712 - Survey of Mathematical Problems II  
MAT 714 - History of Mathematics

#### **Algebra Course – Credits: 3**

Complete one of the following courses:

MAT 653 - Abstract Algebra I  
MAT 654 - Abstract Algebra II  
MAT 703 - Abstract Algebra III  
MAT 704 - Abstract Algebra IV  
MAT 655 - Elementary Theory of Numbers I  
MAT 669 - Combinatorics I  
MAT 670 - Combinatorics II

#### **Analysis Course – Credits: 3**

Complete one of the following courses:

MAT 657 - Introduction to Real Analysis I  
MAT 658 - Introduction to Real Analysis II  
MAT 707 - Real Analysis I  
MAT 708 - Real Analysis II  
MAT 659 - Elementary Complex Analysis  
MAT 709 - Complex Function Theory I  
MAT 710 - Complex Function Theory II  
MAT 687 - Introduction to Partial Differential Equations

#### **Foundations Course – Credits: 3**

Complete one of the following courses:

MAT 651 - Foundations of Mathematics I  
MAT 652 - Foundations of Mathematics II  
MAT 701 - Foundations of Mathematics III  
MAT 702 - Foundations of Mathematics IV  
MAT 680 - College Geometry  
MAT 683 - General Topology I  
MAT 684 - General Topology II

#### **Education Courses – Credits: 6**

Complete two of the following courses:

CIS 622 - Instructional Middle School Mathematics Education  
CIS 624 - Instruction Secondary Mathematics Education  
CIG 620 - Principles of Learning Mathematics

#### **Elective Courses – Credits: 3**

Complete 3 credits of 600- or 700-level MAT or STA courses, or other advisor-approved courses.

#### **Professional Paper – Credits: 3**

MAT 793 - Teaching Concentration Professional Paper Research

#### Degree Requirements

1. Students must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
2. Of the 30 required credits, 27 must be coursework. Of those 27 coursework credits, at least 15 must be 700-level.
3. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee.
4. In consultation with his/her advisor, a student will organize an advisory committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added

at the student and department's discretion.  
Please see Graduate College policy for  
committee appointment guidelines.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete and defend a professional paper.

#### **Subplan 8 Requirements: Teaching Mathematics - Comprehensive Exam Track**

Total Credits Required: 30

#### Course Requirements

##### **Required Courses – Credits: 9**

MAT 711 - Survey of Mathematical Problems I  
MAT 712 - Survey of Mathematical Problems II  
MAT 714 - History of Mathematics

##### **Algebra Course – Credits: 3**

Complete one of the following courses:

MAT 653 - Abstract Algebra I  
MAT 654 - Abstract Algebra II  
MAT 703 - Abstract Algebra III  
MAT 704 - Abstract Algebra IV  
MAT 655 - Elementary Theory of Numbers I  
MAT 669 - Combinatorics I  
MAT 670 - Combinatorics II

##### **Analysis Course – Credits: 3**

Complete one of the following courses:

MAT 657 - Introduction to Real Analysis I  
MAT 658 - Introduction to Real Analysis II  
MAT 707 - Real Analysis I  
MAT 708 - Real Analysis II  
MAT 659 - Elementary Complex Analysis  
MAT 709 - Complex Function Theory I  
MAT 710 - Complex Function Theory II  
MAT 687 - Introduction to Partial Differential Equations

##### **Foundations Course – Credits: 3**

Complete one of the following courses:

MAT 651 - Foundations of Mathematics I  
MAT 652 - Foundations of Mathematics II  
MAT 701 - Foundations of Mathematics III  
MAT 702 - Foundations of Mathematics IV  
MAT 680 - College Geometry  
MAT 683 - General Topology I  
MAT 684 - General Topology II

##### **Education Courses – Credits: 6**

Complete two of the following courses:

CIS 622 - Instructional Middle School Mathematics Education  
CIS 624 - Instruction Secondary Mathematics Education  
CIG 620 - Principles of Learning Mathematics

##### **Elective Courses – Credits: 6**

Complete 6 credits of 600- or 700-level MAT or STA courses, or other advisor-approved courses.

#### Degree Requirements

1. Students must complete a minimum of 30 credit hours with a minimum GPA of 3.00.
2. Of the 30 required credits, 27 must be coursework. Of those 27 coursework credits, at least 15 must be 700-level.
3. A student will be placed on academic probation if a minimum of 3.00 GPA is not maintained in all work taken in the degree program. A grade of C or less in one graduate-level course will cause a student to be placed on academic probation and will elicit a critical review of the student's program by the Graduate Studies Committee.
4. In consultation with his/her advisor, a student will organize an advisory committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion.

Please see Graduate College policy for committee appointment guidelines.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must pass a final comprehensive examination.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

#### Mathematics Courses

**MAT 651 - Foundations of Mathematics I**  
Credits 3

Introduction to logic, set algebra and Boolean algebra, with applications to the theory of computing machines.

**Notes** This course is crosslisted with MAT 451. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

**MAT 652 - Foundations of Mathematics II**  
Credits 3

Formalization, proofs, and models of quantificational logic; axiomatics; application to mathematical theories, including set theory.

**Notes** This course is crosslisted with MAT 452. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

**MAT 653 - Abstract Algebra I**  
Credits 3

Sets, functions, groups, quotient groups, homomorphism theorems, Abelian groups, rings, polynomial rings, division rings, Euclidean domains, fields and vector spaces.

**Notes** This course is crosslisted with MATH 453. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

MAT 654 - Abstract Algebra II

Credits 3

Sets, functions, groups, quotient groups, homomorphism theorems, Abelian groups, rings, polynomial rings, division rings, Euclidean domains, fields and vector spaces.

**Notes** This course is crosslisted with MATH 454.

Credit at the 600-level requires additional work.

The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

MAT 655 - Elementary Theory of Numbers I

Credits 3

Topics include divisibility, arithmetic functions, congruences, quadratic residues, primitive roots, Diophantine equations, continued fractions, algebraic numbers, and partitions.

**Notes** This course is crosslisted with MATH 455.

Credit at the 600-level requires additional work.

The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

MAT 656 - Elementary Theory of Numbers II

Credits 3

Topics include divisibility, arithmetic functions, congruences, quadratic residues, primitive roots, Diophantine equations, continued fractions, algebraic numbers, and partitions.

**Notes** This course is crosslisted with MATH 456.

Credit at the 600-level requires additional work.

The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

MAT 657 - Introduction to Real Analysis I

Credits 3

Topics include finite and infinite sets, axiomatic study of real numbers, topology of Cartesian spaces, sequences of functions, continuous functions, differentiation of functions of one variable.

**Notes** This course is crosslisted with MATH 457.

Credit at the 600-level requires additional work.

The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

MAT 658 - Introduction to Real Analysis II

Credits 3

Topics include uniform continuity and fixed point theorems, sequences of continuous functions, approximation theorems, Riemann-Stieltjes integral, uniform convergence and infinite integrals, series of functions, differentiation in  $\mathbb{R}^n$ .

**Notes** This course is crosslisted with MATH 458.

Credit at the 600-level requires additional work.

The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

MAT 659 - Elementary Complex Analysis

Credits 3

Complex numbers, analytic functions, contour integration, conformal mapping, applications.

**Notes** This course is crosslisted with MAT 459.

Credit at the 600-level requires additional work.

The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

MAT 661 - Probability Theory

Credits 3



Fundamental concepts of probability; random variables, binomial, Poisson, normal, chi-square, T, F and other distributions; transformations of random variables; conditional and marginal distributions; central limit theorem and concepts associated with the field of statistics.

**Notes** This course is crosslisted with MATH 461. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

MAT 662 - Stochastic Processes

Credits 3

Markov chains and jump processes, elements of queuing theory, stationary stochastic processes, the Wiener process and stochastic differential equations.

**Notes** This course is crosslisted with MATH 462. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

MAT 663 - Advanced Matrix Theory and Applications

Credits 3

Rigorous mathematical treatment of orthogonal matrices, Gram-Schmidt method, Q-R factorization, least-squares fits, eigenvalues and eigenvectors, linear difference equations, systems of linear differential equations, unitary similarities, Schur's theorem, discrete Markov processes, power method, quadratic forms, singular value decompositions, pseudo-inverse, systems of linear inequalities, and simplex method.

**Notes** This course is crosslisted with MATH 463. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695,

which may be counted for graduate credit in a biological sciences program.

MAT 665 - Numerical Analysis I

Credits 3

This course, when taught by a member of the graduate faculty, may be applied to a graduate program. For listings and a course description of this 600-level course, please consult the current Undergraduate Catalog under the corresponding 400 number.

**Notes** The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

MAT 666 - Numerical Analysis II

Credits 3

This course, when taught by a member of the graduate faculty, may be applied to a graduate program. For listings and a course description of this 600-level course, please consult the current Undergraduate Catalog under the corresponding 400 number.

**Notes** The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

MAT 668 - Applied Finite Element Analysis

Credits 3

Introduction to finite element method with computer applications to engineering continuum problems such as thermodynamics, solid/fluid mechanics. Topics include variational formulation of boundary value problems, natural and essential boundary conditions, discretization of domain based on rectangular, triangular, tetrahedral and other elements, with linear, quadratic and higher order polynomial approximations.

**Notes** This course is crosslisted with MATH 468. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650

or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

#### MAT 669 - Combinatorics I

Credits 3

Graph models, covering circuits, graph colorings, trees and searching, general counting methods for arrangements and selections, generating functions, recurrence relations, and inclusion-exclusion.

**Notes** This course is crosslisted with MATH 469. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

#### MAT 670 - Combinatorics II

Credits 3

Advanced topics in combinatorics. Topics to be selected by the instructor.

**Notes** This course is crosslisted with MATH 470. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

#### MAT 680 - College Geometry

Credits 3

Study of advanced geometrical topics using the methods of proof of elementary geometry.

**Notes** This course is crosslisted with MATH 480. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

#### MAT 683 - General Topology I

Credits 3

Topological spaces, nets and filters, compactness, continuous functions, product and quotient spaces, introduction to algebraic topology.

**Notes** This course is crosslisted with MATH 483. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

#### MAT 684 - General Topology II

Credits 3

Topological spaces, nets and filters, compactness, continuous functions, product and quotient spaces, introduction to algebraic topology.

**Notes** This course is crosslisted with MATH 484. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

#### MAT 687 - Introduction to Partial Differential Equations

Credits 3

Method of separation of variables, Fourier series, divergence theorem and Green's identities, equations of mathematical physics, initial and initial boundary value problems, well-posedness, heat conduction in a thin rod, vibrations of a string, Laplace's equation, solution of the Dirichlet problem for a disc and for a rectangle.

**Notes** This course is crosslisted with MATH 488. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

**MAT 689 - Advanced Mathematical Topics**

Credits 3

Graduate-level course in advanced topics of mathematics, depending upon the interest of faculty and students.

**Notes** This course is crosslisted with MATH 489. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program. May be repeated to a maximum of six credits.

**MAT 690 - Independent Study**

Credits 3

Library research and reports on topics of mathematical interest.

**Notes** This course is crosslisted with MAT 499. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

**MAT 701 - Foundations of Mathematics III**

Credits 3

Selection from the following topics: model theory, recursive function theory, set theory, mathematics of metamathematics.

**Prerequisites** MAT 652

**MAT 702 - Foundations of Mathematics IV**

Credits 3

Selection from the following topics: model theory, recursive function theory, set theory, mathematics of metamathematics.

**Prerequisites** MAT 652

**MAT 703 - Abstract Algebra III**

Credits 3

Detailed study of the following algebraic structures: groups, rings and ideals, fields, modules, and Galois theory.

**Prerequisites** A year of undergraduate abstract algebra or consent of instructor.

**MAT 704 - Abstract Algebra IV**

Credits 3

Detailed study of the following algebraic structures: groups, rings and ideals, fields, modules, and Galois theory.

**Prerequisites** A year of undergraduate abstract algebra or consent of instructor.

**MAT 707 - Real Analysis I**

Credits 3

Theory of measure, integration and differentiation: Banach spaces; Hilbert spaces; spaces of continuous functions.

**Prerequisites** MAT 658

**MAT 708 - Real Analysis II**

Credits 3

Theory of measure, integration and differentiation: Banach spaces; Hilbert spaces; spaces of continuous functions.

**Prerequisites** MAT 658

**MAT 709 - Complex Function Theory I**

Credits 3

Analytic functions, conformal mappings, Cauchy's theorem, power series, Laurent series, the Riemann mapping theorem, harmonic functions, subharmonic functions, canonical mappings of multiply connected regions, analytic continuation.

**Prerequisites** MAT 657 or MAT 659 or equivalent.

**MAT 710 - Complex Function Theory II**

Credits 3

Analytic functions, conformal mappings, Cauchy's theorem, power series, Laurent series, the Riemann mapping theorem, harmonic functions, subharmonic functions, canonical mappings of multiply connected regions, analytic continuation.

**Prerequisites** MAT 657 or MAT 659 or equivalent.

**MAT 711 - Survey of Mathematical Problems I**

Credits 3

Selected topics from logical reasoning, probability, combinatorics, graph theory, codes, number theory, constructibility, game theory, limits, functions, set theory and foundations, and plane geometry. Problem solving and techniques of proof emphasized

throughout. Connections made between the mathematics of this course and secondary education mathematics.

**Prerequisites** Graduate standing and consent of instructor.

MAT 712 - Survey of Mathematical Problems II  
Credits 3

Continuation of topics listed for MAT 711 with emphasis on problem solving and techniques of proof. Again, connections made between the mathematical content of this course and mathematical content for secondary education.

**Prerequisites** MAT 711 or consent of instructor.

MAT 714 - History of Mathematics  
Credits 3

Historical development of mathematics from primitive origins to the present time. Lives of many mathematicians and their contributions to the development of mathematics.

**Prerequisites** Graduate standing and consent of instructor.

MAT 716 - Integrative Mathematical Topics  
Credits 3

Survey of mathematical topics in an integrative manner. The topics may cover theory and applications in long stretches including probability and statistics; combinatorics, number theory and algebra; geometry and topology; ODE and PDE; computation and numerical analysis; Real and complex analysis.

**Prerequisites** At least nine credits at 600-level as required in Requirement #1.

MAT 717 - Analytical Solution Methods for Partial Differential Equations, I

Credits 3

Covers the basic theory and methods for solving linear partial differential equations. Emphasis on introducing various techniques to obtain analytical solutions of linear partial differential equations. Techniques include: Method of separation of variables; Fourier transform method; Laplace transform method; Green's function method, etc.

**Prerequisites** MAT 487/687, or MAT 458/658, or consent of instructor.

MAT 718 - Analytical Solution Methods for Partial Differential Equations, II

Credits 3

Covers the basic theory and methods for solving nonlinear partial differential equations. Emphasis on introducing various techniques to obtain analytical solutions. Techniques include: Generalized method of characteristics, method of shock wave solution, method of travelling wave solution, perturbation method, method of similarity solution, etc.

**Prerequisites** MAT 487/687, or MAT 717, or consent of instructor.

MAT 723 - Advanced Ordinary Differential Equations I

Credits 3

Functional analysis; Frechet calculus; existence and uniqueness theorems for initial and boundary value problems; qualitative properties of solutions, particularly of linear equations.

**Prerequisites** MAT 671-672 or MAT 673-674

MAT 724 - Advanced Ordinary Differential Equations II

Credits 3

Topics to be selected from the following: Sturm-Liouville theory, stability theory, perturbation theory, numerical methods, the theory of invariant imbedding and functional differential equations.

**Prerequisites** MAT 723

MAT 725 - Mathematics for Operations Research I  
Credits 3

Theory of stochastic processes, theory of queues, Markov processes, non-Markov processes, Markov chains, applications.

**Prerequisites** MAT 661

MAT 726 - Mathematics for Operations Research II  
Credits 3

Linear and non-linear programming, dynamic programming, Lagrange multiplier and duality theorems, control theory and optimal control, applications of programming.

**Prerequisites** MAT 671 and 673

MAT 729 - Partial Differential Equations I  
Credits 3

Linear and nonlinear first order PDEs. Heat, wave and Laplace equations. Classical representation

formulas in one and more dimensions. Properties of solutions: maximum principles, energy methods, uniqueness and regularity considerations.

**Prerequisites** MAT 687 or MAT 717

MAT 730 - Partial Differential Equations II

Credits 3

Develops a functional analytical framework which will give students a deeper understanding of the subject matter. Topics include Sobolev and Holder spaces, embedding inequalities, weak solutions, regularity and maximum principles.

**Prerequisites** MAT 708 and MAT 729, or consent of instructor.

MAT 731 - Mathematical Modeling

Credits 3

Process and techniques of mathematical modeling with an emphasis on differential equations based models, though other models may also be considered. Applications selected from physical, biological and social sciences. Modeling projects based on student interests. Symbolic computation software.

**Prerequisites** MAT 687 or MAT 717 or consent of instructor.

MAT 733 - Topology

Credits 3

Selected topics from algebraic and point-set topology with emphasis on algebraic topology.

**Prerequisites** MAT 684 or consent of instructor.

MAT 734 - Topology

Credits 3

Selected topics from algebraic and point-set topology with emphasis on algebraic topology.

**Prerequisites** MAT 684 or consent of instructor.

MAT 736 - Lightning Radiative Transfer I

Credits 3

The analysis of lightning events: cloud-to-ground and intra-cloud discharges, ground and space detection of lightning.

**Prerequisites** MAT 729 or consent of instructor.

MAT 737 - Lightning Radiative Transfer II

Credits 3

Diffusion propagation of Lightning, transport phenomena, and applications of advanced Twersky scattering through clouds.

MAT 740 - Mathematical Wave Propagation Theory and Application I

Credits 3

Review of linear wave equations, techniques of linear and non-linear modeling of natural occurrences and their role in understanding mathematical inversion, mathematical foundation of dyadic wave propagation, introduction to asymptotic analysis and boundary layer theory, application to problems for waves propagating in the atmosphere, ocean and space.

**Prerequisites** MAT 717 or MAT 729 or consent of instructor.

MAT 741 - Mathematical Wave Propagation Theory and Application II

Credits 3

The generalized tensor wave nature of matter, advanced mathematical methods of non-linear and quantum optics. Earth quake dynamics, elastic waves and cracks propagation with applications from earth system and space science.

**Prerequisites** MAT 718 and MAT 740 or consent of instructor.

MAT 751 - Topics in Foundations of Mathematics

Credits 3

**Notes** May be repeated for credit with the consent of the mathematics department. Except under special circumstances, total credits limited to six credits.

**Prerequisites** MAT 701-702

MAT 753 - Homological Algebra

Credits 3

Modules, categories and factors, tensors, Hom, Tor, Ext, the dimensions of rings and modules, derived factors, cohomology of groups and algebras.

**Prerequisites** MAT 703-704 or consent of instructor.

MAT 754 - Homological Algebra

Credits 3

Modules, categories and factors, tensors, Hom, Tor, Ext, the dimensions of rings and modules, derived factors, cohomology of groups and algebras.

**Prerequisites** MAT 703-704 or consent of instructor.

MAT 755 - Topics in Algebra

Credits 3

**Notes** May be repeated for credit with the consent of the mathematics department. Except under special

circumstances, total credits limited to six.

**Prerequisites** MAT 703-704 or consent of instructor.

MAT 756 - Arithmetic on Elliptic Curves  
Credits 3

The group structure of elliptic curves over the reals, complex numbers, the rationals, number fields, and finite fields; Bezout's theorem and its applications; projective geometry; genus; Mordell's theorem; points of finite order; and heights. Additional topics may include complex multiplication; modular forms; and factoring using elliptic curves.

**Prerequisites** MAT 653 and 654, or equivalent.

MAT 757 - Topics in Analysis  
Credits 3

**Notes** May be repeated for credit with the consent of the mathematics department. Except under special circumstances, total credits limited to six.

**Prerequisites** MAT 707-708 or consent of instructor.

MAT 760 - Mathematical Scattering Theory and Applications I  
Credits 3

Scalar, vector, and tensor scattering with diverse techniques applied to earth system and space science. General Reciprocity Relations Corresponding to Different Directions of Incidence, Dyadic Scattering Theory, Two-Space Scattering Formalism of Victor Twersky, and Applications to Earth and Space Related Problems.

**Prerequisites** MAT 717 or MAT 729 or consent of instructor.

MAT 761 - Mathematical Scattering Theory and Applications II  
Credits 3

Advanced statistical mechanics and spatial statistics in relation to Twersky scattering with applications from earth system and space science. Calculation of bulk propagation parameters using both configurational and ensemble average in addition to spatial average. Application of Twersky multiple two-Space Scattering formalism to space and earth related problems.

**Prerequisites** MAT 760 or consent of instructor.

MAT 765 - Advanced Numerical Analysis  
Credits 3

Numerical solution of ordinary and partial

differential equations; advanced programming techniques; experiments with the computer.

**Notes** Topics selected by instructor. Three hours lecture, two hours laboratory.

**Prerequisites** MAT 666

MAT 766 - Advanced Numerical Analysis  
Credits 3

Numerical solution of ordinary and partial differential equations; advanced programming techniques; experiments with the computer.

**Notes** Topics selected by instructor. Three hours lecture, two hours laboratory.

**Prerequisites** MAT 666

MAT 767 - Topics in Numerical Analysis  
Credits 3

Topics selected by the instructor.

**Notes** May be repeated for credit with the consent of the mathematics department. Except under special circumstances, total credits limited to six.

**Prerequisites** MAT 765-766

MAT 771 - Applied Analysis I  
Credits 3

Functional analysis in Banach spaces and Hilbert spaces, with emphasis on computational applications. Theoretical topics to be selected from: linear functionals and operators, fixed point theorems, iterative methods, elementary spectral theory.

Applications to be selected from: finite element methods, finite difference methods, approximation and interpolation, optimization algorithms.

**Prerequisites** Graduate standing and consent of instructor.

MAT 772 - Applied Analysis II  
Credits 3

Functional analysis in Banach spaces and Hilbert spaces, with emphasis on computational applications. Theoretical topics to be selected from: linear functionals and operators, fixed point theorems, iterative methods, elementary spectral theory.

Applications to be selected from: finite element methods, finite difference methods, approximation and interpolation, optimization algorithms.

**Prerequisites** Graduate standing and consent of instructor.

MAT 775 - Calculus of Variations

Credits 3

Variation of functionals, Euler-Lagrange equation, general variations, broken extremals, Weierstrass-Erdmann conditions, canonical forms, Noether's theorem, Hamilton- Jacobi equations, Legendre's condition, conjugate points, fields, E-function, sufficient conditions for extrema, Pontryagin's principle, introduction to linear and non-linear optimal control theory.

**Prerequisites** MATH 428 or 658 or consent of instructor.

MAT 777 - Application of High-Performance Computing Methods in Science and Engineering  
Credits 3

Application of high performance computing systems to science and engineering, models for numerically intensive problem solving, high performance numerical algorithms, FORTRAN 90 and high-performance FORTRAN.

**Same as** (ME 777)

**Prerequisites** Knowledge of UNIX, FORTRAN, and previous course on numerical methods. Graduate standing.

MAT 781 - Advanced Graduate Workshop in Foundations  
Credits 3

Students are assigned advanced material to read, lecture on, and present to the class. Two years of 700-level mathematics in Foundations are required. The workshop is very time intensive, with additional weekly meetings required. Students will present polished lectures, based on their workshop presentations, at the Department's Set Theory Seminar.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** MAT 751

MAT 783 - Topics in Topology  
Credits 3

**Notes** May be repeated for credit with the consent of the mathematics department. Except under special circumstances, total credits limited to six credits.

**Prerequisites** Consent of instructor.

MAT 789 - Topics in Advanced Mathematics  
Credits 3

Graduate-level course in some field of mathematics,

at advanced level, depending upon the current interest of the staff and the students.

**Notes** May be repeated to a maximum of six credits.

MAT 790 - Independent Study  
Credits 1 – 3

Library work and reports on topics of mathematical interest.

**Notes** May be repeated for credit with the consent of the mathematics department. Except under special circumstances, total credits will be limited to six.

MAT 791 - Thesis  
Credits 1 – 6

**Notes** May be repeated but only six credits will be applied to the student's program.

**Grading** S/F grading only.

MAT 792 - Research Seminar  
Credits 1

Oral presentation of assigned articles.

**Notes** May be repeated to a maximum of four credits.

MAT 793 - Teaching Concentration Professional Paper Research  
Credits 1 – 3

Individual research towards an applied professional paper under the direction of a faculty member.

**Notes** May be repeated any number of times, but no more than three credits will count towards degree requirements.

**Grading** S/F grading only.

**Prerequisites** Consent of instructor.

MAT 799 - Dissertation  
Credits 3-6

Research analysis and writing toward completion of dissertation and subsequent defense. A minimum of 18 dissertation credits is required for a degree program. Dissertation may be repeated but only a maximum of 36 credits may be used in students degree program.

**Grading** S/F grading only

**Prerequisites** Successful completion of qualifying examination and approval by department.

STA 750 - Time Series Analysis  
Credits 3

Topics include ARMA and ARIMA processes; autocorrelation and partial autocorrelation functions;

spectral density and periodogram; Yule-Walker equations; model fitting, forecasting and diagnostics; state-space models and the Kalman filter; multivariate time series; use of statistical software.

**Prerequisites** STA 667 or consent of instructor.

STA 663 - Applied Statistics for Engineers  
Credits 3

Elementary probability, commonly used discrete and continuous probability distributions, estimation and hypothesis testing, categorical data testing, regression, model building, analysis of variance, product and system reliability and engineering applications, and quality control.

**Notes** This course is crosslisted with STAT 463. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

STA 667 - Introduction to Mathematical Statistics  
Credits 3

Introduction to statistical inference, distributions of random variables, common discrete and continuous probability models, transformations limiting distributions, sufficiency, completeness, unbiasedness, the information inequality, unbiased estimation, the methods of moments, maximum likelihood estimation, Bayesian estimation, confidence intervals, hypothesis testing, uniformly most powerful tests, likelihood ratio tests and related procedures, linear models, and non-parametric models.

**Notes** This course is crosslisted with STAT 467. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

STA 669 - Environmental Statistics I: Univariate Methods  
Credits 3

Principles of environmental sampling, testing for

outliers, tests for normality, transformations for normality, sample size determinations, analysis of censored data, estimation of background contaminations, tolerance and confidence limits, calibration problem, quality control charts for data quality assessment of environmental data, statistical issues in environmental remediation, and probability of hot spot detection. Usage of statistical software packages.

**Notes** This course is crosslisted with STAT 469. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

STA 689 - Advanced Statistics Topics  
Credits 3

Graduate course in advanced topics in statistics, depending upon the interest of faculty and students.

**Notes** This course is crosslisted with STAT 489. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program.

STA 690 - Independent Study  
Credits 1-3

This course, when taught by a member of the graduate faculty, may be applied to a graduate program. For listings and a course description of this 600-level course, please consult the current Undergraduate Catalog under the corresponding 400 number.

**Notes** The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program. This course offered by another department may also be taken for graduate credit.



### STA 691 - Statistics for Scientists I

Credits 3

Frequency distributions, descriptive statistics, elementary probability; Bernoulli, binomial, and normal distributions; statistical sampling, estimation, and hypothesis testing.

**Notes** This course is crosslisted with STAT 491. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program. This course offered by another department may also be taken for graduate credit.

### STA 692 - Statistics for Scientists II

Credits 3

Chi-square tests for goodness-of-fit and independence, simple and multiple linear regression, designing an experiment (analysis of variance), multiple comparisons.

**Notes** This course is crosslisted with STAT 492. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program. This course offered by another department may also be taken for graduate credit.

### STA 693 - Applied Regression Analysis

Credits 3

Line fitting; multiple linear and curvilinear regression models; variable selection techniques and examination of residuals, estimation, testing, and prediction; simple, multiple, and partial correlation.

**Notes** This course is crosslisted with STAT 493. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate

credit in a biological sciences program. This course offered by another department may also be taken for graduate credit.

### STA 695 - Nonparametric Statistics

Credits 3

Survey of nonparametric procedures with emphasis on application; binomial, Mann-Whitney, Wilcoxon, Kruskal-Wallis, Friedman, Kolmogorov-Smirnov, and chi-square tests; measures of association; regression. Comparisons with parametric techniques.

**Notes** This course is crosslisted with STAT 495. Credit at the 600-level requires additional work. The 600-level MAT and STA courses that are normally available for graduate credit are those numbered 650 or higher; the exceptions are MAT 680, which may be counted for graduate credit in an education degree program, and STA 691, STA 693, and STA 695, which may be counted for graduate credit in a biological sciences program. This course offered by another department may also be taken for graduate credit.

### STA 713 - Experimental Design

Credits 3

Fundamental principles of analysis of variance; one-way, two-way, and higher order designs; nested designs; randomized blocks; split plot designs; Latin squares; multiple comparisons; analysis of covariance.

**Prerequisites** MATH 181 and one of the following: STAT 411, STA 663 and STA 693.

### STA 715 - Multivariate Statistical Methods

Credits 3

Multivariate techniques with emphasis on application. Topics include multivariate analysis of variance, discriminant analysis, canonical correlation and independence, principal component analysis, factor analysis, cluster analysis and analysis of repeated measurements.

**Prerequisites** MATH 181, MATH 463 and one of the following: STAT 411, STA 663, STA 691.

### STA 717 - Environmental Statistics

Credits 3

Testing for multivariate normality, data dependent transformations for multivariate normality, tests for outliers for multivariate data, multivariate control charts, exploratory data analysis of multivariate data

using principal components, cluster analysis, factor analysis, and multivariate calibration problems.

**Prerequisites** MATH 181 and one of the following: STAT 411, STA 663, STA 691.

STA 731 - Probability Theory and Its Applications  
Credits 3

Topics include: set theory, limits of sets, probability space, random variables, measurability, independence, expectation, probability inequalities, convergence, laws of large numbers, central limit theorem, moment generating functions, characteristic functions, large deviation theory, martingale theory, random walk.

**Prerequisites** MAT 657

STA 751 - Spatial Statistics  
Credits 3

Stochastic process, first and second order stationarity, intrinsic hypothesis, models of spatial dependence, different forms of Kriging — Ordinary Kriging, Universal Kriging, Probability Kriging, bicubic splines, conditional simulation.

**Prerequisites** STA 667 or consent of instructor.

STA 753 - Bayesian Data Analysis  
Credits 3

This course will present methods for statistical modeling and data analysis from a Bayesian perspective. Topics include: Bayes' Theorem, prior and posterior distributions, computational algorithms for posterior simulation, statistical software and programming, as well as model formulation and diagnostics for linear, generalized linear, and hierarchical models.

**Prerequisites** STA 667 or equivalent, or consent of instructor.

STA 755 - Stochastic Modeling I  
Credits 3

Probability theory, Markov chains in discrete and continuous time, the Poisson process, renewal theory, queueing theory, reliability theory, martingales, stationary processes, statistical inference for stochastic processes, and simulation techniques.

**Prerequisites** STA 667 or consent of instructor.

STA 756 - Stochastic Modeling II  
Credits 3

Probability theory, Markov chains in discrete and

continuous time, the Poisson process, renewal theory, queueing theory, reliability theory, martingales, stationary processes, statistical inference for stochastic process, and simulation techniques.

**Prerequisites** STA 755

STA 761 - Regression Analysis I  
Credits 3

Fitting a straight line, matrix theory, examining residuals, selecting the "best" fit, multiple regression, non-linear regressions, multivariate normal, estimation, classification, principal components, canonical correlation, distribution of characteristic roots.

**Prerequisites** STA 667 and MAT 663, or equivalent.

STA 762 - Regression Analysis II  
Credits 3

Fitting a straight line, matrix theory, examining residuals, selecting the "best" fit, multiple regression, non-linear regressions, multivariate normal, estimation, classification, variance-covariance matrix, testing sets of variates, principal components, canonical correlation, distribution of characteristic roots.

**Prerequisites** STA 667 and MAT 663 or equivalent.

STA 763 - Analysis of Variance I  
Credits 3

Special topics in matrix theory; noncentral chi-square, F, and t; the multivariate normal distribution; Cochran's theorem; point and interval estimation; one-, two-, three-, higher-way layouts; Latin squares, incomplete blocks and nested designs, analysis of covariance; random effects models; mixed models; randomization models.

**Prerequisites** STA 667 and MAT 663 or equivalent.

STA 764 - Analysis of Variance II  
Credits 3

Special topics in matrix theory; noncentral chi-square, F, and t; the multivariate normal distribution; Cochran's theorem; point and interval estimation; one-, two-, three-, higher-way layouts; Latin squares, incomplete blocks and nested designs, analysis of covariance; random effects models; mixed models; randomization models.

**Prerequisites** STA 667 and MAT 663 or equivalent.

STA 765 - Statistical Decision Theory  
Credits 3

Introduction to decision theory, decision rules, loss functions, risk functions, decision principles, utility theory, prior information and subjective probability, noninformative priors, the posterior distribution, conjugate families, predictive distribution, Bayesian estimators, generalized Bayes estimators, credible regions, hypothesis testing, admissibility of Bayes rules, robustness of Bayes rules, minimax analysis, invariance, Bayesian sequential analysis.

**Prerequisites** STA 667 or consent of instructor.

STA 767 - Mathematical Statistics I  
Credits 3

Basic probability theory, conditional probability, independence, random variables, probability distribution functions, distribution functions, transformations, function of random variables, expectations, moment generating functions, discrete and continuous distributions, exponential family, joint distribution, marginal distribution, modes of convergence, limiting distribution, random sample, sampling distribution, principle of data reduction.

**Prerequisites** STA 667 or consent of instructor.

STA 768 - Mathematical Statistics II  
Credits 3

Random sample, sampling theory, point estimation, sufficiency, likelihood, method of moment, maximum likelihood estimator, Bayes estimator, unbiasedness, optimality, decision theory, hypothesis testing, likelihood ratio tests, Bayes test, most powerful test, set estimation, evaluating interval estimators, sequential estimation, asymptotics, robustness, linear models.

**Prerequisites** STA 767

STA 789 - Topics in Advanced Statistics  
Credits 3

Graduate-level course in some field of statistics, depending upon the current interest of the faculty and the students.

**Notes** May be repeated to a maximum of six credits.

STA 790 - Independent Study  
Credits 1 – 3

Library research and reports on topics of statistical interest.

**Notes** May be repeated to a maximum of six credits with consent of the department.

STA 791 - Thesis  
Credits 3 – 6

**Notes** May be repeated but only six credits applied to the student's program.

**Grading** S/F grading only.

STA 792 - Research Seminar  
Credits 1

Oral presentation of assigned articles.

**Notes** May be repeated to a maximum of four credits.

STA 793 - Techniques of Statistical Consulting  
Credits 1 – 3

Seminar series and practicum covering technical and nontechnical aspects of statistical consulting, including skills for effective communication with clients, report writing, issues in sampling and design of experiments, and other statistical tools commonly used in a consulting setting.

**Notes** May be repeated to a maximum of six credits.

STA 799 - Dissertation  
Credits 3-6

Research analysis and writing toward completion of dissertation and subsequent defense. A minimum of 24 dissertation credits is required for the degree program. Dissertation may be repeated but only a maximum of 36 credits may be used in students degree program.

**Prerequisites** Successful completion of qualifying examination and approval by department.

## Physics & Astronomy

The Physics Department offers M.S. and Ph.D. degrees in physics, with concentrations in three research areas: laser physics, high pressure physics (in collaboration with LLNL and LANL), and condensed matter physics. The Physics Department also offers M.S. and Ph.D. degrees in Astronomy. The astronomers make use of space telescopes such as the Hubble Space Telescope, Swift, Chandra X-ray Observatory and XMM-Newton Observatory, etc. to conduct research. The department's experimental research programs are supported by fully equipped laboratories and mechanical, electronic and glass shops. The department is well equipped with state-of-the-art computing facilities, which allow for performing virtually any modeling and computer simulation.

*Stephen Lepp, Ph.D., Chair*  
*Victor Kwong, Ph.D., Graduate Coordinator*

## Physics and Astronomy Faculty

### Chair

**Lepp, Stephen** - *Full Graduate Faculty*  
Professor; B.S., University of Minnesota; M.A., Ph.D., University of Colorado, Boulder. *Rebel since 1991.*

### Graduate Coordinator

**Kwong, Victor H.** - *Full Graduate Faculty*  
Professor; B.S., Queen's University; M.S., University of Windsor; Ph.D., University of Toronto. *Rebel since 1984.*

### Graduate Faculty

**Chen, Changfeng** - *Full Graduate Faculty*  
Professor; B.S., Ph.D., Peking University. *Rebel since 1990.*

**Cornelius, Andrew** - *Full Graduate Faculty*  
Professor; B.S., Drake University; Ph.D., Washington University. *Rebel since 1999.*

**Farley, John W.** - *Full Graduate Faculty*  
Professor; B.A., Harvard College; M.A., Ph.D., Columbia University. *Rebel since 1987.*

**Kumar, Ravhi**  
Associate Research Professor; Ph.D., Anna University, Chennai.

**Lepp, Stephen H.** - *Full Graduate Faculty*  
Professor; B.S., University of Minnesota; M.A., Ph.D., University of Colorado, Boulder. *Rebel since 1991.*

**Pang, Tao** - *Full Graduate Faculty*  
Professor; B.S., Fudan University; Ph.D., University of Minnesota. *Rebel since 1991.*

**Pravica, Michael** - *Full Graduate Faculty*  
Associate Professor; B.S., Cal Tech; A.M., Ph.D., Harvard University. *Rebel since 2003.*

**Proga, Daniel** - *Full Graduate Faculty*  
Associate Professor; M.S., Nicolaus Copernicus University; Ph.D. Nicolaus Copernicus Astronomical Center. *Rebel since 2005.*

**Rhee, George** - Full Graduate Faculty

Associate Professor; B.A., Cambridge University; M.Sc., Leiden University; M.A., Cambridge University; Ph.D., Leiden University. *Rebel since 1993.*

**Selser, James C.** - Full Graduate Faculty

Professor; B.S., U.S. Air Force Academy; M.S., Ph.D., University of California, Davis. *Rebel since 1981.*

**Shelton, David P.** - Full Graduate Faculty

Professor; B.A., M.S., Ph.D., University of Manitoba. *Rebel since 1988.*

**Zhang, Bing** - Full Graduate Faculty

Professor; B.S., M.S., Ph.D., Peking University. *Rebel since 2004.*

**Zhao, Yusheng** - Full Graduate Faculty

Professor; B.S., M.S., Peking University; Ph.D., University of California, Berkely. *Rebel since 2010.*

**Zygelman, Bernard** - Full Graduate Faculty

Professor; B.S., Ph.D., City College of New York. *Rebel since 1990.*

**Professor Emeritus**

**Cloud, Stan**

Emeritus Professor; B.S. Stanford University; M.S., Ph.D., Duke University. *UNLV Emeritus 1980-2005.*

**Pyper-Smith, Diane** - Full Graduate Faculty

Associate Professor; A.B., University of California, Berkeley; Ph.D., University of California, Santa Cruz.

**Weistrop, Donna E.**

Emeritus Professor; B.A., Wellesley College; Ph.D., California Institute of Technology. *UNLV Emeritus 1990-2005.*

**Zane, Len**

Emeritus Professor; B.S., City College of New York; Ph.D. Duke University. *UNLV Emeritus 1973-2011.*

## Doctor of Philosophy - Astronomy

### Plan Description

The purpose of the Astronomy M.S. and Ph.D. degrees are to prepare students for a career in Astronomy or Astrophysics Research or in education at the university level. The program achieves this with a custom program for each student set up by their advisor and their advising committee. In the case of the Ph.D. the research must be original research conducted independently by the student.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. Applicants must have an undergraduate degree or a Masters degree in Physics, Astronomy or related area.
2. Applicants must have a minimum GPA of 2.75 for all undergraduate work or a minimum 3.00 GPA for the last two years of undergraduate work.
3. Applicants seeking direct admission to the doctoral program without a previously earned Master of Science degree must have a score in the 65th percentile or above on the Advanced Physics portion of the GRE before admission and have a minimum GPA of 3.00 for all undergraduate work or an overall 3.25 GPA for the last two years of undergraduate work.
4. Applicants with a Master's degree must have an overall 3.00 GPA in their Master's program and at least 15 credit hours of graduate-level course work in physics or astronomy with a grade of B or better. A student entering with a Master's degree will be required to complete at least 30 additional credits, including dissertation credits, beyond the Masters.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Post-Bachelor's Track**

Total Credits Required: 60

Course Requirements

#### **Required Courses – Credits: 9**

AST 713 - Astrophysics I  
AST 714 - Astrophysics II  
PHYS 700 - Mathematical Physics I

#### **Theory Course – Credits: 3**

Complete one of the following courses:

PHYS 702 - Classical Mechanics I  
PHYS 711 - Electromagnetic Theory I  
PHYS 721 - Quantum Theory I

#### **Astronomy Courses – Credits: 9**

Complete three of the following courses:

AST 710 - Observational Astronomy Techniques  
AST 721 - Astrophysics of Gaseous Nebulae and Active Galactic Nuclei  
AST 725 - High Energy Astrophysics  
AST 727 - Cosmology  
AST 731 - Stellar Atmospheres: Theory, Observation, and Analysis  
AST 747 - Interstellar Medium  
PHYS 771 - Advanced Topics in Experimental and Theoretical Physics

#### **Graduate Seminar Course – Credits: 6**

Complete 6 credits of the following course, including three acceptable presentations.

PHYS 796 - Graduate Seminar

#### **Elective Courses – Credits: 15**

Complete 15 credits of 600- or 700-level AST or PHYS courses, or other advisor-approved courses.

#### **Dissertation – Credits: 18**

PHYS 799 - Doctoral Dissertation

Degree Requirements

1. The student must complete a minimum of 60 credits.
2. A minimum grade of B- is required in each course. An overall GPA of 3.00 or better is required in all course work which is part of the degree program.
3. Satisfactory performance on an astronomy qualifying examination on graduate astronomy knowledge. This requirement must be fulfilled by the second year in the program. Students who fail to pass the exam within the specified timeline will be placed on academic probation and will be allowed one retake of the exam. Failure to pass the retake or meet the requirements of academic probation will result in separation.
4. A dissertation of high quality consisting of significant original research.
5. Satisfactory performance on a final examination which will consist of an oral defense of the dissertation.

Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 2 Requirements: Post-Master's Track**

Total Credits Required: 30

Course Requirements

#### **Required Courses – Credits: 0-9**

Complete 0-9 credits from the following list of courses:

AST 713 - Astrophysics I  
AST 714 - Astrophysics II  
PHYS 700 - Mathematical Physics I

### **Theory Course – Credits: 0-3**

Complete 0-3 credits from the following list of courses:

PHYS 702 - Classical Mechanics I  
PHYS 711 - Electromagnetic Theory I  
PHYS 721 - Quantum Theory I

### **Astronomy Courses – Credits: 0-9**

Complete 0-9 credits from the following list of courses:

AST 710 - Observational Astronomy Techniques  
AST 721 - Astrophysics of Gaseous Nebulae and Active Galactic Nuclei  
AST 725 - High Energy Astrophysics  
AST 727 - Cosmology  
AST 731 - Stellar Atmospheres: Theory, Observation, and Analysis  
AST 747 - Interstellar Medium  
PHYS 771 - Advanced Topics in Experimental and Theoretical Physics

### **Seminar Course – Credits: 0-6**

Complete 0-6 credits of the following, including three acceptable presentations.

PHYS 796 - Graduate Seminar

### **Dissertation – Credits: 18**

PHYS 799 - Doctoral Dissertation

### **Degree Requirements**

1. Students must take an advisor approved combination of the coursework listed above, completing a minimum of 30 credits. Additional credits may be required to address student deficiencies or build specialized expertise.
2. The total number of Required, Theory, Astronomy, and Seminar courses will be determined in consultation with the student's advisor.

3. A minimum grade of B- is required in each course. An overall GPA of 3.00 or better is required in all course work which is part of the degree program.
4. Satisfactory performance on an astronomy qualifying examination on graduate astronomy knowledge. This requirement must be fulfilled by the second year in the program. Students who fail to pass the exam within the specified timeline will be placed on academic probation and will be allowed one retake of the exam. Failure to pass the retake or meet the requirements of academic probation will result in separation.
5. A dissertation of high quality consisting of significant original research.
6. Satisfactory performance on a final examination which will consist of an oral defense of the dissertation.

### **Graduation Requirements**

*See Plan Graduation Requirements below.*

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must pass a qualifying exam and submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Doctor of Philosophy - Physics

### Plan Description

The purpose of the Physics M.S. and Ph.D. degrees are to prepare students for a career in Physics Research or in education at the university level. The program achieves this with a custom program for each student set up by their advisor and their advising committee. In the case of Ph.D. the students will be able to conduct these steps independently.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. Applicants seeking direct admission to the doctoral program without a previously earned Master of Science degree must have a score in the 65th percentile or above on the Advanced Physics portion of the GRE before admission. Applicants with a bachelor's degree in physics must have a minimum GPA of 3.00 for all undergraduate work or a 3.25 GPA for the last two years of undergraduate work, and a minimum of 18 credits of upper-division physics.
2. Applicants with a master's degree in physics must have at least 15 credit hours of graduate-level course work in physics with a grade of B or better and a 3.25 GPA in the master's program.
3. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

### Subplan 1 Requirements: Post-Bachelor's Track

Total Credits Required: 60

Course Requirements

#### Required Courses – Credits: 18

PHYS 700 - Mathematical Physics I  
PHYS 711 - Electromagnetic Theory I  
PHYS 712 - Electromagnetic Theory II  
PHYS 721 - Quantum Theory I  
PHYS 722 - Quantum Theory II  
PHYS 731 - Statistical Physics I

#### Elective Courses – Credits: 18

Complete 18 credits of 600- or 700-level AST or PHYS courses, or other advisor-approved courses.

#### Graduate Seminar Course – Credits: 6

Complete 6 credits of the following, including three acceptable presentations.

PHYS 796 - Graduate Seminar

#### Dissertation – Credits: 18

PHYS 799 - Doctoral Dissertation

Degree Requirements

1. Students must complete a minimum of 60 credits.
2. A minimum grade of B- is required in each course. An overall GPA of 3.00 or better is required on all course work that is part of the degree program.
3. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion.



Please see Graduate College policy for committee appointment guidelines.

4. Each student's advisory committee will carry out an annual review of the student's progress.
5. Course work taken outside the Physics & Astronomy Department must have departmental approval.
6. Satisfactory performance on a written qualifying examination on advanced undergraduate physics must be fulfilled during the first two years in the graduate program. Students who fail to pass the exam within the specified timeline will be placed on academic probation and will be allowed one retake of the exam. Failure to pass the retake or meet the requirements of academic probation will result in separation.
7. A dissertation of high quality. The doctoral dissertation reports the results of significant original research, performed independently by the student, written in lucid scientific prose.
8. Satisfactory performance on a final examination that will consist of an oral defense of the dissertation.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 2 Requirements: Post-Master's Track**

Total Credits Required: 30

#### Course Requirements

#### **Required Courses – Credits: 6-18**

Complete 6-18 credits from the following list of courses:

PHYS 700 - Mathematical Physics I  
PHYS 711 - Electromagnetic Theory I  
PHYS 712 - Electromagnetic Theory II  
PHYS 721 - Quantum Theory I  
PHYS 722 - Quantum Theory II  
PHYS 731 - Statistical Physics I

#### **Graduate Seminar Course – Credits: 0-6**

Complete 0-6 credits of the following, including three acceptable presentations.

PHYS 796 - Graduate Seminar

#### **Dissertation – Credits: 18**

PHYS 799 - Doctoral Dissertation

#### Degree Requirements

1. Students must take an advisor approved combination of the coursework listed above, completing a minimum of 30 credits. Additional credits may be required to address student deficiencies or build specialized expertise.
2. The total number of Required Courses and Graduate Seminar Courses will be determined in consultation with the student's advisor.
3. A minimum grade of B- is required in each course. An overall GPA of 3.00 or better is required on all course work that is part of the degree program.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Each student's advisory committee will carry out an annual review of the student's progress.
6. Course work taken outside the Physics & Astronomy Department must have departmental approval.
7. Satisfactory performance on a written qualifying examination on advanced undergraduate physics must be fulfilled during the first two years in the graduate program. Students who fail to pass the exam within the specified timeline will be placed on academic probation and will be allowed one retake of the exam. Failure to pass the

retake or meet the requirements of academic probation will result in separation.

8. A dissertation of high quality. The doctoral dissertation reports the results of significant original research, performed independently by the student, written in lucid scientific prose.
9. Satisfactory performance on a final examination that will consist of an oral defense of the dissertation.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Master of Science - Astronomy

#### **Plan Description**

The purpose of the Astronomy M.S. and Ph.D. degrees are to prepare students for a career in Astronomy or Astrophysics Research or in education at the university level. The program achieves this with a custom program for each student set up by their advisor and their advising committee. At the M.S. level we have two options. A coursework M.S., wherein students take classes at the graduate level in Astronomy and pass an exam. We also offer a thesis option where students will learn to formulate, conduct and report on research.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

#### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

1. Applicants must have an undergraduate degree in Physics, Astronomy or other related area.
2. Applicants must have a minimum grade point average (GPA) of 2.75 for all undergraduate work or a minimum 3.00 GPA for the last two years of undergraduate work.
3. Applicants must have completed 18 semester credits of upper-division physics.
4. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

#### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Thesis Track**

Total Credits Required: 30

Course Requirements

#### **Required Courses – Credits: 24**

Complete 24 credits of 600- or 700-level AST or PHYS courses, or other advisor-approved courses.

#### **Thesis – Credits: 6**

PHYS 797 - Thesis

Degree Requirements

1. Complete a minimum of 30 graduate credits.
2. Complete a minimum of 15 credits (excluding thesis) in 700-level astronomy or physics courses.
3. A GPA of 3.00 or better is required in all course work which is part of the degree program.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete and defend a thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved

electronic version to ProQuest by the posted deadline.

### **Subplan 2 Requirements: Non-Thesis Track**

Total Credits Required: 30

Course Requirements

#### **Required Courses – Credits: 6**

AST 713 - Astrophysics I  
AST 714 - Astrophysics II

#### **Core Courses – Credits: 6**

Complete two of the following courses:

AST 710 - Observational Astronomy Techniques  
AST 721 - Astrophysics of Gaseous Nebulae and Active Galactic Nuclei  
AST 725 - High Energy Astrophysics  
AST 727 - Cosmology  
AST 747 - Interstellar Medium  
PHYS 771 - Advanced Topics in Experimental and Theoretical Physics

#### **Elective Courses – Credits: 18**

Complete 18 credits of 600- or 700-level AST or PHYS courses, or other advisor-approved courses.

Degree Requirements

1. Complete a minimum of 30 graduate level credits in physics, astronomy, or related fields (excluding graduate seminar).
2. Complete at least 15 credits of 700-level astronomy or physics courses.
3. A GPA of 3.00 or better in all course work which is part of the degree program.
4. In consultation with his/her advisor, a student will organize an advisory committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

5. Satisfactory performance on an astronomy qualifying examination on graduate astronomy knowledge at the master's level.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must pass a qualifying examination.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

## Master of Science - Physics

### Plan Description

The purpose of the Physics M.S. and Ph.D. degrees are to prepare students for a career in Physics Research or in education at the university level. The program achieves this with a custom program for each student set up by their advisor and their advising committee. At the M.S. level students will learn to formulate, conduct and report on research.

**For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. Applicants must have a minimum GPA of 2.75 for all undergraduate work or a 3.00 GPA for the last two years of undergraduate work.
2. The applicant must have completed 18 semester credits of upper-division undergraduate physics.
3. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 30

Course Requirements

#### Required Courses – Credits: 24

Complete 24 credits of 600- or 700-level AST or PHYS courses, or other advisor-approved courses.

## Thesis – Credits: 6

### PHYS 797 - Thesis

#### Degree Requirements

1. A minimum of 30 graduate credits is required, including a minimum of 15 credits (excluding thesis) in 700-level courses.
2. A GPA of 3.00 or better is required in all course work which is part of the degree program.
3. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

#### Plan Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete and defend a thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Physics and Astronomy Courses

### AST 710 - Observational Astronomy Techniques Credits 3

Techniques used in observational astronomy. Students plan and execute an observing program on a research grade telescope. Data reduction and analysis using standard professional software packages and procedures.

**Prerequisites** Graduate standing.

### AST 713 - Astrophysics I Credits 3

Laws of physics applied to astrophysical situations. **Notes** Major topics include solar physics, element synthesis, stellar evolution, end states of stars.

**Prerequisites** Graduate standing.

### AST 714 - Astrophysics II Credits 3

Laws of physics applied to astrophysical situations. **Notes** Major topics include interstellar medium, the Milky Way, active galaxies, galaxy clusters, the Big Band.

**Prerequisites** Graduate standing.

### AST 721 - Astrophysics of Gaseous Nebulae and Active Galactic Nuclei Credits 3

Theory and observations used to determine the physical conditions in gaseous nebulae (H II regions, planetary nebulae, supernova remnants, etc.) and active galactic nuclei. Formation of spectra in these regions and analysis to determine temperatures, density and chemical composition. Recent observational results also discussed.

**Same as** Previously known as PHYS 777

**Prerequisites** Graduate standing.

### AST 723 - Astrophysical Fluids Credits 3

Physics of fluids applied to astrophysical situations. Major topics include single-fluid theory, waves, shocks, fronts, magnetohydrodynamics, and plasma physics.

### AST 725 - High Energy Astrophysics Credits 3

Introduction of high energy astrophysics. Theory to understand high energy phenomena in the universe, including radiation mechanisms and various energy power sources (accretion, nuclear, spindown, magnetic). Objects include neutron stars, black holes, bursters. Brief introduction of neutrino, cosmic ray, and gravitational astrophysics.

AST 727 - Cosmology

Credits 3

Classical cosmology, the isotropic universe, gravitational lensing the age and distance scales, the early universe, observational cosmology, matter in the universe, galaxies and their evolution, active galaxies, galaxy formation and clustering, cosmic background fluctuations.

**Same as** Previously known as PHYS 777

**Prerequisites** Graduate standing.

AST 729 - Galaxies

Credits 3

Observation and theoretical basis for our current understanding of galactic astronomy. Major topics include Morphology of Galaxies, the Milky Way, equilibria of collisionless systems, spiral structure, and dark matter.

**Prerequisites** Graduate standing.

AST 731 - Stellar Atmospheres: Theory, Observation, and Analysis

Credits 3

Theoretical treatment of stellar atmospheric structure and radiative transfer, state-of-the-art astrophysical analysis techniques used to derive atmospheric parameters, our current observational understanding of stellar atmospheres, special topics in stellar atmospheres (pulsation, chromospheric activity, etc.), and relevance to galactic and extragalactic astronomy.

**Prerequisites** Graduate standing.

AST 747 - Interstellar Medium

Credits 3

Physics of the interstellar medium. Overall chemical, thermal and physical state of the gas in our galaxy. Astrochemistry, cosmic rays, radiative transfer, atomic and molecular physics, thermal equilibrium, and the overall dynamics of the galaxy.

**Same as** Previously known as PHYS 771

**Prerequisites** Graduate standing.

PHYS 604 - Computational Techniques in Physics  
Credits 3

Application of numerical methods to simulation of physical systems, including topics in classical mechanics, electrostatics, quantum mechanics, scattering, nonlinear dynamics and chaos.

**Notes** This course is crosslisted with PHYS 404. Credit at the 600-level requires additional work.

PHYS 614 - Intermediate Laboratory II

Credits 3

Further experimental investigations of phenomena in classical and modern physics. Emphasis on problem solving, experimental technique, data analysis, and independent work. Students encouraged to alter or extend the experiments and engage in projects.

**Notes** This course is crosslisted with PHYS 414. Credit at the 600-level requires additional work.

PHYS 622 - Electricity and Magnetism

Credits 3

Electrostatics, magnetic fields, and electromagnetism. Maxwell's equations, theory of metallic conduction, motion of charged particles, radiation.

**Notes** This course is crosslisted with PHYS 422. Credit at the 600-level requires additional work.

PHYS 624 - Mechanics

Credits 3

Newtonian mechanics. Mathematical formulation of the dynamics of a particle and systems of particles, including applications to atomic physics. Mechanics of continuous media using Fourier series.

Introduction to generalized coordinates and the methods of Lagrange and Hamilton.

**Notes** This course is crosslisted with PHYS 424. Credit at the 600-level requires additional work.

PHYS 626 - Physics of Solids

Credits 3

Structure of crystalline solids. Mechanical, thermal, and electric properties of conducting and non-conducting solids.

**Notes** This course is crosslisted with PHYS 426. Credit at the 600-level requires additional work.

PHYS 631 - Nuclear and Elementary Particle Physics

Credits 3

Survey of basic nuclear concepts and structure.

Interactions between nuclear radiations and matter,

nuclear reactions and decay, nuclear force, sub-atomic structure and models, symmetries and conservation laws.

**Notes** This course is crosslisted with PHYS 431. Credit at the 600-level requires additional work.

#### PHYS 641 - Mathematical Physics I

Credits 3

Application of selected mathematical techniques to problems in physics.

**Notes** This course is crosslisted with PHYS 441. Credit at the 600-level requires additional work.

#### PHYS 642 - Mathematical Physics II

Credits 3

Application of selected mathematical techniques to problems in physics.

**Notes** This course is crosslisted with PHYS 642. Credit at the 600-level requires additional work.

#### PHYS 651 - Modern Scientific Instrumentation

Credits 3

Electronics for scientists, including circuit design and construction using analog and digital integrated circuits. Introduction to machining, glassblowing, and fabrication techniques.

**Notes** This course is crosslisted with PHYS 451. Credit at the 600-level requires additional work.

#### PHYS 661 - Light and Physical Optics

Credits 3

Survey of geometric optics and optical instruments. Selected topics in physical optics including interference, diffraction and polarization, with applications; the nature of light.

**Notes** This course is crosslisted with PHYS 461. Credit at the 600-level requires additional work.

#### PHYS 662 - Modern Optics and Photonics

Credits 3

Laser principles and applications. Non-linear optics, image formation, optical transfer function, and Fourier optics. Introduction to quantum optics.

**Notes** This course is crosslisted with PHYS 462. Credit at the 600-level requires additional work.

#### PHYS 667 - Thermodynamics

Credits 3

Fundamentals of thermodynamics, including equations of state, laws of thermodynamics, and

entropy. Principles and methods of temperature measurement, calorimetry and heat transfer.

**Notes** This course is crosslisted with PHYS 467. Credit at the 600-level requires additional work.

#### PHYS 668 - Statistical Mechanics

Credits 3

Principles and applications of statistical mechanics. Quantum statistics of ideal gas and simple solids. Transport theory, irreversible processes and fluctuations.

**Notes** This course is crosslisted with PHYS 668. Credit at the 600-level requires additional work.

#### PHYS 681 - Quantum Mechanics I

Credits 3

Introduction to the Schroedinger Equation and the interpretation of its solutions, the uncertainty principles, one-dimensional problems, harmonic oscillator, angular momentum, the hydrogen atom.

**Notes** This course is crosslisted with PHYS 481. Credit at the 600-level requires additional work.

#### PHYS 682 - Quantum Mechanics II

Credits 3

Introduction to the matrix formulation of quantum mechanics, spin, coupling of angular momenta and applications. Time dependent perturbation theory and approximation methods and techniques discussed.

**Notes** This course is crosslisted with PHYS 482. Credit at the 600-level requires additional work.

#### PHYS 683 - Special Topics in Physics

Credits 3

Special topics in physics such as, but not limited to, relativity, plasma physics, hydrodynamics, and particle physics.

**Notes** This course is crosslisted with PHYS 483. Credit at the 600-level requires additional work.

#### PHYS 685 - Condensed Matter Physics

Credits 3

Properties of condensed matters and their applications in materials science. Structures of classical and quantum liquids. Correlations in lower dimensional systems. Localization and magnetism. Superconductivity and superfluidity. Polymers and liquid crystals.

**Notes** This course is crosslisted with PHYS 485. Credit at the 600 level-requires additional work.

PHYS 700 - Mathematical Physics I

Credits 3

Reviews and introduces various specific mathematical functions and techniques basic to the study of physics.

PHYS 701 - Mathematical Physics II

Credits 3

Reviews and introduces various specific mathematical functions and techniques basic to the study of physics.

PHYS 702 - Classical Mechanics I

Credits 3

Newtonian mechanics from an advanced point of view. Variational principles. Lagrange's and Hamilton's equations, central forces, rigid body motion, canonical transformations, Hamilton-Jacobi theory, small oscillations.

PHYS 703 - Classical Mechanics II

Credits 3

Newtonian mechanics from an advanced point of view. Variational principles. Lagrange's and Hamilton's equations, central forces, rigid body motion, canonical transformations, Hamilton-Jacobi theory, small oscillations.

PHYS 705 - Advanced Optical Systems

Credits 3

Analysis and design of complete optical systems. Light sources and detectors. Matrix methods. Characteristics and application of optical components including lenses, mirrors, fibers, filters, holographic elements, prisms, and gratings. Apertures, stops, and pupils. Fourier optics.

**Prerequisites** PHYS 461 or equivalent; graduate standing or consent of instructor.

PHYS 707 - Condensed Matter Theory I

Credits 3

Comparison of different band structure calculation methods. Local-density approximation. Relation of structural, transport, and optical properties to electronic structure. Properties of metals, insulators and semiconductors. Quantum theory of magnetism.

**Prerequisites** PHYS 482/682, PHYS 483/683 and graduate standing.

PHYS 708 - Condensed Matter Theory II

Credits 3

Lattice dynamics. Electron-photon interaction. Elementary excitations. Many-body effects in condensed matter physics. Superconductivity. Phase transitions. Renormalization group theory.

**Prerequisites** PHYS 707 and graduate standing.

PHYS 711 - Electromagnetic Theory I

Credits 3

General properties of vector fields with special application to electrostatic and magnetostatic fields. Solutions to boundary value problems. General electromagnetic equations and conservation theorems. Energy and momentum in the electromagnetic field. Motions of charged particles in electromagnetic fields. Electromagnetic theory of radiation electrodynamics and special relativity. Reflection, refraction, and dispersion of electromagnetic waves.

**Prerequisites** PHYS 422/PHYS 622 and graduate standing.

PHYS 712 - Electromagnetic Theory II

Credits 3

General properties of vector fields with special application to electrostatic and magnetostatic fields. Solutions to boundary value problems. General electromagnetic equations and conservation theorems. Energy and momentum in the electromagnetic field. Motions of charged particles in electromagnetic fields. Electromagnetic theory of radiation electrodynamics and special relativity. Reflection, refraction, and dispersion of electromagnetic waves.

**Prerequisites** PHYS 422/PHYS 622 and graduate standing.

PHYS 721 - Quantum Theory I

Credits 3

Development of quantum theory. Schroedinger equation, operators, expectation values. Matrix formalism of Heisenberg, eigenvalue problems, wave packets, conjugate variables, and uncertainty principle. Solution of wave equation for square potentials, harmonic oscillator, and hydrogen-like atoms. Perturbation theory, both time-independent and time-dependent. Degeneracy, interaction of matter with radiation, selection rules. Scattering



theory, Born approximation and other approximation methods. Dirac notation and an introduction to spin.

**Prerequisites** PHYS 482/PHYS 682 and graduate standing.

#### PHYS 722 - Quantum Theory II

Credits 3

Development of quantum theory. Schroedinger equation, operators, expectation values. Matrix formalism of Heisenberg, eigenvalue problems, wave packets, conjugate variables, and uncertainty principle. Solution of wave equation for square potentials, harmonic oscillator, and hydrogen-like atoms. Perturbation theory, both time-independent and time-dependent. Degeneracy, interaction of matter with radiation, selection rules. Scattering theory, Born approximation and other approximation methods. Dirac notation and an introduction to spin.

**Prerequisites** PHYS 482/PHYS 682 and graduate standing.

#### PHYS 723 - Quantum Optics

Credits 3

Properties of light, its creation, and its interaction with matter explored as quantum-mechanical phenomena. Quantization of the light field. Quantum theory of coherence. Dissipation and fluctuations. Light amplification. Nonlinear optics.

**Prerequisites** PHYS 622 and PHYS 682/PHYS 721, or consent of instructor.

#### PHYS 724 - Laser Applications: Interaction with Matter

Credits 3

Laser principles. Introduction to laser spectroscopy, isotope separation, and trace element analysis. Laser induced fusion. Laser induced plasmas and their radiation.

**Prerequisites** Graduate standing or consent of instructor.

#### PHYS 725 - Spectroscopy

Credits 3

Survey of spectroscopy, including absorption and emission spectroscopy, classical grating spectroscopy, laser spectroscopy, Raman spectroscopy, and Fourier transform spectroscopy. Intensities, sensitivity limits, and resolution. High-resolution and ultra-high-resolution spectroscopy. Photon correlation spectroscopy. Analysis of spectra.

**Prerequisites** PHYS 461/PHYS 661, PHYS 481/PHYS 681 and graduate standing.

#### PHYS 726 - Advanced Quantum Theory

Credits 3

The Dirac equation, hole theory, second quantization, Feynman diagrams, self-energy, vacuum polarization, renormalization, QED effects in high-Z atoms, path integral methods in field theory.

**Prerequisites** PHYS 722 and graduate standing.

#### PHYS 727 - Advanced Topics in Semiconductor Devices I

Credits 3

Topics of current interest in solid state electronic devices: physics of semiconductors, thermal and optical and electronic properties of semiconductors, bipolar junction devices, field effect devices, surface related effects, optoelectronic devices, semiconductor lasers. Applications and the design of circuits using these devices. Intended for electrical and electronic engineers, physicists, and qualified senior students in engineering and physics.

**Prerequisites** PHYS 411 and PHYS 683, or EEG 414 and EEG 420, and consent of instructor.

#### PHYS 728 - Applications of Group Theory in Quantum Mechanics

Credits 3

Abstract group theory, theory of group representations, and direct product theory. Relationship to quantum mechanics; applications to atomic, molecular and solid state physics. Time-reversal symmetry, continuous groups, and the symmetric group.

**Prerequisites** PHYS 482/PHYS 682 and graduate standing.

#### PHYS 731 - Statistical Physics I

Credits 3

Liouville's theorem, ensembles, Boltzmann and Gibbs methods. Non-ideal gases, cluster expansions, theory of condensation.

**Prerequisites** PHYS 467, 468 and graduate standing.

#### PHYS 732 - Statistical Physics II

Credits 3

Quantum statistical mechanics, Fermi-Dirac and Bose-Einstein statistics. Phase transitions.

Fluctuations.

**Prerequisites** PHYS 731 and graduate standing.

PHYS 741 - Atomic and Molecular Theory  
Credits 3

Hartree-Fock theory, many-body perturbation theory, relativistic effects, energy levels, oscillator strengths, bound-continuum processes, Born-Oppenheimer approximation for molecules, symmetries, selection rules.

**Prerequisites** PHYS 721 and graduate standing.

PHYS 771 - Advanced Topics in Experimental and Theoretical Physics  
Credits 3

Consists of lectures dealing with experimental and theoretical aspects of one of the fields listed. a) Electrodynamics. b) Fluid mechanics. c) Plasma physics. d) Quantum theory. e) Nuclear physics. f) Atomic and molecular physics. g) Electron and ion physics. h) Low-temperature physics. i) Solid and/ or liquid state. k) Cosmic rays. l) Relativity. m) Elementary particles. p) Astrophysics. r) Atmospheric Physics. s) Geophysics. t) Applied Optics.

**Notes** May be repeated for credit in different fields to a maximum of 12 credits.

**Prerequisites** Depends on particular topic, consult instructor.

PHYS 777 - Advanced Special Problems  
Credits 1 – 6

Special study of advanced topics not specifically covered in listed courses.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Prior conference with instructor.

PHYS 781 - Thesis Research  
Credits 1

Research leading to master's level program prospectus.

**Notes** May be repeated but only one credit can be applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** Enrollment in the M.S. Program.

PHYS 782 - Dissertation Research  
Credits 1

Supervised research prior to advancement to candidacy in the doctoral program.

**Notes** May be repeated but only two credits can be applied to the student's program. A maximum of one credit is allowed per semester.

**Grading** S/F grading only.

**Prerequisites** Enrollment in the doctoral program.

PHYS 796 - Graduate Seminar  
Credits 1

Students required to give presentations on topics outside their Ph.D. work and to discuss the presentations. Presentations by graduate students given on a regularly scheduled basis, last about an hour, and given at the nonspecialist level.

**Notes** A total of three acceptable presentations in three different semesters during the six semesters of enrollment required. May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing.

PHYS 797 - Thesis  
Credits 3 – 6

**Notes** May be repeated but only six credits will be applied to the student's program.

**Grading** S/F grading only.

PHYS 799 - Doctoral Dissertation  
Credits 3 – 6

Doctoral dissertation.

**Notes** May be repeated. A minimum of 18 credits required for the degree.

**Prerequisites** Qualifying exam and approval by department.

## **Water Resources Management**

The Water Resources Management Program is a flexible, interdisciplinary course of study leading to an M.S. degree. It is a technically and scientifically based program that blends the physical aspects of the hydrologic sciences, in a broader sense, with policy and management issues in hydroscience. People with degrees in physical, biological, or natural sciences and engineering and those with degrees in the social sciences, management, environmental studies, or related disciplines are encouraged to apply to the program. Working together, the student and faculty advising committee will design specific courses of study or thesis topics such that all students will strengthen their understanding of hydrologic sciences and water management while also developing technical skills.

The Water Resources Management Graduate Program is housed in the College of Sciences and encourages multidisciplinary study and research with participating faculty at UNLV from the colleges of Sciences, Business, Urban Affairs, Engineering, and Liberal Arts and participating faculty at the Harry Reid Center for Environmental Studies (HRC) on the UNLV campus, the Desert Research Institute (DRI), and the University of Nevada, Reno (UNR). Adjunct participating faculty may also be with the U.S. Environmental Protection Agency (EPA), the U. S. Geological Survey (USGS), Department of Energy (DOE), Las Vegas Valley Water District (LVVWD), the Bureau of Reclamation (BOR) or other governmental or private agencies.

*Michael Nicholl, Ph.D., Director, Graduate Coordinator*

## **Water Resources Management Faculty**

### **Director**

**Nicholl, Michael J.**- *Full Graduate Faculty Associate Professor; B.S., Eastern Michigan University; M.S., Ph.D., University of Nevada, Reno. Rebel since 2004.*

### **Graduate Coordinator**

#### **Papelis, Charalambos**

Associate Research Professor; B.S., National Technical University, Athens, Greece; M.S., Ph.D., Stanford University. *Rebel since 1994.*

### **Graduate Faculty**

Faculty participating in the Water Resources Management Graduate Program (WRM) are affiliated with several different colleges, departments, and centers of UNLV and the NSHE. Researchers from governmental or private agencies may also participate as adjunct faculty. A list of participating faculty can be found at the website of the WRM Graduate Program at <http://sciences.unlv.edu/wrm>.

## Master of Science - Water Resources Management

### Plan Description

The Water Resources Management (WRM) program in the College of Sciences at the University of Nevada, Las Vegas is a flexible, interdisciplinary course of study leading to a Master of Science degree. It is a technically and scientifically based program that blends the physical aspects of the hydrologic sciences with policy and management issues.

The WRM program is designed to encourage a multidisciplinary approach to learning. Students enter the program from a wide variety of undergraduate programs, then take classes and conduct research with faculty in the Colleges of: Sciences, Business, Urban Affairs, Engineering, and Liberal Arts at UNLV, plus the Boyd School of Law and the Desert Research Institute. Students in the WRM program also work with participating faculty from federal, state, and local government agencies.

**For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applicants to the program must hold a B.S. or B.A. degrees in the physical, natural or social sciences, business, management, or a related field.

1. A minimum overall undergraduate grade point average of 3.00.
2. Submission of an online application.
3. Transcripts of all college-level course work.
4. Three letters of recommendation from individuals competent to comment on the applicant's promise as a graduate student.
5. A letter of application stating the student's interests and goals.

6. Satisfactory scores on the Graduate Record Exam. This requirement may be waived in the case of candidates with exceptional professional experience.

Items 3-5 should be uploaded as part of the online application.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Refer to the Graduate College website for current deadlines.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### Subplan 1 Requirements: Thesis Track

Total Credits Required: 33

Course Requirements

#### Required Course – Credits: 3

Complete one of the following courses:

WRM 706 - Research Methods in Water Resources Management

GEOL 701 - Research Methods in Geoscience

#### Hydrologic Sciences Courses – Credits: 6

Complete 6 credits of advisor-approved GEOL or CEE courses.

#### Additional Science Course – Credits: 3

Complete 3 credits of advisor-approved science, mathematics or engineering (BIOL, CEE, CHEM, GEOL, MAT, ME, PHYS, STA) courses.

#### Administrative Courses – Credits: 9

Complete 9 credits of advisor-approved management, public administration, economics, law, or political science (ECO, ENV, HIST, LAW, MGT, MIS, PSC, PUA) courses.

#### **Elective Courses – Credits: 6**

Complete 6 credits of advisor-approved BIOL, CEE, CHEM, ECO, ENV, GEO, HIST, LAW, MAT, ME, MGT, MIS, PHYS, PSC, PUA, or STA courses.

#### **Thesis – Credits: 6**

WRM 798 - Thesis

#### **Degree Requirements**

1. Completion of a minimum of 33 credit hours with a minimum GPA of 3.00.
2. A minimum of 15 credit hours must be in 700-level courses.
3. Because of the interdisciplinary nature of the Water Resources Management Graduate Program, students are encouraged to select courses from different departments that would strengthen their background and help them achieve their research and educational goals.
4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Students must develop their course work program with the consent of the advisor and the student's advisory committee. Courses from different colleges and departments may be incorporated into the student's program of study. Students should consult the listings of individual departments.
6. There will be a final examination that will include a comprehensive oral examination.

#### **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 2 Requirements: Non-Thesis Track**

Total Required Credits: 36

#### **Course Requirements**

#### **Required Course – Credits: 3**

Complete one of the following courses:

WRM 706 - Research Methods in Water Resources Management

GEOL 701 - Research Methods in Geoscience

#### **Hydrologic Sciences Courses – Credits: 6**

Complete 6 credits of advisor-approved GEOL or CEE courses.

#### **Additional Science Courses – Credits: 6**

Complete 6 credits of advisor-approved science, mathematics or engineering (BIOL, CEE, CHEM, GEOL, MAT, ME, PHYS, STA) courses.

#### **Administrative Courses – Credits: 12**

Complete 12 credits of advisor-approved management, public administration, economics, law, or political science (ECO, ENV, HIST, LAW, MGT, MIS, PSC, PUA) courses.

#### **Elective Courses – Credits: 6**

Complete 6 credits of advisor-approved BIOL, CEE, CHEM, ECO, ENV, GEO, HIST, LAW, MAT, ME, MGT, MIS, PHYS, PSC, PUA, or STA courses.

## Professional Paper – Credits: 3

### WRM 796 - Professional Paper in WRM

#### Degree Requirements

1. Completion of a minimum of 36 credit hours with a minimum GPA of 3.00.
2. A minimum of 15 credit hours must be in 700-level courses.
3. Because of the interdisciplinary nature of the Water Resources Management Graduate Program, students are encouraged to select courses from different departments that would strengthen their background and help them achieve their research and educational goals.
4. In consultation with his/her advisor, a student will organize a committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Students must develop their course work program with the consent of the advisor and the student's advisory committee. Courses from different colleges and departments may be incorporated into the student's program of study. Students should consult the listings of individual departments.
6. There will be a final examination that will include a comprehensive oral examination.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete and defend a professional paper.

## Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

## Water Resources Management Courses

### WRM 706 - Research Methods in Water Resources Management

Credits 3

Discussion of the processes of scientific research and research design as applied to modern water resources management. Includes scientific approaches to field and laboratory research, research and professional ethics, writing, and public presentation. Model thesis prospectus and grant proposals prepared.

**Prerequisites** Graduate standing or consent of instructor.

### WRM 790 - Special Topics in Water Resources Management

Credits 1 – 3

Topics selected and published in the class schedule.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Consent of instructor.

### WRM 791 - Independent Study

Credits 1 – 3

Review of recent literature in a specialized area related to water resources.

**Notes** May be repeated to a maximum of four credits.

**Prerequisites** Consent of instructor.

### WRM 796 - Professional Paper in WRM

Credits 1-6

Professional paper preparation, including review of literature or similar research effort.

**Notes** May be repeated to a maximum of three credits. Not permitted for students pursuing the M.S. Thesis option.

**Prerequisites** Consent of instructor.

### WRM 798 - Thesis

Credits 1 – 3

Enrollment by consent of research director only.

**Notes** May be repeated for credit with cumulative maximum of six credits allowed toward degree program.

**Grading** S/F grading only.

## **Greenspun College of Urban Affairs**

The world is experiencing its highest rate of urbanization. As a result, cities are experiencing rapid change, challenges, and opportunities. There is a need for safe, resilient communities, effective government and policy, civil discourse, effective and ethical journalism, healthy families, and effective urban support structures for behavioral and/or mental health needs. Graduate students in the Greenspun College of Urban Affairs are encouraged to learn about urban contexts through their coursework, research, and practice. By learning through cutting edge curriculum, engaging in community partnerships, and interacting with a high quality faculty, students have the opportunity to develop solutions for individuals, families, and urban communities.

--Robert Ulmer, Dean, Greenspun College of Urban Affairs

The Greenspun College of Urban Affairs currently houses\*:

### Four Ph.D. programs in:

Criminology  
Environmental Science  
Public Affairs  
Workforce Development and Leadership

### Four M.A. degrees in:

Communication Studies  
Criminal Justice  
Journalism and Media Studies  
Urban Leadership

### Two M.S. degrees in:

Environmental Science  
Marriage and Family Therapy

### Two professional master degrees in:

Public Administration (MPA)  
Social Work (MSW)

### Two executive master degrees in:

Criminal Justice  
Crisis and Emergency Management

### Two graduate certificate programs in:

Non-profit Management  
Public Management

### A Dual Master and Professional Degree

Master of Social Work (MSW) and Juris Doctorate (JD)

\*please contact respective program graduate coordinators regarding current degree and curriculum offerings

## Communication Studies

The Department of Communication Studies offers the Master of Arts degree in Communication Studies with emphases in interpersonal and rhetorical studies. Courses of study are designed both for students with a career orientation — in such diverse arenas as politics, education, law, public service, the ministry, and media relations — and for those who aspire to continue their education in doctoral programs.

All students are required to take four introductory courses: survey of communication studies, rhetorical-critical research methods, empirical research methods, and theories of communication (COM 710, 711, 712, and 730 ). Graduate teaching assistants are required to take an additional course about college teaching in communication in their first semester (COM 725 or prior to being admitted to the program if a spring admit). Yet, because each student's goals are unique, the curriculum allows flexibility in developing individual degree programs. Such development aims to balance the communication discipline's varied traditions in theoretical, historical, and applied research, with particular attention to the changing communication culture of the twenty-first century.

*David Henry, Ph.D., Chair*

*Donovan Conley, Ph.D., Graduate Coordinator*

## Communication Studies Faculty

### Chair

**Henry, David** - *Full Graduate Faculty*

Professor; B.A., University of California, Berkeley; M.A., University of California, Davis; Ph.D., Indiana University. *Rebel since 1998.*

### Graduate Coordinator

**Conley, Donovan S.** - *Full Graduate Faculty*

Associate Professor; B.A., University of Lethbridge, Alberta; M.A., Ph.D., University of Illinois, Urbana-Champaign. *Rebel since 2004.*

### Graduate Faculty

**Emmers-Sommer, Tara.** - *Full Graduate Faculty*

Professor and Associate Dean of Research and Graduate Education, Greenspun College of Urban Affairs; B. A., M. A., University of Wisconsin, Milwaukee; Ph.D., Ohio University. *Rebel since 2006.*

**Engstrom, Erika** - *Full Graduate Faculty*

Professor; B.A., M.A., University of Central Florida; Ph.D., University of Florida. *Rebel since 1991.*

**Guthrie, Jennifer** - *Full Graduate Faculty*

Assistant Professor; B.A., University of Missouri-Kansas City; M.A., Ph.D., University of Kansas. *Rebel since 2013.*

**McManus, Tara** - *Full Graduate Faculty*

Assistant Professor; B.A., University of Kentucky; M.A., University of Cincinnati; Ph.D., Pennsylvania State University. *Rebel since 2008.*

**Thompson, Jacob** - *Full Graduate Faculty*

Faculty in Residence; Sanford J. Berman Debate Forum, Faculty in Residence; B.A., Wayne State University; M.A., Ph.D., University of Kansas. *Rebel since 2007.*

**VanderHaagen, Sara** - *Full Graduate Faculty*

Assistant Professor; B.A., Calvin College; M.A., Ph.D., Northwestern University. *Rebel since 2012.*

### Professors Emeriti



**Blythin, Evan**

Emeritus Associate Professor; A.A., Palomar Junior College; B.A., M.A., San Diego State University; Ph.D., University of Colorado. *UNLV Emeritus 1998.*

**Jensen, Richard Jay**

Professor and Senior Advisor to the President; B.S., Weber State College; M.A., University of Arizona; Ph.D., Indiana University. *UNLV Emeritus 1992.*

**Watson, Martha**

Emeritus Professor; B.A., Rice University; M.A., Ph.D., University of Texas at Austin. *UNLV Emeritus 1997.*

## Master of Arts - Communication Studies

### Plan Description

The Master of Arts program in the Department of Communication Studies brings together scholars interested in the various aspects of interpersonal communication and rhetorical studies. The program prepares you for careers in the private sector, government agencies, or further educational opportunities. Recent graduates have been accepted to top doctoral programs throughout the country.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Students have the choice of doing original research leading to the writing of a thesis or completing a program of course work leading to a comprehensive examination. Programs of study are designed to meet the student's individual, professional or personal objectives. Although an undergraduate degree in communication is not required for admission to the program, a student without a background in communication may be required to complete course work in addition to the minimum requirements.

- The Department of Communication Studies accepts applicants only in the fall semester of each year.
- Review of applications starts January 15.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Thesis Track**

Total Credits Required: 36

#### Course Requirements

All students enrolled in the program are required to complete core courses in their first year.

#### **Core Courses – Credits: 12**

COM 710 - Survey of Communication Studies  
COM 711 - Rhetorical-Critical Research Methods  
COM 712 - Empirical Research Methods  
COM 730 - Theories of Communication

#### **Elective Courses – Credits: 18**

Complete 18 credits of electives. A maximum of 6 credits can be taken outside the Department of Communication Studies.

#### **Thesis – Credits: 6**

COM 797 - Thesis

#### Degree Requirements

1. A student must complete a minimum of 30 credit hours of approved course work plus six hours of thesis credits. The classes may include six credits outside the Department of Communication Studies. An oral examination on the thesis is required.
2. Graduate teaching assistants are required to take COM 725 – College Teaching in Communication during their first semester.
3. The Graduate Studies Coordinator will be the advisor for all entering students. Before completing 16 credit hours, the student should select a permanent advisor. The permanent advisor will work with the student through the completion of the program. The student's advisor must approve all course work.
4. Acceptable course work is defined as any class in which a student receives a grade of B- or higher. Any required course graded

C+ or below will not be included in the candidate's degree program.

5. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
6. The defense of the thesis may result in any of three decisions: pass, pass with further edits, no pass. The most common of these three results is the pass with further edits decision. These edits may range from simple editing of style, grammatical errors, and so forth, to extensive rewrites of entire sections of the thesis. The committee may decide to either "sign off" on the thesis or not at the time of this decision depending on the extent of the edits. The committee may also want to see the final edits or not. Signing off on the thesis means that the committee agrees to sign the appropriate forms for the completion of the thesis. Again, they may do that at the time of the defense, or at a later time after edits are completed.
  - a. If the thesis passes outright, then the student will have no further edits except those that the Graduate College may request. The committee signs off on the thesis at the time of the defense.
  - b. In the event that the student's thesis is not passed, the student will, at that time be severed from the program and will not be granted a Master of Arts degree.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline.

The defense must be advertised and is open to the public.

3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 2 Requirements: Examination Track**

Total Credits Required: 36

#### Course Requirements

All students enrolled in the program are required to complete core courses in their first year.

#### **Core Courses – Credits: 12**

COM 710 - Survey of Communication Studies  
COM 711 - Rhetorical-Critical Research Methods  
COM 712 - Empirical Research Methods  
COM 730 - Theories of Communication

#### **Elective Courses – Credits: 24**

Complete 24 credits of electives. A maximum of 6 credits can be taken outside the Department of Communication Studies.

#### Degree Requirements

1. A student must complete a minimum of 36 credit hours of approved course work. No more than six hours may be taken outside the Department of Communication Studies.
2. Graduate teaching assistants are required to take COM 725 – College Teaching in Communication during their first semester.
3. Students must pass a comprehensive written examination. The examination lasts eight hours and is given over two consecutive days. A Graduate Education Portfolio is also required of exam track students (the specifics of the portfolio are outlined in the Department of Communication Studies Graduate Handbook, which is available upon request).
4. The Graduate Studies Coordinator will be the advisor for all entering students. Before

completing 16 credit hours, the student should select a permanent advisor. The permanent advisor will work with the student through the completion of the program. The student's advisor must approve all course work.

5. Acceptable course work is defined as any class in which a student receives a grade of B- or higher. Any required course graded C+ or below will not be included in the candidate's degree program.
6. The oral defense of the examination must take place within one week of completing the written examination.
  - a. In the case where a student receives a Pass with Conditions involving a minor rewrite, these rewrites must be completed within two weeks of notification. Examination Committee members will again have the same time limits as specified above.
  - b. A student must retake a failed examination within one year and successfully pass it to receive his or her degree. A second failure on the examination automatically results in the student's termination from the program.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must pass a comprehensive written examination.

### **Subplan 3 Requirements: Scholarly Research Project Track**

Total Credits Required: 36

#### Course Requirements

All students enrolled in the program are required to complete core courses in their first year.

#### **Core Courses – Credits: 12**

COM 710 - Survey of Communication Studies  
COM 711 - Rhetorical-Critical Research Methods  
COM 712 - Empirical Research Methods  
COM 730 - Theories of Communication

### **Elective Courses – Credits: 24**

Complete 24 credits of electives. A maximum of 6 credits can be taken outside the Department of Communication Studies.

### **Degree Requirements**

1. The Scholarly Research Project Track entails the completion of 36 credits of course work, construction of a Graduate Education Portfolio, and development of an original research project for submission to a scholarly meeting and/or scholarly journal.
2. Graduate teaching assistants are required to take COM 725 – College Teaching in Communication during their first semester.
3. Students select a four-person committee: three departmental faculty, one of whom serves as chair, and one Graduate College representative. Students prepare and defend a prospectus by September 15 of the second year of their program, work primarily with the committee chair through development of the paper, and meet with the full committee by April 1 for a formal presentation and defense of the project.
4. The Graduate Studies Coordinator will be the advisor for all entering students. Before completing 16 credit hours, the student should select a permanent advisor. The permanent advisor will work with the student through the completion of the program. The student's advisor must approve all course work.
5. Acceptable course work is defined as any class in which a student receives a grade of B- or higher. Any required course graded C+ or below will not be included in the candidate's degree program.
6. Scholarly Research Projects may be assessed as Pass, Pass with revisions, or Not Pass. Revisions may include—but are not limited to—minor stylistic changes, investigating Committee members' questions

about substantive claims, revising sections of the argument, and so on. In some cases Committee members may want to see the final revisions; in other instances they may entrust the Chair to act on the Committee's behalf. In both cases, and when the initial judgment is Pass, Committee members will sign the required Graduate College documents the day of the Presentation. In cases that require more elaborate revision, or when a performance is assessed as Not Pass, the Committee will delineate the necessary course/s of action before the student leaves the Defense.

### **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete and defend a scholarly research paper.

### **Plan Graduation Requirements**

*Refer to your subplan for Graduation Requirements.*

## Communication Studies Courses

COM 601 - The Rhetoric of Women's Rights, 1832-1920

Credits 3

Examination of the rhetorical campaign for woman suffrage and women's rights from the early nineteenth century up to passage of the 19th amendment to the U.S. Constitution in 1920. Emphasis on identifying, understanding, and evaluating major rhetorical strategies in their historical context.

**Prerequisites** Graduate standing.

COM 603 - Public Communication

Credits 3

Examination of public communication in terms of form, context, people, messages, and delivery. Particular focus on the ethics of public communication.

**Notes** This course is crosslisted with COM 403. Credit at the 600-level requires additional work.

COM 604 - Principles of Persuasion

Credits 3

Examination of the principles involved in influencing groups and individuals.

**Notes** This course is crosslisted with COM 404. Credit at the 600-level requires additional work.

COM 607 - Communication Between the Sexes

Credits 3

Introduction to gender research in communication, studying ways in which language, interpersonal communication, the media, and various social institutions influence conceptions of gender.

**Same as** WMST 407.

**Notes** This course is crosslisted with COM 407. Credit at the 600-level requires additional work.

COM 610 - Advanced Topics in Relational Communication

Credits 3

This course will examine contemporary topics and processes relevant to communication in personal relationships. To improve understanding of the communication process and its implications for the development, maintenance, and termination of close personal relationships, current theory and research

will be incorporated. The course will enhance critical thinking and analytical skills.

COM 613 - Argumentation

Credits 3

Study of advanced argumentation theories and implementation of argumentation practice.

COM 614 - Famous Speeches

Credits 3

Study of the role of public address in American history. Emphasis on speeches which had a significant effect on American history.

**Notes** This course is crosslisted with COM 414. Credit at the 600-level requires additional work.

**Prerequisites** Graduate Standing.

COM 615 - Marital & Family Communication

Credits 3

This course introduces graduate students to communication processes that occur in the context of marital and family relationships. We will examine definitions of the family, the roles of family members, various types of families that comprise modern society, and a number of current issues that affect families. Students will also become more familiar with communication theory and research both at the disciplinary level but also in the particular area of family communication.

COM 625 - Rhetoric and Public Memory

Credits 3

This course explores how we use rhetoric to construct, circulate, and contest shared representations of the past. Students will gain an understanding of the foundational concepts in memory studies through class readings and discussions, and they will gain skills of critical, rhetorical analysis by applying these concepts in writing projects.

**Notes** May not be repeated for credit.

**Grading** Letter Grade

COM 634 - Conflict Management

Credits 3

Examination of various types and sources of conflict in interpersonal relationships, the management and resolution of these conflicts through various decision-making models. Practical application of theory

emphasized in various classroom exercises.

**Notes** This course is crosslisted with COM 434.  
Credit at the 600-level requires additional work.

COM 641 - Rhetoric of Dissent  
Credits 3

Description and analysis of public discourse by agitators and those opposed to agitation. Focus on significant movements for change in recent American history.

**Notes** This course is crosslisted with COM 441.  
Credit at the 600-level requires additional work.

COM 682 - Security Discourse  
Credits 3

In a globalized world the ways in which national security is discussed profoundly affects the public life of all individuals. This class examines the language, arguments and practices related to security policy, including but not limited to topics such as the rhetorics of American foreign policy, war, terrorism and nuclear arms.

**Notes** This course is crosslisted with COM 482.  
Credit at the 600-level requires additional work.

COM 684 - Political Communication  
Credits 3

Analysis of historical and contemporary political discourse. Addresses such topics as presidential rhetoric, electoral campaigns, ethics in political culture, institutional leadership, publics and public opinion, mediated political speech, legislative debates, political socialization.

**Notes** This course is crosslisted with COM 484.  
Credit at the 600-level requires additional work.

COM 706 - Seminar in Intercultural Communication  
Credits 3

Study of theoretical, methodological, practical and service foundations of intercultural communication. Examines complexities and implications of the relationship of culture and communication.

COM 710 - Survey of Communication Studies  
Credits 3

Survey of communication disciplines and their interrelationships; past, contemporary, and emerging issues; appropriate research topics, questions, methods, and style.

COM 711 - Rhetorical-Critical Research Methods  
Credits 3

Methods of describing, analyzing, interpreting, and judging public discourse. Study critical theory and practice. Research and write original critical essays.

COM 712 - Empirical Research Methods  
Credits 3

Fundamentals of scientific philosophy, research design, and data analysis; writing and critiquing research reports.

COM 725 - College Teaching in Communication  
Credits 3

Discussion of theory and practice in the teaching of communication in college, particularly entry-level courses.

**Notes** Required of all graduate teaching assistants.  
**Prerequisites** Graduate standing.

COM 730 - Theories of Communication  
Credits 3

Exploration and explanation of communication phenomena. Survey of theoretical ideas, nature of theory in general, major communication theories and theories relevant to communication, and examines purpose of theory in communication research.

**Prerequisites** Graduate standing.

COM 741 - Social Movements as Rhetorical Form  
Credits 3

Rhetorical approaches to the study of social movements, examining communicative processes and symbolic action involved in social change. Focuses on theoretical and methodological issues in movement studies as well as on rhetorical documents and practices of several social movements.

**Prerequisites** Consent of instructor.

COM 780 - Persuasion  
Credits 3

Study of theories and applications of persuasion in various fields of social, political, business, religious, and educational activities.

COM 781 - Seminar in Argumentation  
Credits 3

Examines field of argument from its roots in classical Aristotelian rationalism to modern practical reasoning perspectives. Argumentation in

interpersonal and public contexts emphasized.

**Prerequisites** Consent of instructor.

COM 784 - Political Communication

Credits 3

Study of relationship of rhetorical communication theory to political discourse. Focus on political campaigns, presidential rhetoric, and media influences.

COM 789 - Selected Topics in Communication

Credits 3

Content varies with current developments in communication theory.

**Notes** May be repeated to a maximum of six credits with instructor's permission.

**Prerequisites** Consent of instructor.

COM 793 - Independent Study

Credits 1 – 3

Supervised study and practical experience in subjects and projects determined in consultation with a faculty member. Students wishing to take this course must consult with the faculty member prior to registration.

**Notes** May be repeated to a maximum of three credits.

COM 794 - Special Readings

Credits 3

Content dependent upon the instructor's interest and expertise, as well as student interest and requirements.

COM 797 - Thesis

Credits 3

This course is approved for use in graduate programs for Master of Arts candidates.

**Notes** May be repeated but only six credits applied to the student's program.

**Grading** S/F grading only.

## Criminal Justice

The Department of Criminal Justice offers a broad-based graduate program leading to the Master of Arts degree. The program addresses issues of crime and criminal justice within an analytical framework and emphasizes theory and research and their implications for social policy. The curriculum is grounded in the social and behavioral sciences and in legal approaches to crime and social control. It draws from contemporary research and theoretical developments across a spectrum of academic disciplines.

The graduate program in criminal justice offers two degree options. The Traditional Master of Arts degree is designed to prepare students for doctoral studies in the field and in related areas of the social and behavioral sciences. Those who obtain this degree may also assume teaching positions at the community college level. The Professional Master's degree is designed to serve the needs of professionals currently working in justice-related agencies by providing the knowledge and skills to enhance their performance in current positions and/or prepare them for career advancement. Both degrees require a minimum of 36 semester hours of study. Students enrolled in the Traditional Master of Arts degree track are required to complete a scholarly thesis. Students seeking the Professional Master's degree must pass a comprehensive examination.

*Joel Lieberman, Ph.D., Chair*

*Tamara D. Madensen, Ph.D., Graduate Coordinator*

## Criminal Justice Faculty

### Chair

**Lieberman, Joel D.** - *Full Graduate Faculty*  
Professor; B.A., State University of New York at  
Stony Brook; M.A., Ph.D., University of Arizona.  
*Rebel since 1997.*

### Graduate Coordinator

**Madensen, Tamara D.** - *Full Graduate Faculty*  
Associate Professor; B.A., M.A., California State  
University, San Bernardino; Ph.D., University of  
Cincinnati. *Rebel since 2008.*

### Graduate Faculty

**Hangawatte, Karu**  
Assistant Professor; LL.B. University of Ceylon;  
M.A., Ph.D., University of New York at  
Albany. *Rebel since 1984.*

**Kennedy, M. Alexis** - *Full Graduate Faculty*  
Associate Professor; B.A., University of Toronto;  
LL.B., University of Manitoba; M.A., Ph.D.,  
University of British Columbia. *Rebel since 2005.*

**Lu, Hong** - *Full Graduate Faculty*  
Professor; LL.B., Law School, Fudan University;  
M.A., Indiana University; Ph.D., Arizona State  
University. *Rebel since 1998.*

**Miethe, Terance D.** - *Full Graduate Faculty*  
Professor; B.A., Western Washington State College;  
M.A., Western Washington University; Ph.D.,  
Washington State University. *Rebel since 1993.*

**Pinchevsky, Gillian** - *Full Graduate Faculty*  
Assistant Professor; B.A., University of Florida,  
Gainesville; M.A., University of Maryland, College  
Park; Ph.D., University of South Carolina, Columbia.  
*Rebel since 2013*

**Rorie, Melissa L.** - *Full Graduate Faculty*  
Professor; B.A., California State at Los Angeles;  
M.A., Memphis State University; Ph.D., Southern  
Illinois University at Carbondale. *Rebel since 2013.*

**Shelden, Randall G.** - *Full Graduate Faculty*  
Professor; B.A., California State at Los Angeles;

M.A., Memphis State University; Ph.D., Southern  
Illinois University at Carbondale. *Rebel since 1977.*

**Sousa, William H.** - *Full Graduate Faculty*  
Associate Professor; B.A., Stonchill College; M.S.,  
Northeastern University; Ph.D., Rutgers University.  
*Rebel since 2004.*

**Troshynski, Emily I.** - *Full Graduate Faculty*  
Assistant Professor; B.A., University of St. Thomas;  
M.Sc., London School of Economics and Political  
Science; Ph.D., University of California,  
Irvine. *Rebel since 2011.*



## Master of Arts - Criminal Justice

### Plan Description

The Traditional Master of Arts degree program is designed to improve a student's understanding of the nature, causes, and consequences of crime and crime control. Based on the tradition of the liberal arts, the program emphasizes the symbiotic relationship between crime and the structure of society and the interplay between criminal justice theory and practice. These relationships are explored through course work in criminological theory, law and social control, the administration of justice, and crime and public policy. By completing the requirements for this program, students will be prepared for teaching at the community college level and doctoral study in crime and criminal justice.

Designed for the full-time criminal justice professional, the Professional Master's Degree Program in Criminal Justice provides students with advanced knowledge of the nature of crime, criminal justice institutions and processes, current criminal justice policy and training in research methods, statistics, and program evaluation. The program will also be open to students seeking a terminal master's degree and a career in the criminal justice system. Upon completion of the program, students will have furthered their understanding of crime, the criminal justice system, and be able to conduct evaluations of policies and programs within various agencies in the justice system. This program is structured so that enrolled students can complete the program in two years of part-time study (six credit hours per regular semester and six credit hours during the summer sessions). Recognizing most full-time professionals have schedules that often preclude attendance during regular class times, the program utilizes a variety of distance education techniques, including prerecorded and compressed video, and online instruction.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

Learning outcomes for specific subplan tracks can be found below:

- Master of Arts - Criminal Justice; Professional
- Master of Arts - Criminal Justice; Traditional

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. An undergraduate degree from an institution with regional or national accreditation is required. Students are encouraged to complete some undergraduate course work related to criminal justice/criminology, and statistics in social sciences. A minimum GPA of 2.75 for all undergraduate work and a 3.00 for the last two years of undergraduate work is required for admission to the program.
2. The Graduate Record Examination (GRE) is required for admission.
3. A Criminal Justice Graduate Program Application Cover Page must be completed.
4. A statement of purpose for pursuing the Master of Arts Degree, addressing the student's particular interests in the field of criminal justice and his or her future academic and/or professional goals, must be provided at the time of application.
5. Two letters of recommendation are required. It is preferred that both letters be from professors from whom the applicant took the classes. If the applicant completed the undergraduate degree work within the past five years, it is required that at least one letter be from a professor, unless the applicant can document the reasons why a letter from a former professor is difficult to obtain. If the applicant completed the undergraduate degree work more than five years ago and is currently working in a criminal justice-related field, two letters may be obtained from the applicant's direct supervisor or co-workers. References from other sources will not be reviewed.
6. The admissions process requires submitting all information and materials through the UNLV Graduate College Online

Application. See the Criminal Justice Department website for more details.

7. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Traditional Track**

Total Credits Required: 36

Course Requirements

### **Required Courses – Credits: 18**

CRJ 700 - Proseminar in Criminal Justice  
CRJ 701 - Proseminar on Theory  
CRJ 702 - Proseminar on Research Methods  
CRJ 703 - Proseminar on Statistics  
CRJ 704 - Proseminar on Law and Social Control  
CRJ 705 - Proseminar on the Administration of Justice

### **Criminal Justice Elective Courses – Credits: 6**

Complete 6 credits of 600- or 700-level Criminal Justice courses. CRJ 716 and CRJ 799 may not be used to fulfill this requirement.

### **General Elective Courses – Credits: 6**

Complete 6 credits of 600- or 700-level courses. Courses may be from Criminal Justice, from the following approved list of electives, or by advisor-approval:

ANTH 746 - Gender, Sexuality, Race and Flexible Citizenship  
ENV 703 - Environmental Law and Policy Seminar  
LAW 639 - Feminist Jurisprudence  
LAW 642 - Law and Social Justice  
LAW 644 - Juvenile Law

LAW 646 - Cyberlaw  
LAW 653 - Criminal Procedure I  
LAW 658 - Immigration Law  
LAW 666 - Domestic Violence and the Law  
PSC 710R - Proseminar in American Politics  
PSC 713 - American National Government: Principles  
PSC 714 - American National Government: Structure and Processes  
PSC 719 - Advanced Studies in American Politics  
PSC 721 - Public Policy Process  
PSC 723 - Policy Analysis  
PSC 724 - Intelligence Policy  
PSC 725 - Policy Formation: The Problem of Legitimacy  
PSC 726 - National Security Policy  
PSC 729 - Advanced Studies in Public Policy  
PSC 731 - Civil Rights and Liberties  
PSC 732 - Constitutional Law  
PSC 733 - Public Law and Public Policy  
PSC 735 - Jurisprudence  
PSC 739 - Advanced Studies in Public Law  
PSC 740 - Proseminar in International Relations  
PSC 754 - Global Governance  
PSC 755 - International Security  
PSC 759 - Advanced Studies in International Relations  
PSC 760R - Proseminar in Comparative Politics  
PSY 704 - Social Psychology  
PSY 736 - Psychopathology  
SOC 701 - Logic of Social Inquiry  
SOC 704 - Advanced Analytical Techniques  
SOC 705 - Qualitative Methods  
SOC 719 - Seminar in Deviance and Disorganization  
SOC 723 - Classical Sociological Theory  
SOC 724 - Issues in Contemporary Sociological Theory  
SOC 741 - Graduate Seminar in Social Stratification  
SOC 742 - Sociology of Gambling  
SOC 748 - Gender, Sex, Society  
SOC 773 - Seminar in Drug Use and Abuse  
SOC 774 - Seminar in Feminist Theories and Research  
SW 701 - Social Welfare Policy I  
SW 715 - Human Behavior and the Social Environment I  
WMST 700 - Introduction to Women's Studies  
WMST 701 - Feminist Theory

**Thesis – Credits: 6**

CRJ 797 - Master's Thesis in Criminal Justice

## Degree Requirements

1. Complete a minimum of 36 credits at the 600- and 700-level with a minimum GPA of 3.00.
2. A maximum of 9 credits of 600-level course work is allowed.
3. Students may select up to 6 hours of approved graduate study in other social or behavioral sciences or in graduate programs formally approved by the department. An approved list of outside electives is available at the Criminal Justice website. Students must obtain an approval from Graduate Coordinator to take an outside elective course that is not on the approved list.
4. All students are required to write a thesis. The thesis will be written under the direction of a committee of three graduate faculty and chaired by a member of the faculty in Criminal Justice. One member of the thesis committee is a graduate faculty member from outside the Department of Criminal Justice. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Upon completion of the course work and thesis, an oral examination related to the general field and thesis is required of all students. The examination will be administered by the student's thesis committee and a representative from outside the department chosen by the Graduate College. The oral examination will assess:
  1. The student's competency in defending the substantive, theoretical, and methodological topics covered by the thesis.
  2. His or her general knowledge, including the ability to integrate topics covered by core and elective criminal justice classes and to

apply core fundamentals to important issues.

## Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 2 Requirements: Professional Track**

Total Credits Required: 36

## Course Requirements

**Required Courses – Credits: 18**

CRJ 700 - Proseminar in Criminal Justice  
 CRJ 701 - Proseminar on Theory  
 CRJ 702 - Proseminar on Research Methods  
 CRJ 703 - Proseminar on Statistics  
 CRJ 705 - Proseminar on the Administration of Justice  
 CRJ 715 - Criminal Justice Policy

**Criminal Justice Elective Courses – Credits: 9**

Complete 9 credits of 600- or 700-level Criminal Justice courses. CRJ 716 and CRJ 799 may not be used to fulfill this requirement.

**General Elective Courses – Credits: 6**

Complete 6 credits of 600- or 700-level courses. Courses may be from Criminal Justice, from the following approved list of electives, or by advisor-approval:

ACC 706 - Auditing Theory and Applications  
 BIOL 701 - Ethics in Scientific Research  
 BIOL 703 - Biochemical Genetics  
 CED 715 - Counseling and Consultation Theories  
 CED 732 - Advanced Multicultural Counseling  
 Substance Abuse Prevention and Treatment  
 CED 735 - Substance Abuse Prevention and Treatment  
 CED 745 - Assessment, Treatment, and Case Management in Addictions  
 CED 755 - Planning, Management, and Evaluation of Addictions and Mental Health Programs  
 CED 766 - Psychopathology and Wellness Models in Counseling  
 EPY 705 - Child Counseling

LAW 606 - Evidence  
 LAW 616 - Criminal Law  
 LAW 622 - Introduction to Gaming Law  
 MBA 771 - Law and Ethics  
 MFT 783 - Trauma and Abuse  
 PAF 701 - Origins and Development of Public Policy in America  
 PAF 702 - Role of Government in Society  
 PUA 701 - Governance and the Urban Community  
 PUA 705 - Public Goods and Public Finance  
 PUA 711 - Seminar in Administrative Behavior  
 PUA 715 - Administrative Law  
 PUA 718 - Career Development and Performance Appraisal in the Public Sector  
 PUA 751 - Origins and Development of Public Policy in America  
 SW 675 - Treatment of Addictions  
 ULD 701 - Leading Ethical Organizations  
 ULD 730 - Leading in Diverse Communities

**Comprehensive Exam – Credits: 3**

CRJ 796 - Comprehensive Examination

Degree Requirements

1. Completion of a minimum of 36 credits at the 600- and 700-level with a minimum GPA of 3.00.
2. A maximum of 9 credits of 600-level courses can be used toward the degree.
3. Students may take a maximum of 9 total credits of Independent Study and/or Graduate Readings for use toward the degree.

Graduation Requirements

*See Plan Graduation Requirements below.*

**Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully pass a comprehensive exam.

**Criminal Justice Courses**

CRJ 605 - History of Criminal Justice

Credits 3

Historical development of criminal justice. Several eras reviewed, including the colonial period (up to 1815), nineteenth century, early twentieth century (up to 1940), and the modern era (1940-present).

**Notes** This course is crosslisted with CRJ 405.

Credit at the 600-level requires additional work.

CRJ 611 - Comparative Criminal Justice Systems

Credits 3

Analysis of the development, function, and problems of foreign criminal justice systems. Emphasis on comparisons to the American system.

**Notes** This course is crosslisted with CRJ 411.

Credit at the 600-level requires additional work.

CRJ 628 - Women and Crime

Credits 3

Women as offenders and as processed through the criminal justice system; women as victims and the response of the criminal justice system and the community.

**Same as** WMST 428

**Notes** This course is crosslisted with CRJ 428.

Credit at the 600-level requires additional work.

CRJ 636 - Sociology of Law

Credits 3

Study of the social nature of law, the relationship of law to social organization, law as a mechanism of social change, and the interrelationship between social factors and legal processes.

**Notes** This course is crosslisted with CRJ 436.

Credit at the 600-level requires additional work.

CRJ 641 - Social Science in Law

Credits 3

Use of social science as a tool for a legal analysis. Examines the utility of empirical research in determining substantive legal issues such as community defenses, the use of offender profiles in criminal procedure, the death penalty and the size of juries.

**Notes** This course is crosslisted with CRJ 441.  
Credit at the 600-level requires additional work.

CRJ 700 - Proseminar in Criminal Justice  
Credits 3

Provides an introduction to graduate studies in Criminal Justice. Students are exposed to information regarding the main components of the criminal justice system, including: law enforcement, courts, and the correctional system.

**Prerequisites** Graduate standing in criminal justice.

CRJ 701 - Proseminar on Theory  
Credits 3

History of criminological thought. Contemporary and classical theories of crime. Attention to social, cultural, and psychological perspectives.

**Prerequisites** Graduate standing in criminal justice or consent of instructor.

CRJ 702 - Proseminar on Research Methods  
Credits 3

Methods and applications of quantitative and qualitative research. Relationships among theory, research, and social policy. Development and interpretation of research reports.

**Prerequisites** Graduate standing in criminal justice or consent of instructor and satisfactory completion of an undergraduate course in research methods.

CRJ 703 - Proseminar on Statistics  
Credits 3

Univariate and multivariate techniques. Use of computerized statistical packages in the social and behavioral sciences. Practical applications in statistical problem-solving using primary and secondary data sources.

**Prerequisites** Graduate standing in criminal justice or consent of instructor and satisfactory completion of an undergraduate statistics course.

CRJ 704 - Proseminar on Law and Social Control  
Credits 3

Nature of law and legal institutions. Relationships between law and other forms of social control. Theory and research on the development and implementation of law.

**Prerequisites** Graduate standing in criminal justice or consent of instructor.

CRJ 705 - Proseminar on the Administration of Justice  
Credits 3

Structures, functions, and operations of criminal justice organizations. Formal and informal organizational structures and their relationships to the broader social, political, and legal institutions.

**Prerequisites** Graduate standing in criminal justice or consent of instructor.

CRJ 706 - Seminar on the Nature of Crime  
Credits 3

Investigation of selected theoretical perspectives and particular types of crime and criminality.

**Notes** Specific subject matter varies by semester. May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing in criminal justice or consent of instructor.

CRJ 707 - Policing  
Credits 3

Police organization and subculture, occupational socialization, police community relations, occupational deviance, policy formation, and related issues discussed.

**Notes** Specific subject matter varies by semester.

**Prerequisites** Graduate standing in criminal justice or consent of instructor.

CRJ 708 - Seminar on Law and Legal Process  
Credits 3

Development and implementation of criminal law. May focus on issues related to the legislative process, the criminal courts, case law, and legal reform.

**Notes** Specific subject matter varies by semester. May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing in criminal justice or consent of instructor.

CRJ 709 - Delinquency and Juvenile Justice  
Credits 3

Historical development and current practices of juvenile courts and treatment institutions. Emphasis on the relationship between delinquency theory, research, and policy formulation, with particular attention to programs of delinquency prevention.

**Prerequisites** Graduate standing in criminal justice or consent of instructor.

CRJ 710 - Crime and Its Control in Gambling  
Credits 3  
Analytical approach to patterns of gambling in America, nature of organized crime involvement, and development and implementation of forms of social control of organized crime in the area. Particular attention given to patterns of crime and regulatory control in Nevada gambling.

**Prerequisites** Graduate standing in criminal justice or consent of instructor.

CRJ 711 - Criminological Research  
Credits 3

Correlates of crime and theory-based research on crime causation. Implications for the major theoretical perspectives.

**Prerequisites** CRJ 701 and CRJ 702, graduate standing in criminal justice or consent of instructor.

CRJ 712 - Punishment and Corrections  
Credits 3

Philosophies and practices of punishment and corrections. Contemporary theory, the prison environment, work and rehabilitation programs, parole, overcrowding, capital punishment, and alternatives to imprisonment.

**Prerequisites** Graduate standing in criminal justice or consent of instructor.

CRJ 713 - Victimization  
Credits 3

Problems confronted by victims of crime. The role of the victim in criminal offenses. Policy, advocacy issues, and victims' rights.

**Prerequisites** Graduate standing in criminal justice or consent of instructor.

CRJ 714 - Theory Construction  
Credits 3

Types of theory and levels of theoretical analysis. Empirical, logical, and conceptual considerations in the construction of theory. Problems and prospects for theoretical integration and the development of general theory.

**Prerequisites** CRJ 701 and CRJ 702, Graduate standing in criminal justice, consent of instructor.

CRJ 715 - Criminal Justice Policy  
Credits 3

Contemporary policies in criminal justice.

Relationships among theory, policy, and practice. Attention to public opinion, legislative process, law enforcement administration, the courts, appellate review, issues of intergroup conflict, and civil rights.

**Prerequisites** Graduate standing in criminal justice or consent of instructor.

CRJ 716 - Graduate Readings in Criminal Justice  
Credits 3

With faculty supervision, students pursue a personalized program of readings related to specific issues in criminal justice.

**Prerequisites** CRJ 701 and CRJ 702 and Graduate standing in criminal justice or consent of instructor.

CRJ 724 - Applied Research in Criminal Justice  
Credits 3

Survey of research and statistical methods appropriate for evaluating criminal justice programs. Nature and role of program evaluation; impact and process assessment; presentation and interpretation of statistical results, ethics and politics of evaluation research.

**Prerequisites** CRJ 701, CRJ 702, CRJ 703

CRJ 733 - Criminal Justice Teaching Practicum  
Credits 3

Provides an overview of effective teaching and mentoring strategies for those who will teach in justice-related fields. Emphasis is placed on developing learning activities that build discipline-specific skills and support clear course objectives.

**Prerequisites** Graduate standing in criminal justice or consent of instructor.

CRJ 794 - Doctoral Comprehensive Examination  
Credits 3

Doctoral students must pass a written comprehensive examination designed to test students' ability to synthesize a body of knowledge in criminology and criminal justice. May be repeated up to six credits.

**Grading** Satisfactory/Fail

**Prerequisites** Department approval

CRJ 795 - Dissertation  
Credits 1-9

Research, analysis, and writing toward completion of the dissertation and preparation for subsequent oral defense. Students are required to complete eighteen credits for their doctoral degree; may register for

additional credits that will not count toward degree.

**Grading** S/F grading only

**Prerequisites** Department consent

CRJ 796 - Comprehensive Examination

Credits 3

As part of the requirements for the Professional Degree Program, students must pass a written comprehensive examination designed to test students' ability to synthesize a body of knowledge in criminal justice.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** CRJ 700, CRJ 702, CRJ 703, CRJ 705

CRJ 797 - Master's Thesis in Criminal Justice

Credits 3 or 6

Development of a research design and analysis of data relating to an issue of theoretical and empirical significance. Students expected to display the ability to integrate the elements of the core courses and related program of study.

**Notes** May be repeated to a maximum of six credits.

**Grading** S/F grading only.

**Prerequisites** CRJ 701, CRJ 702, CRJ 703, CRJ 704, and CRJ 705 and Graduate standing in criminal justice, consent of instructor.

CRJ 798 - Applied Project in Criminal Justice

Credits 3

Research application in criminal justice or an evaluation of a specific criminal justice program.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** CRJ 701, CRJ 702, CRJ 703, CRJ 704, CRJ 705, and CRJ 724

CRJ 799 - Independent Study in Criminal Justice

Credits 3 or 6

Directed research on an issue of contemporary significance in criminal justice, culminating in the development of a research paper.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** CRJ 701 and CRJ 702 and Graduate standing in criminal justice or consent of instructor.

## Hank Greenspun School of Journalism & Media Studies

The Hank Greenspun School of Journalism and Media Studies offers the Master of Arts degree, a course of study designed to emphasize methodological and theoretical exploration in various areas of journalism, and in the form and content of media. JMS courses help students acquire tools for conducting graduate-level research and for producing scholarship. The curriculum also caters to those with a professional orientation, allowing these students to investigate areas such as advertising, emerging media, film, the Internet, media management, print, public relations, and television, and their effects at social and individual levels. The program aims to develop a deep understanding of the media and to make students experts on journalistic and mass-mediated problems and issues, as well to make them better consumers of media messages, developers of content, and critics of mediated subject matter. Because each student's goals are unique, the program is flexible in developing individual program curricula. The objective is to balance the discipline's varied traditions in theory, history, and research with attention paid especially to the changing media landscape of the twenty-first century.

*Lawrence J. Mullen, Ph.D., Director*

*Julian Kilker, Ph.D., Graduate Coordinator*

## Hank Greenspun School of Journalism and Media Studies Faculty

### Director

**Mullen, Lawrence J.**- *Full Graduate Faculty*  
Professor; B.A., Buffalo State College; M.A., University of Maryland; Ph.D., University of Iowa. *Rebel since 1994.*

### Graduate Coordinator

**Kilker, Julian A.**- *Full Graduate Faculty*  
Associate Professor; B.A., Reed College; M.S., Ph.D., Cornell University. *Rebel since 1999.*

### Graduate Faculty

**Bates, Stephen**- *Full Graduate Faculty*  
Associate Professor; B.A., J.D., Harvard University. *Rebel since 2006.*

**Borchard, Gregory**- *Full Graduate Faculty*  
Associate Professor; B.A., M.A., University of Minnesota; Ph.D., University of Florida. *Rebel since 2003.*

**Larson, Gary**- *Associate Graduate Faculty*  
Associate Professor-in-Residence; B.A., University of Minnesota; M.A., North Dakota State University; Ph.D., University of Minnesota. *Rebel since 1997.*

**Traudt, P.J.**- *Full Graduate Faculty*  
Associate Professor; B.A., University of Colorado-Boulder; M.A., University of Utah; Ph.D., University of Texas-Austin. *Rebel since 1996.*

**Venger, Olesya**- *Full Graduate Faculty*  
Assistant Professor; B.A. University of "Kyiv-Mohyla Academy," Ukraine; M.A. University of "Kyiv-Mohyla Academy," Ukraine, M.A. Marquette University, M.A. University of Pennsylvania; Ph.D. University of Georgia. *Rebel since 2014.*

## Master of Arts - Journalism & Media Studies

### Plan Description

The Hank Greenspun School of Journalism & Media Studies offers a graduate program of study leading to a Master of Arts degree. Courses of study are designed both for students with a career orientation - in such diverse arenas as human resources, politics, advertising, education, public relations, broadcasting, and social services - and for those who aspire to continue their education in doctoral programs.

All students are required to take four introductory courses: survey of graduate studies, quantitative analysis, and qualitative research methods, and theory. Yet because each student's goals are unique, the curriculum allows flexibility in developing individual degree programs. Such development aims to balance the discipline's varied traditions in theoretical, historical, and applied research, with particular attention to the changing culture of the twenty-first century.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

The master's degree program is designed to meet the student's professional and/or personal objectives. Although an undergraduate degree in journalism, broadcasting, media studies, or communication is not required for admission to the program, a student without a background in these related fields may be required to complete additional course work at the graduate or undergraduate level in order to satisfy minimum expectations of someone entering a graduate course of study.

- The Hank Greenspun School of Journalism and Media Studies admits graduate students only in the fall semester.



- Review of applications begins March 15.
- For additional information, check the school's website.

Students should send application and college transcripts to the Graduate College. In addition, the following should be sent directly to the Graduate Coordinator of the Hank Greenspun School of Journalism and Media Studies:

1. A copy of your undergraduate transcripts (you must have a GPA of at least 3.00 in the last 90 credits of undergraduate course work).
2. Satisfactory scores on the verbal and quantitative sections of the Graduate Record Examination (GRE).
3. At least three letters of recommendation from people who are able to attest to the applicant's ability to do graduate-level work. At least one of these letters should come from a former or current professor or college-level instructor.
4. A letter of intent detailing the applicant's goals and expectations as a graduate student in journalism and media studies.
5. A writing sample such as a college course term paper.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

Subplan 1 Requirements: Thesis Track

Subplan 2 Requirements: Non-Thesis Track

### **Subplan 1 Requirements: Thesis Track**

Total Credits Required: 37

### **Course Requirements**

### **Required Courses – Credits: 10**

JMS 708 - Journalism and Media Studies Colloquium

JMS 712 - Quantitative Research Methods

JMS 730 - Journalism and Media Theory

and 3 credits of graduate-level coursework in qualitative methods (coursework from outside the department of Journalism and Media Studies (JMS) must have the approval of the graduate coordinator).

### **Journalism & Media Studies Courses – Credits: 15**

Complete 15 JMS credits.

### **Elective Courses – Credits: 6**

Complete 6 credits of 600- or 700-level elective coursework.

### **Thesis – Credits: 6**

JMS 798 - Thesis

### **Degree Requirements**

1. Students may elect to present their theses content in traditional or non-traditional formats.
  1. The non-traditional thesis must be consistent with the overall objectives of the program and be approved by the student's thesis committee. There content may be written or take the form of a documentary, drama, public relations campaign, film, video, exhibit, script, website, or any combination approved by the student's thesis committee. In addition, a written research component that follows department and Graduate College formatting guidelines is required.
  2. Regardless of the option selected, the entire thesis must be approved by the Graduate College for electronic and university library access purposes. An oral

examination of the thesis is required.

2. The Graduate Coordinator is the temporary advisor for all new, incoming graduate students. Before completing 16 credit hours, the student selects a permanent advisor who mentors the student through the remainder of the program and guides them in the thesis or examination process.
3. Students are responsible for determining a program of study with their advisor or Graduate Coordinator.
4. A passing grade in any graduate-level course is B- or better. Any course grade of C+ or lower will not be included in the student's degree program. All grades, pass or fail, are calculated to produce the student's GPA. Students can repeat a course to try to better a grade. To graduate, the master's student must have a GPA of 3.00 or higher in his or her accumulated course work.
5. A student who fails the oral examination for the comprehensive examination is allowed to reschedule the oral examination no sooner than three months after the first attempt. Student will be placed on probation. Failure on the second attempt results in the student being separated from the program.

### **Subplan 2 Requirements: Non-Thesis Track**

Total Credits Required: 37

Course Requirements

### **Required Courses – Credits: 10**

JMS 708 - Journalism and Media Studies  
Colloquium

JMS 712 - Quantitative Research Methods  
JMS 730 - Journalism and Media Theory  
and 3 credits of graduate-level coursework in qualitative methods (coursework from outside the department of Journalism and Media Studies (JMS) must have the approval of the graduate coordinator).

### **Journalism & Media Studies Courses – Credits: 18**

Complete 18 JMS credits.

### **Elective Courses – Credits: 9**

Complete 9 credits of 600- or 700-level elective coursework.

### **Degree Requirements**

1. The 37-semester-hour non-thesis option culminates in three activities: the satisfactory completion of written comprehensive exams, the submission of a Graduate Education Portfolio, and satisfactory completion of an oral examination. The student works with his/her faculty advisor (whom the student selects) to compose a Faculty Committee. The committee administers the written and oral exam. The development and completion of the Graduate Education Portfolio is negotiated between the student and the faculty advisor.
2. The Graduate Coordinator is the temporary advisor for all new, incoming graduate students. Before completing 16 credit hours, the student selects a permanent advisor who mentors the student through the remainder of the program and guides them in the thesis or examination process.
3. Students are responsible for determining a program of study with their advisor or Graduate Coordinator.
4. A passing grade in any graduate-level course is B- or better. Any course grade of C+ or lower will not be included in the student's degree program. All grades, pass or fail, are calculated to produce the student's GPA. Students can repeat a course to try to better a grade. To graduate, the master's student must have a GPA of 3.00 or higher in his or her accumulated course work.
5. A student who fails the oral examination for the comprehensive examination is allowed to reschedule the oral examination no sooner than three months after the first attempt. Student will be placed on probation. Failure on the second attempt results in the student being separated from the program.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Journalism and Media Studies Courses

**JMS 601 - The First Amendment and Society**  
Credits 3  
Examination of the evolution and contemporary impact of laws relating to communication.  
**Notes** This course is crosslisted with JOUR 401. Credit at the 600-level requires additional work.

**JMS 608 - Media Criticism**  
Credits 3  
Critical study of the rhetorical dimensions of newspapers, magazines, books, television, and motion pictures.  
**Notes** This course is crosslisted with JOUR 408. Credit at the 600-level requires additional work.

**JMS 613 - History Of Journalism**  
Credits 3  
History of American mass media from antecedents in medieval Europe to the present.  
**Notes** This course is crosslisted with JOUR 413. Credit at the 600-level requires additional work.

**JMS 620 - Visual Literacy**  
Credits 3  
Analysis of graphics, film, television, and computer images. Theoretical, critical, and practical application. Hands-on experience emphasized with a lot of pictorial examples viewed and discussed in class.  
**Notes** This course is crosslisted with JOUR 420. Credit at the 600-level requires additional work.

**JMS 635 - Mass Communication Research Methods**  
Credits 3  
Survey of empirical research methods in communication including laboratory, field, and survey methods and their applications.  
**Notes** This course is crosslisted with JOUR 435. Credit at the 600-level requires additional work.

**JMS 684 - Mass Media and Political Communication**  
Credits 3  
Analysis of historical and contemporary political discourse. Addresses such topics as presidential rhetoric, electoral campaigns, ethics in political culture, institutional leadership, publics and public

opinion, mediated political speech, legislative debates, political socialization.

**Notes** This course is crosslisted with JOUR 484. Credit at the 600-level requires additional work.

#### JMS 685 - Mass Media and Society

Credits 3

In-depth look at the functions of the press in gathering and disseminating knowledge, news and entertainment; specific attention paid to the role of the press in shaping public opinion and influencing public action.

**Notes** This course is crosslisted with JOUR 485. Credit at the 600-level requires additional work.

#### JMS 687 - Ethics in Mass Media

Credits 3

This course is approved for use in graduate programs for Master of Arts candidates. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

#### JMS 708 - Journalism and Media Studies Colloquium

Credits 1

Required core class, introduction to JMS for graduate students in program. Provides an overview of the fields and interrelationships of journalism and media studies. Introduction to theories, methods, and research skills, plus contemporary JMS scholarship, use of library and other tools, development of a bibliography.

**Grading** S/F grading only

#### JMS 709 - Introduction to Research Methods in Journalism and Media Studies

Credits 3

Introduction to methods used in JMS research, concentrating on tools students may encounter in developing literature reviews and papers, including theses or papers. Students demonstrate familiarity with methods by developing and presenting an original research paper that features the use of a methodological approach discussed in class.

#### JMS 710 - Survey of Journalism and Media Studies

Credits 3

Introduction to graduate research writing including learning the proper technical aspects of academic writing; also surveys the fields of journalism and media studies and their interrelationships; past,

present, and future issues; overview of the program.

**Prerequisites** Graduate standing.

#### JMS 711 - Qualitative Research Methods

Credits 3

Fundamentals of humanistic research methodologies; examines such methods as case study, ethnography, focus groups, interviews, visual methods, and other qualitative and critical research methods.

**Notes** Application and critique of the methods.

**Prerequisites** Graduate standing.

#### JMS 712 - Quantitative Research Methods

Credits 3

Fundamentals of scientific approach to research examined and applied; surveys, content analysis, and other methods appropriate to the study of journalistic and media messages, processes, and effects examined.

**Prerequisites** Graduate standing.

#### JMS 713 - History of Journalism and Mass Communication

Credits 3

Critical analysis of historical research and scholarship in journalism and media studies including primary sources and methods. Development of a research project.

**Prerequisites** Graduate standing

#### JMS 715 - Science and Health Communication

Credits 3

Investigates the application of communication theory and research to understanding processes through which information related to science, health, environment, and technology reaches the public. Emphasis on mediated communication but also considers the interrelated roles of other channels.

#### JMS 730 - Journalism and Media Theory

Credits 3

Explores and explains various media phenomena at a theoretical level. Surveys theoretical ideas, the nature of theory, specific theories in the field and those from other fields related to the discipline. Theory evaluation and metatheoretical issues.

**Prerequisites** Graduate standing.

#### JMS 733 - First Amendment Theory

Credits 3

Examination of theory development on the meaning of the press and speech clauses of the First Amendment and how First Amendment theory has been reflected in legal decisions.

**Prerequisites** Consent of instructor.

JMS 739 - Special Problems in Media Production  
Credits 3

Discussion and practical experience in production techniques of the mass media.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor.

JMS 760 - Social Influence of the Media

Credits 3

Analysis of mediated communication patterns and their social importance; considers both news, public affairs, and entertainment influences.

**Notes** Emphasis may vary depending on instructor.

JMS 761 - Journalism and Media Policy and Regulation  
Credits 3

In-depth examination of regulation and policy aspects of broadcasting with emphasis on legal research in telecommunications.

JMS 784 - The Media and Politics

Credits 3

Examines the relationship between the media and political leadership, policymaking, campaigns, and related issues. Looks at the mediation of political reality.

**Prerequisites** Graduate standing.

JMS 789 - Selected Topics in Journalism and Media Studies  
Credits 3

Content varies with current developments in research in Journalism and Media Studies.

**Notes** May be repeated to a maximum of six credits with consent of instructor and department chair.

**Prerequisites** Consent of instructor.

JMS 794 - Special Readings

Credits 3

Content dependent upon the instructor's interest and expertise, as well as student interest and requirements.

**Notes** Course may be repeated to a maximum of six

credits.

**Prerequisites** Graduate standing.

JMS 795 - Independent Study

Credits 1 – 4

Supervised study in subjects and projects determined in consultation with a faculty member. Students wishing to take this course must consult with the faculty member prior to registration.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Faculty approval.

JMS 798 - Thesis

Credits 3

**Notes** May be repeated but only six credits apply to the student's program.

**Grading** S/F grading only.

**Prerequisites** Graduate standing only.

## **Marriage & Family Therapy**

*Joanne Thompson, Ph.D., Chair*  
*Katherine M. Hertlein, Ph.D., Graduate*  
*Coordinator*

The Marriage and Family Therapy Program offers a Master of Science degree and a graduate certificate. The M.S. degree program in marriage and family therapy is the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE). Marriage and Family Therapy is a theory-based professional practice. The program emphasizes putting theory into clinical practice. This practice includes supervised clinical experiences in the on-campus Center for Individual, Couple and Family Counseling. Students complete an approved internship in the community. Students are required to obtain 500 hours of face-to-face clinical contact through practica and internship site experiences.

The philosophy of the MFT faculty is based upon values of individual worth and dignity, personal uniqueness and value, and individual freedom to be self-determined within a context of responsibility to others. Program faculty represent a wide variety of therapy approaches and are actively involved in research related to the profession of marriage and family therapy. Students are encouraged to become informed consumers of therapy literature and research. The program also emphasizes the importance of personal growth of the student. Since personal qualities play a vital part in the determination of success as a therapist, opportunities are provided for the development of self-awareness, as well as an understanding of the effect one has upon others in interpersonal relationships.

The mission of the MFT program is to provide quality training in the theory and practice of marriage and family therapy to students primarily from the Southern Nevada region, but also those from the state, across the country, and throughout the world. We are committed to helping students become competent professionals through developing greater self-awareness, appreciating and embracing diversity, learning the art and science of clinical practice, and promoting a sense of ethical behavior, professionalism and professional identity.

## Marriage and Family Therapy Faculty

### Director

#### **Thompson, Joanne**

Professor. B.A., LaGrange College; M.S.W., University of Arkansas; Ph.D., Rutgers University. *Rebel since 2003.*

### Graduate Coordinator

**Hertlein, Katherine M.** - *Full Graduate Faculty*  
Assistant Professor. B.S., Truman State University; M.S., Purdue University Calumet; Ph.D., Virginia Polytechnic Institute. *Rebel since 2004.*

### Graduate Faculty

**Blumer, Markie C.L.** - *Full Graduate Faculty*  
Assistant Professor. B.S. M.Ed., Northern Arizona University; M.A., University of Louisiana, Monroe; Ph.D., Iowa State University. *Rebel since 2009.*

**Fife, Stephen T.** - *Full Graduate Faculty*  
Assistant Professor. B.S., M.S., Ph.D. Brigham Young University  
Hertlein, Katherine M. (2004).  
Assistant Professor. B.S., Truman State University; M.S., Purdue University Calumet; Ph.D., Virginia Polytechnic Institute. *Rebel since 2003.*

**Peterson, Colleen M.** - *Full Graduate Faculty*  
Assistant Professor in Residence, Center for Individual, Couple, and Family Counseling. B.A., M.S. Brigham Young University; Ph.D., Kansas State University. *Rebel since 1999.*

**Weeks, Gerald R.** - *Full Graduate Faculty*  
Professor; B.A., M.A., East Carolina University; Ph.D., Georgia State University. *Rebel since 1999.*

### Professors Emeriti

#### **Emerson, Shirley**

Emeritus Professor; B.A., Rice University; M.A., Ph.D., University of Michigan. *UNLV Emeritus 1984-2000.*

#### **McBride, Martha**

Emeritus Professor; B.A., M.Ed., University of Florida; Ed.D., University of Georgia. *UNLV Emeritus 1975-1999.*

## Master of Science - Marriage and Family Therapy

### **Plan Description**

The Marriage and Family Therapy Master of Science Degree Program, a 60 semester hour course of study, prepares candidates for licensure as a Marriage and Family Therapist (MFT) in Nevada. MFTs work with individuals, couples, families, and groups on mental health, behavioral, personal and/or relational concerns. MFTs are employed in a wide range of settings, including public and private, for-profit and non-profit agencies, hospitals and social service agencies. They may practice independently after they are fully licensed. While there are similarities between MFT licensing requirements for most states, students are strongly encouraged to become familiar with the licensing requirements in the state(s) wherein they want to practice as an MFT. Students who are in their final semester of completing of their degrees may apply to the State of Nevada Board of Examiners for Marriage and Family Therapists and Clinical Professional Counselors for licensure as an MFT Intern. Once approved by the Board, a licensed Marriage and Family Therapy Intern is eligible to practice under the direct supervision of an AAMFT Approved Supervisor or AAMFT Supervisor Candidate. Further information on this process may be obtained by calling the board's office. Students should be aware that the state's post-master's internship and the department's pre-master's internships are in no way related. The department does not offer, nor otherwise sanction, state internships.

**For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

The master's degree program requires that applicants apply for admission to the Graduate College, as well

as to the Department of Marriage and Family Therapy as Applicants must provide official transcripts of all college level coursework. In addition, applicants are required to submit Graduate Record Examination (GRE) scores on both the Verbal and Quantitative sections of the general test. A minimum score of 450 is required on each and must have been taken within five years prior to submitting admission applications. A minimum grade point average of 2.75 for all undergraduate work and a 3.00 for the last two years of undergraduate work is required.

Applicants must also make arrangements for three letters of recommendation to be sent directly to the department, along with a departmental application form, and two writings (an autobiographical writing and an essay on the family). Potential students should visit the department website for specific application materials (<http://mft.unlv.edu/index.html>).

Applications are accepted once a year, with a January 15 priority deadline and a final deadline of July 1. The application process also involves an extensive on-campus interview for viable candidates, with all candidates participating in interviews together. Classes begin in the Fall semester.

Note: Non-admitted students may take up to three selected courses (see course listing for prerequisites) prior to formal admission to the program (MFT 701, MFT 759 and MFT 763). If admitted, these courses are eligible to count toward the degree. However, program tuition remains the same. Please contact the Marriage and Family Therapy graduate coordinator for more information.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

### **Subplan 1 Requirements: Thesis Track**

Total Credits Required: 60

Course Requirements

#### **Required Courses – Credits: 54**

MFT 701 - Introduction to Marriage and Family Therapy  
MFT 719 - Sexual Issues in Marriage and Family Therapy  
MFT 720 - Counseling Across the Lifespan  
MFT 725 - Diversity in Marriage and Family Therapy  
MFT 731 - Substance Abuse in Marriage and Family Therapy  
MFT 759 - Family Dynamics  
MFT 762 - Diagnosis in Marriage and Family Therapy  
MFT 763 - Family Systems Theory  
MFT 764 - Principles and Practices of Marriage and Family Therapy I  
MFT 765 - Principles and Practices of Marriage and Family Therapy II  
MFT 771 - Ethical and Legal Issues in Marriage and Family Therapy  
MFT 773 - Marriage and Family Practicum (three semesters for 9 credits)  
MFT 776 - Internship in Marriage and Family Therapy (two semesters for 6 credits)  
MFT 777 - Couples Counseling  
MFT 779 - Marriage and Family Therapy Research Seminar

#### **Thesis – Credits: 6**

MFT 749 - Thesis

Degree Requirements

1. Have a cumulative grade point average of 3.00 or better in the program. Students who receive an F, or more than two Cs, will be separated from the program.
2. A grade of B or better is required in any practicum or internship or the course must be repeated.
3. Students are required to complete 6 credits of thesis.



4. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.
5. Every student will be reviewed each semester to determine adequate progress and retention in the program.
6. The full time program is sequenced so that students take a certain number of courses or credits each semester, including summer. A student who does not follow the designated course sequence may lack prerequisites for their next courses, and, therefore, may need to wait for a course to be offered again in the next cycle. It is the responsibility of the student to discuss course sequencing and planned timing with their advisor. Not all courses are offered every semester or every year. There are many courses that are offered only once each calendar year. Thus, it is imperative that students take the recommended number of credits and stay in sequence in order for them to graduate in a timely manner.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public. .
3. The student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### **Subplan 2 Requirements: Non-Thesis Track**

Total Credits Required: 60

#### Course Requirements

##### **Required Courses – Credits: 54**

MFT 701 - Introduction to Marriage and Family Therapy  
 MFT 719 - Sexual Issues in Marriage and Family Therapy  
 MFT 720 - Counseling Across the Lifespan  
 MFT 725 - Diversity in Marriage and Family Therapy  
 MFT 731 - Substance Abuse in Marriage and Family Therapy  
 MFT 759 - Family Dynamics  
 MFT 762 - Diagnosis in Marriage and Family Therapy  
 MFT 763 - Family Systems Theory  
 MFT 764 - Principles and Practices of Marriage and Family Therapy I  
 MFT 765 - Principles and Practices of Marriage and Family Therapy II  
 MFT 771 - Ethical and Legal Issues in Marriage and Family Therapy  
 MFT 773 - Marriage and Family Practicum(three semesters for 9 credits)  
 MFT 776 - Internship in Marriage and Family Therapy (two semesters for 6 credits)  
 MFT 777 - Couples Counseling  
 MFT 779 - Marriage and Family Therapy Research Seminar

##### **Capstone Course – Credits: 6**

MFT 750 - Capstone

#### Degree Requirements

1. Have a cumulative grade point average of 3.00 or better in the program. Students who receive an F, or more than two Cs, will be separated from the program.
2. A grade of B or better is required in any practicum or internship or the course must be repeated.
3. Students prepare a portfolio with either a clinical focus or research focus and are required to complete 6 credits of capstone.
4. Every student will be reviewed each semester to determine adequate progress and retention in the program.

5. The full time program is sequenced so that students take a certain number of courses or credits each semester, including summer. A student who does not follow the designated course sequence may lack prerequisites for their next courses, and, therefore, may need to wait for a course to be offered again in the next cycle. It is the responsibility of the student to discuss course sequencing and planned timing with their advisor. Not all courses are offered every semester or every year. There are many courses that are offered only once each calendar year. Thus, it is imperative that students take the recommended number of credits and stay in sequence in order for them to graduate in a timely manner.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must successfully complete the capstone.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

## Marriage and Family Therapy Courses

### MFT 701 - Introduction to Marriage and Family Therapy

Credits 3

Introduction to the field and profession of marriage and family therapy including the study of trends, purposes, ethics, standards, and professional roles of marriage and family therapists. Basic therapeutic techniques such as joining, conducting an assessment, treatment planning, and termination of treatment.

### MFT 705 - Child Counseling

Credits 3

Focus on developing knowledge and skills necessary to counsel children and adolescents. Theoretical and practical counseling interventions for helping children and adolescents will be explored. Ethical and legal responsibilities in regard to children, and current research presented.

#### **Prerequisites** MFT 764

Admission to MFT program or consent of instructor.

### MFT 710 - Family Therapy with Older Adults

Credits 3

Targets on the use of human relations and counseling techniques with elderly citizens who may have coping or adaptation problems. Emphasis on problems related to aging.

#### **Prerequisites** MFT 701

Admission to MFT program or consent of instructor.

### MFT 711 - Issues in Counseling Women

Credits 3

Developmental patterns in women. Changing roles of women; sexist bias and nonsexist counseling; existing counseling approaches and their impact on various female populations; examination of subcultures within the female group.

#### **Prerequisites** MFT 701

Admission to MFT program or consent of instructor.

### MFT 713 - Gender Issues in Marriage and Family Therapy

Credits 3

Survey of gender issues for adult men and women, which impact counseling concerns such as

relationships, work, and lifestyles.

**Prerequisites** MFT 701

Admission to MFT program or consent of instructor.

MFT 715 - Group Processes and Procedures  
Credits 3

Group dynamics and procedures; emphasis on personal growth, examination of personal attitudes and values, and group membership.

**Prerequisites** Admission to MFT program or consent of instructor.

MFT 719 - Sexual Issues in Marriage and Family Therapy  
Credits 3

Basic knowledge, theory, and interventions to help clients deal with sexual issues. Introduces methodology of conducting sexual assessment interviews, as well as structuring and implementing treatment strategies for a variety of issues including: sexual dysfunctions, selected varieties of sexual behavior, aging, disabilities, and transmitted diseases.

**Prerequisites** MFT 765

Admission to MFT program or consent of instructor.

MFT 720 - Counseling Across the Lifespan  
Credits 3

This class focuses on developing knowledge and skills necessary to counsel across the lifespan. Theoretical and practical counseling interventions for helping across developmental ages will be explored, as well as ethical and legal responsibilities.

**Prerequisites** Admission into the MFT MS program.

MFT 725 - Diversity in Marriage and Family Therapy  
Credits 3

Provides principles, procedures, and techniques of therapy with multicultural populations. Emphasis on establishing communication with individuals representing diversified cultures. Offering of action-oriented guidance relevant to various cultural lifestyles.

**Prerequisites** Admission to MFT program or consent of instructor.

MFT 731 - Substance Abuse in Marriage and Family Therapy  
Credits 3

Physical and psychological aspects of substance abuse and other addictions, specific counseling and

treatment approaches.

**Prerequisites** Admission to MFT program or consent of instructor.

MFT 734 - Assessment in Marriage and Family Therapy  
Credits 3

Theoretical and practical approach to assessing the individual. Includes development of framework for understanding individual and group testing in behavioral health; data gathering methods; case study approaches; and individual differences including ethnic, cultural, and gender considerations.

**Prerequisites** MFT 701

Admission to MFT program or consent of instructor.

MFT 736 - Orientation to Marriage and Family Therapy  
Credits 1

Provides information concerning the professional role, function, history, philosophy and practice of therapy. Role of the marriage and family therapist in community, educational, and business settings, as well as their interactive relationship with other professionals.

MFT 737 - Seminar: Crucial Issues in Marriage and Family Therapy  
Credits 3 – 6

Analysis of selected and significant issues in therapy of current and continuing concern.

**Notes** May be repeated once for credit. Majors only.

**Prerequisites** Admission to MFT program or consent of instructor.

MFT 748 - Marriage and Family Therapy Professional Paper  
Credits 3

The professional paper is designed to demonstrate the skills students have acquired during their graduate education.

**Grading** S/F grading only.

**Prerequisites** Admission to MFT program or consent of instructor.

**Corequisite** MFT 779

MFT 749 - Thesis  
Credits 3 – 6

**Notes** May be repeated but only six credits applied to the student's program.

**Grading** S/F grading only.

**Prerequisites** MFT 779

Admission to MFT program or consent of instructor.

MFT 750 - Capstone

Credits 3

As a capstone experience in the program, students may choose to prepare either a clinical or research portfolio. The clinical portfolio focuses on students' development as a clinician. The research portfolio focuses on students' development as a scientist-practitioner. Students will be required to prepare a written and oral presentation.

**Prerequisites** Admission into the MFT MS program.

MFT 755 - Advanced Marriage and Family Theories

Credits 3

Intensive exploration of current and historical developments in the field of marriage and family therapy. Emphasis on the major systems and applications together with the current research in these areas.

**Prerequisites** MFT 765

MFT 756 - Human Development

Credits 3

Study of human growth and development of individuals across the lifespan, including stability and change in relationships. Focus on developmental implications in conducting marriage and family therapy and interventions.

**Prerequisites** Admission to MFT program or consent of instructor.

MFT 758 - Individual Instruction

Credits 1 – 3

Selected basic problems related to the field of marriage and family therapy. a) Testing. b) Curriculum. c) Supervision. d) Therapy. e) Area Problems. f) Research.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Admission to MFT program or consent of instructor.

MFT 759 - Family Dynamics

Credits 3

Study of family factors as they relate to personal adaptability. Application of research and practice in

family therapy relative to the interpersonal problems of adults and children.

MFT 761 - Technology and the Internet in the Social Science, Research and Practice

Credits 3

Explores role of technology in changing society, application of technology to field of social sciences, research and practice, and limitations and concerns about technology in the helping profession.

**Prerequisites** MFT 701

Admission to MFT program or consent of instructor.

MFT 762 - Diagnosis in Marriage and Family Therapy

Credits 3

Overview of practical and theoretical aspects of assessment and diagnosis of behavior in marriage and family therapy. Examination of cultural factors affecting diagnosis and assessment. Focus on relational diagnosis.

**Prerequisites** Admission to MFT program or consent of instructor.

**Corequisite** MFT 764

MFT 763 - Family Systems Theory

Credits 3

In-depth analysis of general systems theory as it applies to therapy, especially with multi-person client systems such as couples and families. Major concepts, philosophical foundations, and pragmatic implications of using systematic principles in counseling.

MFT 764 - Principles and Practices of Marriage and Family Therapy I

Credits 3

Focuses on the process of family therapy. Beginning skills necessary for family therapy. Theoretical foundations in systems theory as well as each of the major models of family therapy. Prepares students to assess families and conduct family therapy from variety of approaches.

**Prerequisites** Admission to MFT program or consent of instructor.

MFT 765 - Principles and Practices of Marriage and Family Therapy II

Credits 3

Focuses on contemporary family therapy theories and approaches, including marital therapy theories and

models. Advanced understanding of assessment, applications of current research and outcomes, professional and ethical issues, and clinical marital issues included.

**Prerequisites** MFT 764

MFT 771 - Ethical and Legal Issues in Marriage and Family Therapy

Credits 3

Examination of professional organizations, their methods of change, ethical and legal standards, their evolution and application to a variety of professional activities.

**Prerequisites** Admission to MFT program or consent of instructor.

MFT 773 - Marriage and Family Practicum

Credits 3

Advanced therapy experience with couples and families.

**Notes** Must be repeated for a minimum of nine credits.

**Prerequisites** MFT 762, MFT 765.

MFT 776 - Internship in Marriage and Family Therapy

Credits 3

Internship is the final activity and is intended to provide students with the opportunity to engage in all of the activities of a regularly employed staff member in an approved clinical setting, including working with clients. To be eligible to take Internship, students must have completed all other coursework with the exception of MFT 748/MFT 749.

**Notes** Internship activities take place at community sites where interns can work with clients.

**Prerequisites** MFT 773

Admission to MFT program or consent of instructor.

MFT 777 - Couples Counseling

Credits 3

Specialized approaches to resolving adult relationship problems. Theoretical issues, relationship appraisal techniques, and ethical considerations specific to couples therapy.

**Prerequisites** Admission to MFT program or consent of instructor.

MFT 779 - Marriage and Family Therapy Research Seminar

Credits 3

Seminar in the application and integration of marriage and family therapy outcome and process research. Emphasis on developing knowledge necessary to understand the results of and apply the methods of marriage and family research through an exploration of applied research methods, and relevant research findings.

**Prerequisites** Admission to MFT program or consent of instructor.

MFT 781 - Best Practices in Marriage and Family Therapy

Credits 3

Advanced course that builds upon existing knowledge and clinical experience. Focuses on research supporting the effectiveness of marriage and family therapy. Students will learn “best practice” marriage and family treatment approaches for use with clients suffering from various relational and mental health problems.

**Prerequisites** MFT 762, MFT 779.

Admission to MFT program or consent of instructor.

MFT 783 - Trauma and Abuse

Credits 3

Specified counseling procedures with the child abuser or abused child. Study etiology of the phenomenon of child abuse. Study of factors and their interpretation to facilitate intervention models and resources to meet client objectives.

**Prerequisites** MFT 759

Admission to MFT program or consent of instructor.

MFT 787 - Individual Research

Credits 1 – 3

Selected problems in Marriage and Family Therapy.

**Notes** May be repeated to a maximum of seven credits.

**Prerequisites** Admission to MFT program or consent of instructor.

MFT 788 - Advanced Seminar in Marriage and Family Therapy

Credits 1 – 6

Selected topics in counseling and human development services. a) Principles and practices. b) Individual analysis. c) Occupational information. d) Placement. e) Follow-up evaluation. f) Research.

**Same as** (EPY 788)

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Admission to MFT program or consent of instructor.

MFT 793 - Doctoral Internship

Credits 3 – 6

Intense supervision with a restricted client load.

Enrollees synthesize and translate clinical skills in supervisory role. Restricted to doctoral candidates.

**Notes** May be repeated to a total of six credits.

**Prerequisites** Doctoral candidates.

Admission to MFT program or consent of instructor.

MFT 799 - Dissertation

Credits 3 – 24

Culminating experience that may be: a) traditional, original research, b) field oriented and problem solving, or c) exploratory or generative research.

**Notes** Limited to doctoral candidates. 3-24 credits in increments of 3.

**Prerequisites** Doctoral candidates.

Admission to MFT program or consent of instructor.

## **School of Environmental and Public Affairs**

The School of Environmental and Public Affairs was created to assist the College of Urban affairs in its mission to prepare community leaders and address pressing societal issues. The School provides an umbrella for exciting, interdisciplinary research and teaching in public administration and governance, environmental science and studies, non-profit management, urban studies, and natural resources management. Our faculty's strong record and interest in these areas offer students and practitioners a variety of possibilities in cutting-edge and relevant knowledge, research, and projects. The School does this primarily through interdisciplinary activities including policy forums and the offering of doctoral degrees in Environmental Science, Public Affairs, and Workforce Development and Organizational Leadership.

*Chris Stream, Ph.D., Chair*

*Jessica Word, Ph.D., Graduate Coordinator*

School of Environmental and Public Affairs  
Faculty

**Director**

**Christopher Stream** - *Full Graduate Faculty*  
Associate Professor; B.A., University of Nebraska;  
M.S., Ph.D., Florida State University.

**Graduate Coordinators & Program Directors**

**Crawford, James** - *Full Graduate Faculty*  
Director, Urban Leadership; Associate Professor;  
B.A. University of Colorado; M. Ed., University of  
Idaho; Ph.D. University of Missouri.

**Maldonado-Daniels, Cecilia** - *Full Graduate  
Faculty*  
Director, Workforce Development and  
Organizational Leadership; Associate Professor; B.S.,  
M.S., University of Akron; Ph.D. Pennsylvania State  
University.

**Neill, Helen** - *Full Graduate Faculty*  
Graduate Coordinator, Public Affairs; Associate  
Professor and Associate Dean; B.A. Trinity  
University; M.A., Ph.D., University of New Mexico

**Springer, Christine** - *Full Graduate Faculty*  
Director, Executive M.S. in Crisis and Emergency  
Management; B.A., University of Arizona, M.P.A.,  
Arizona State University; Ph.D., Indiana University,  
School of Public and Environmental Affairs.

**Stave, Krystyna** - *Full Graduate Faculty*  
Graduate Coordinator, Environmental Studies;  
Associate Professor; B.S., Cornell University; M.,  
Dartmouth; Ph.D., School of Forestry and  
Environmental Studies, Yale University.

**Stream, Christopher** - *Full Graduate Faculty*  
Director of the School of Environmental and Public  
Affairs; Associate Professor; B.A., University of  
Nebraska; M.S., Ph.D., Florida State University.

**Word, Jessica** - *Full Graduate Faculty*  
Director, Nonprofit Management Certificate;  
Assistant Professor; B.A., Queens College; M.P.A.,  
Ph.D., Florida State University.

**Graduate Faculty**

**Bernick, E. Lee** - *Full Graduate Faculty*  
Professor and Interim Dean, Greenspun College of  
Urban Affairs; B.A., M.A., Ph.D., University of  
Oklahoma.

**Carlton, Pat** - *Full Graduate Faculty*  
Professor; A.B., M. Ed., University of North  
Carolina; M.A. Shippensburg University; Ph.D.  
University of North Carolina.

**Crawford, James** - *Full Graduate Faculty*  
Associate Professor; B.A. University of Colorado; M.  
Ed., University of Idaho; Ph.D. University of  
Missouri at Columbia.

**Danielsen, Karen A.** - *Full Graduate Faculty*  
Assistant Professor; B.A. and M.C.R.P., Rutgers  
University; Ph.D., Virginia Polytechnic and State  
University.

**Hall, Gene** - *Full Graduate Faculty*  
Professor; B.S. Castleton State College; M.S., Ph.D.,  
Syracuse University.

**Joaquin, M. Ernita** - *Full Graduate Faculty*  
Assistant Professor; B.A., M.P.A., University of the  
Philippines; Dip.HR Studies, University of  
Manchester; Ph.D. Northern Illinois University.

**Kim, Yeonsoo** - *Full Graduate Faculty*  
Assistant Professor; B.A., M.A., Sung Kyun Kwan  
University; Ph.D., Pennsylvania State University.

**Lukemeyer, Anna** - *Full Graduate Faculty*  
Associate Professor; B.A., Indiana University; J.D.,  
L.L.M., Southern Methodist University; Ph.D.,  
Syracuse University.

**Maldonado-Daniels, Cecilia** - *Full Graduate  
Faculty*  
Associate Professor; B.S., M.S., University of Akron;  
Ph.D. Pennsylvania State University.

**Neill, Helen** - *Full Graduate Faculty*  
Associate Professor; B.A., Trinity University; M.A.,  
Ph.D., University of New Mexico.

**Rusch, Edith** - *Full Graduate Faculty*  
Professor; B.S., University of Wisconsin; M.A.,  
University of Northern Colorado; Ph.D., University  
of Oregon.

**Springer, Christine** - *Full Graduate Faculty*  
B.A., University of Arizona; M.P.A., Arizona State University; Ph.D., Indiana University, School of Public and Environmental Affairs.

**Stave, Krystyna** - *Full Graduate Faculty*  
Associate Professor; B.S., Cornell University; M.S., Dartmouth; Ph.D., School of Forestry and Environmental Studies, Yale University.

**Stream, Christopher** - *Full Graduate Faculty*  
Associate Professor; B.A., University of Nebraska; M.S., Ph.D., Florida State University.

**Weber, Edward** - *Full Graduate Faculty*

Professor; B.A., Colorado State University; M.S., Ph.D., University of Wisconsin-Madison.

**Word, Jessica** - *Full Graduate Faculty*  
Assistant Professor; Ph.D., Florida State University

### **Professors Emeriti**

**Goodall, Leonard**  
Emeritus President and Professor; B.A., M.A., Central Missouri State University; Ph.D., University of Illinois. *UNLV Emeritus 1979-2000.*

**Jordon, Teresa**

**Lowry, Phillip**  
Emeritus Associate Professor; B.S., University of Maryland; M.S.B.A., George Washington University; D.B.A., Ph.D., Arizona State University. *UNLV Emeritus 1983-1996.*

**McCord, Robert**  
Emeritus Associate Professor; B.A., M.A., University of Wisconsin; Ph.D., University of Nevada, Las Vegas. *UNLV Emeritus 1999-2011.*

**Sutton, Richard**  
Emeritus Associate Professor; B.A., Tulane University; Ph.D., University of North Carolina, Chapel Hill. *UNLV Emeritus 1974-2006.*

**Thompson, William**  
Emeritus Professor; B.A., M.A., Michigan State University; Ph.D., University of Missouri at Columbia. *UNLV Emeritus 1980-2010.*

**Tilman, Lee R.**  
Emeritus Professor; B.S., Oregon State University; M.A., Ph.D., University of Arizona. *UNLV Emeritus 1967-1997.*



## Graduate Certificate in Nonprofit Management

### Plan Description

The School of Environmental and Public Affairs offers a Graduate Certificate in Nonprofit Management. The Certificate is designed for individuals with either a baccalaureate degree or a graduate degree who are interested in enhancing their educational background with regard to the nonprofit sector. The Certificate is designed to provide individuals the intellectual foundation to function as a manager in nonprofit organizations.

Students earning the certificate may apply for admission into the Master of Public Administration degree program. If accepted, the fifteen credits earned in the certificate program may be applied to the M.P.A. Additional information about admissions to the M.P.A. can be found on the School of Environmental and Public Affairs web page [http://sepa.unlv.edu/admissions/mpa\\_pa.html](http://sepa.unlv.edu/admissions/mpa_pa.html).

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applicants for admission to the Certificate in Nonprofit Management Program must have earned an undergraduate degree from a regionally accredited college or university. Applicants must be accepted by the Graduate College and the School of Environmental and Public Affairs.

Application Process:

1. Apply online to the Graduate College.
2. All application material is subsequently reviewed by faculty to determine admission into the program.

3. Additional materials listed below should be uploaded and submitted with your application:

1. Official transcripts demonstrating an earned bachelor's degree from a regionally accredited college or university and a GPA sufficient to meet Graduate College requirements.
2. Note: Unofficial transcripts are allowed to be uploaded and submitted with your application to allow initial evaluation.
4. Two letters of recommendation from professors, employers, and/or professional colleagues. Identify the two people sending letters of recommendation on your behalf. They will, in turn, upload their letters to the Graduate College's On-line application site. To get this process started, go to the Graduate College's Application process webpage and click on the RECOMMENDATIONS link at the left side of the page immediately below the Application process links. Then make sure you check "yes" when it asks you about submitting your letters electronically.
5. A written essay explaining why you are interested in the certificate program in nonprofit management.
6. A current resume.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Refer to the Graduate College website for current deadlines.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

Total Credits Required: 15

Course Requirements

### **Core Courses – Credits: 6**

PUA 708 - Organizations and Organizational Behavior

PUA 770 - Nonprofit Management and Theories of the 3rd Sector

### **Required Courses – Credits: 6**

Complete two of the following three credit courses, one of which must be writing intensive:

PUA 773- Marketing and the Nonprofit Organization

PUA 774 - Community Outreach and Volunteerism

PUA 775 - Strategic Planning and Program Evaluation for Nonprofits

PUA 776 - Development for Nonprofit Managers

PUA 777 - Grantwell

### **Elective Courses – Credits: 3**

Complete three of the following one-credit courses (three hours)

PUA 610 - Grant Writing for Public and Nonprofit Managers

PUA 611 - Policy Advocacy and Lobbying

PUA 612 - Performance Measurement for Public and Nonprofit Organizations

PUA 613 - Leadership and Ethics for Public and Nonprofit Managers

PUA 614: Facilitation

PUA 615: Nonprofit Financial Management

### **Certificate Requirements**

1. Completion of a minimum of 15 credit hours with a minimum GPA of 3.00.
2. Students are required to submit a portfolio in their final semester. Specific guidelines for the portfolio may be obtained from the Nonprofit Certificate program director.

### **Plan Certificate Completion Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.
2. Complete the final project paper.

## **Graduate Certificate in Public Management**

### **Plan Description**

The School of Environmental and Public Affairs offers a Graduate Certificate in Public Management. The certificate is designed for individuals with a baccalaureate degree and who are currently employed in a public (national, state, or local) or nonprofit agency. The certificate is designed to provide individuals the basic intellectual foundation necessary to function as a manager in the public sector.

The Public Management Certificate Program begins once a year in January of the Spring Semester.

Students earning the certificate may apply for admission into the Master of Public Administration degree program. If accepted, the fifteen credits earned in the certificate program may be applied to the M.P.A. Additional information about admissions to the M.P.A. can be found on the School of Environmental and Public Affairs web page [http://sepa.unlv.edu/admissions/mpa\\_pa.html](http://sepa.unlv.edu/admissions/mpa_pa.html).

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

To be admitted to the program, you must:

1. Have earned an undergraduate degree from a regionally accredited college or university.
2. Be currently employed in a public agency at the national, state, or local level or at a nonprofit.
3. Enter a cohort that is being sponsored by a government or nonprofit agency.
4. Be accepted by the Graduate College and the School of Environmental and Public Affairs.

5. Provide two letters of recommendation from professors, employers and/or professional colleagues.
6. Submit a current resume with your application.
7. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Application Process:

1. Apply to the Graduate College through the online application system. Be sure to select the certificate in Public Management (rather than the MPA degree) from the list.
2. You are required to send official transcripts for all college-level work to the Graduate College.
3. Note: Unofficial transcripts can be uploaded and submitted to the Graduate Coordinator in the School of Environmental and Public Affairs (SEPA) for initial evaluation.
4. Identify the two people sending letters of recommendation on your behalf. They will, in turn, upload their letters to the Graduate College's On-line application site. To get this process started, go to the Graduate College's Application process webpage and click on the RECOMMENDATIONS link at the left side of the page immediately below the Application process links. Then make sure you check "yes" when it asks you about submitting your letters electronically (These can be submitted electronically by the letter writers).

After the School and Graduate College obligations have been met, the file then goes to the School's Admission Committee. The Graduate College will then send you an email confirmation with the status of the admission decision.

Note: If you complete the required 15 credits with a 3.5 GPA or higher, then you will be able to apply for the MPA program and possibly be accepted without taking the GRE the following spring.

Refer to the Graduate College website for current deadlines.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and*

*corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

**Plan Requirements**

Total Credits Required: 15

Course Requirements

**Core Courses – Credits: 6**

PUA 701 - Governance and the Urban Community  
PUA 703 - Seminar In Organization Theory

**Required Courses – Credits: 6**

Complete two of the following three credit courses, one of which must be writing intensive:

PUA 705 - Public Goods and Public Finance  
PUA 708 - Organizations and Organizational Behavior  
PUA 715 - Administrative Law  
PUA 740 - Urban Administration  
PUA 741 - Leading and Assessing Change in Organizations  
PUA 745 - Administration in a Federal and Intergovernmental Perspective  
PUA 749 - Ethics in Public Administration

**Elective Courses – Credits: 3**

Complete three of the following one-credit courses (three hours)

PUA 610 - Grant Writing for Public and Nonprofit Managers  
PUA 611 - Policy Advocacy and Lobbying  
PUA 612 - Performance Measurement for Public and Nonprofit Organizations  
PUA 613 - Leadership and Ethics for Public and Nonprofit Managers  
PUA 614: Facilitation

Certificate Requirements

1. Completion of a minimum of 15 credit hours with a minimum GPA of 3.00.
2. Students are required to submit a final project paper that uses knowledge and skills

obtained from the course work and apply this information to an organization of their choice. Specific guidelines for the paper may be obtained from the Public Administration Graduate Coordinator.

### **Plan Certificate Completion Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation in MyUNLV by the appropriate deadline.
2. Complete the capstone experience.

## **Doctor of Philosophy - Environmental Science (On Hold)**

### **Plan Description**

The School of Environmental and Public Affairs administers an interdisciplinary program offering Environmental Science M.S. and Ph.D. degrees.

#### **Description and Objectives of the Program**

The graduate program in Environmental Science fosters an understanding of interrelationships between disciplines in addition to requiring depth of study in specialized areas. It emphasizes the need to understand the social context and environmental consequences of using science and technology to serve human needs. We require all students to take two core courses: Environmental Problem Solving (ENV 702), and Environmental Law and Policy Seminar (ENV 703). Other course work in support of a student's specialization generally includes courses from several departments and student research often crosses disciplinary lines.

The general objectives of offering a Ph.D. degree in Environmental Science at UNLV are to:

1. Promote the understanding of environmental systems, the relationship among science, environmental management and the human condition, and the effective management of that relationship.
2. Respond to local, state, regional, national and international needs for environmental professionals with advanced degrees.
3. Assist in the process of shifting toward more sustainable practices in our local community, state and throughout the world.
4. Encourage graduate students, undergraduate students, and faculty from various departments, colleges and NSHE institutions to collaborate in an effort to find new and creative solutions to environmental problems.
5. Assist in the development of expertise that will both support excellence in Environmental Science at UNLV and lead to

- the enhancement of disciplinary graduate programs of each department.
6. Provide opportunities and encouragement for both disciplinary and interdisciplinary student and faculty interactions that will promote team-building; undergraduate, graduate, faculty mentoring activities; community problem-solving; and enhance instructional programs at UNLV.
  7. Support graduate student research with grants and contracts from extramural sources.

Encourage faculty and graduate student research on environmental projects developed in cooperation with the UNLV International Programs Office and institutions abroad.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Applications are reviewed twice per year: February 15 and November 15. Requirements 1-5 below must be met before applying to the program. Items 7 and 8 must be submitted directly to the School of Environmental and Public Affairs office prior to the application review dates.

1. A bachelor's degree from an accredited college or university.
2. Minimum of three credits of calculus or three credits of statistics and at least 12 credit hours in physical and/or biological sciences with grades of B or better.
3. A GPA of at least 3.00 on a 4.00 scale is required for admission.
4. Scores at or above the 50th percentile in all three areas of the Graduate Record Exam.
5. International students must take and obtain a score of at least 550 on the TOEFL exam.
6. Application to the Graduate College, submitted using the on-line application system.

7. Three letters of recommendation from professors, employers and/or professional colleagues.

8. A 1-2 page "Statement of Objectives." The Graduate Coordinating Committee uses the Statement of Objectives to determine whether the necessary physical and intellectual resources exist at UNLV to allow the applicant to achieve her/his objectives. The statement will be used to identify and appoint an appropriate advisor for the first year of graduate study, and make other decisions regarding admissibility.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

#### *Post-Master's Track*

Students who have completed an M.S. in Chemistry or Environmental Science (Environmental Chemistry) may qualify for the 48 credits Post-Master's Track. However, additional credits may be required to address student deficiencies or build specialized expertise. Course selection will be based on the student's research objectives, academic record and results of a preliminary examination. This examination will consist of the American Chemical Society Advanced Placement Examination or will be a three-part placement examination prepared by the Chemistry Department with assistance from faculty in other areas appropriate to the particular interests of the student.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Post-Bachelor's - Environmental Chemistry Track (On Hold)**

Total Credits Required: 72

Course Requirements

**Required Courses – Credits: 6**

ENV 702 - Environmental Problem Solving  
ENV 703 - Environmental Law and Policy Seminar

**Seminar Course – Credits: 6**

CHEM 791 - Graduate Seminar

**Chemistry Courses – Credits: 9**

Complete 9 credits of advisor-approved CHE or WRM graduate-level courses.

**Elective Courses – Credits: 33**

Complete 33 credits of advisor-approved elective coursework.

**Dissertation – Credits: 18**

ENV 798 - Dissertation Research

**Degree Requirements**

1. A minimum of 72 credits beyond the baccalaureate is required for the Ph.D. degree.
2. At least 36 credits must be from 700-level courses.
3. Requirements for completion of each of the fields in the degree program will frequently make it necessary for students to exceed minimum credit requirements.
4. The student is advised to examine the specific information for each field of study for additional requirements.
5. Each student admitted to the Ph.D. program in Environmental Science will be appointed an initial advisor. The initial advisor will help the student design an appropriate curriculum, evaluate possible research directions or opportunities, identify an advisor, and become aware of personnel and resources available in Environmental Science at UNLV.
6. By the end of the second semester the student will select a chair of her/ his Advisory Committee and, in consultation with that chair recommend membership on the Advisory Committee. It will be

composed of a total of four members representing appropriate expertise plus one representative from the Graduate College. The Advisory Committee and the chair are subject to approval by the Graduate Coordinating Committee. The Advisory Committee will assist the student in course selection and definition of a research topic for the dissertation.

7. Students must make satisfactory progress each semester to remain in the program. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of the minimum required credits in the approved program per calendar year, maintenance of a GPA of at least 3.00, no grades below a C, and compliance with the Graduate Catalog. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise the GPA to a 3.00 or above.
8. The program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the student's graduate committee must approve the program. The program of study must be submitted by the second semester of study.
9. Satisfactory performance on a written Comprehensive Examination prepared by the Chemistry Department (with collaboration from other appropriate faculty).
10. Satisfactory oral defense of the student's dissertation proposal before the student's dissertation committee. The dissertation advisor shall be present but non-voting.
11. Satisfactory performance on an oral final defense of the dissertation. The dissertation committee will be selected by the completion of the student's first year and composed of:
  - a. Three members of the Chemistry Department (usually the Dissertation advisor and two faculty members in related fields).
  - b. Two members selected from the participating units in the Environmental Science Doctoral

- Program (including collaborating departments at UNLV and/or faculty from the DRI or UNR).
- c. One member appointed by the Graduate College.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

### **Subplan 2 Requirements: Post-Bachelor's - Environmental Policy and Management Track**

Total Credits Required: 72

#### Course Requirements

#### **Required Courses – Credits: 9**

ENV 701 - Environmental Science Pro Seminar  
ENV 702 - Environmental Problem Solving  
ENV 703 - Environmental Law and Policy Seminar

#### **Elective Courses – Credits: 45**

Complete 45 credits of advisor-approved elective coursework.

#### **Dissertation & Directed Readings – Credits: 18**

Complete 0-6 credits of Directed Readings and 12-18 credits of Dissertation. A maximum of 18 credits in combination can be counted towards the degree.

ENV 797 - Directed Readings  
ENV 798 - Dissertation Research

#### Degree Requirements

1. A minimum of 72 credits beyond the baccalaureate is required for the Ph.D. degree.
2. At least 36 credits must be from 700-level courses.
3. Requirements for completion of each of the fields in these degree programs will frequently make it necessary for students to exceed these minimum credit requirements.
4. The student is advised to examine the specific information for each field of study for additional requirements.

5. Students will design three areas of concentration in consultation with their advisor, each consisting of a minimum of three courses. Courses in an area of concentration do not need to have the same prefix or be from the same department. Areas of concentration should represent a subset of expertise that is relevant to the student's program. Areas may include, but are not limited to: anthropology, biological sciences, chemistry, communication, economics, education, geology, risk analysis, history, mathematics, political science, public administration, sociology, or statistics. Areas of concentration must be approved by the student's committee chair.
6. Each student admitted to the Ph.D. program in Environmental Science will be appointed an initial advisor. The initial advisor will help the student design an appropriate curriculum, evaluate possible research directions or opportunities, identify an advisor, and become aware of personnel and resources available in Environmental Science at UNLV.
7. Each student will be required to take ENV 701 during the first semester it is offered after the student joins the program and an advanced methods course during some subsequent semester.
8. A minimum of 12 credit hours each calendar year and at least three each semester.
9. By the end of the second semester the student will select a chair of her/ his Advisory Committee and, in consultation with that chair recommend membership on the Advisory Committee. It will be composed of a total of four members representing appropriate expertise plus one representative from the Graduate College. The Advisory Committee and the chair are subject to approval by the Graduate Coordinating Committee. The Advisory Committee will assist the student in course selection and definition of a research topic for the dissertation.
10. Students must make satisfactory progress each semester to remain in the program. Satisfactory progress is defined as filing an

approved program before the completion of nine credits of course work, completion of the minimum required credits in the approved program per calendar year, maintenance of a GPA of at least 3.00, no grades below a C, and compliance with the Graduate Catalog. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise the GPA to a 3.00 or above.

11. The program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the student's graduate committee must approve the program. The program of study must be submitted by the second semester of study. Students must also fulfill the requirements specific to their field of study as described below.
12. Students will have three additional semesters beyond completion of ENV 701 to advance to candidacy. Each student in the Ph.D. program must take a minimum of three credits of Directed Readings (ENV 797) each semester following completion of ENV 701 until he or she has successfully advanced to candidacy. A maximum of six credits of ENV 797 may count towards the 72 total credits required by the program. Each Ph.D. candidate must take a minimum of three credits of dissertation research (ENV 798) each semester until graduation. 18 credits of ENV 798 and ENV 797 combined may be included in the 72 total credits required by the program. No more than six of these may be ENV 797; a minimum of 12 and a maximum of 18 of these may be ENV 798.
13. Following completion of course work from the three areas selected, the Advisory Committee will administer a qualifying examination. Students who fail the qualifying examination may be allowed to retake it one time. The student will then defend a dissertation proposal before the student's Advisory Committee. The student's Doctoral Advisory Committee must approve the dissertation proposal. The dissertation advisor shall be present but non-voting.

Students are advanced to candidacy for the Ph.D. upon the completion of all course work and approval of the dissertation research proposal. Completion of the dissertation and its successful defense will complete degree requirements.

14. Satisfactory performance on a written Comprehensive Examination prepared by the Chemistry Department (with collaboration from other appropriate faculty).
15. Satisfactory performance on an oral final defense of the dissertation. The dissertation committee will be selected by the completion of the student's first year and composed of:
  - a. Three members of the Chemistry Department (usually the Dissertation advisor and two faculty members in related fields).
  - b. Two members selected from the participating units in the Environmental Science Doctoral Program (including collaborating departments at UNLV and/or faculty from the DRI or UNR).
  - c. One member appointed by the Graduate College.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 3 Requirements: Post-Master's - Environmental Chemistry Track (On Hold)**

Total Credits Required: 48

#### Course Requirements

#### **Required Courses – Credits: 6**

ENV 702 - Environmental Problem Solving  
ENV 703 - Environmental Law and Policy Seminar

#### **Seminar Course – Credits: 6**

CHEM 791 - Graduate Seminar

#### **Chemistry Courses – Credits: 9**



Complete 9 credits of advisor-approved CHE or WRM graduate-level courses.

### **Elective Courses – Credits: 9**

Complete 9 credits of advisor-approved elective coursework.

### **Dissertation – Credits: 18**

ENV 798 - Dissertation Research

#### Degree Requirements

1. A minimum of 48 credits beyond the master's is required for the Ph.D. degree. Additional credits may be required to address student deficiencies or build specialized expertise.
2. At least 24 credits must be from 700-level courses.
3. Requirements for completion of each of the fields in the degree program will frequently make it necessary for students to exceed minimum credit requirements.
4. The student is advised to examine the specific information for each field of study for additional requirements.
5. Each student admitted to the Ph.D. program in Environmental Science will be appointed an initial advisor. The initial advisor will help the student design an appropriate curriculum, evaluate possible research directions or opportunities, identify an advisor, and become aware of personnel and resources available in Environmental Science at UNLV.
6. By the end of the second semester the student will select a chair of her/ his Advisory Committee and, in consultation with that chair recommend membership on the Advisory Committee. It will be composed of a total of four members representing appropriate expertise plus one representative from the Graduate College. The Advisory Committee and the chair are subject to approval by the Graduate Coordinating Committee. The Advisory Committee will assist the student in course

selection and definition of a research topic for the dissertation.

7. Students must make satisfactory progress each semester to remain in the program. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of the minimum required credits in the approved program per calendar year, maintenance of a GPA of at least 3.00, no grades below a C, and compliance with the Graduate Catalog. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise the GPA to a 3.00 or above.
8. The program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the student's graduate committee must approve the program. The program of study must be submitted by the second semester of study.
9. Satisfactory performance on a written Comprehensive Examination prepared by the Chemistry Department (with collaboration from other appropriate faculty).
10. Satisfactory oral defense of the student's dissertation proposal before the student's dissertation committee. The dissertation advisor shall be present but non-voting.
11. Satisfactory performance on an oral final defense of the dissertation. The dissertation committee will be selected by the completion of the student's first year and composed of:
  - a. Three members of the Chemistry Department (usually the Dissertation advisor and two faculty members in related fields).
  - b. Two members selected from the participating units in the Environmental Science Doctoral Program (including collaborating departments at UNLV and/or faculty from the DRI or UNR).
  - c. One member appointed by the Graduate College.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Subplan 4 Requirements: Post-Master's - Environmental Policy and Management Track**

Total Credits Required: 48

Course Requirements

#### **Required Courses – Credits: 9**

ENV 701 - Environmental Science Pro Seminar  
ENV 702 - Environmental Problem Solving  
ENV 703 - Environmental Law and Policy Seminar

#### **Elective Courses – Credits: 21**

Complete 21 credits of advisor-approved elective coursework.

#### **Dissertation & Directed Readings – Credits: 18**

Complete 0-6 credits of Directed Readings and 12-18 credits of Dissertation. A maximum of 18 credits in combination can be counted towards the degree.

ENV 797 - Directed Readings  
ENV 798 - Dissertation Research

Degree Requirements

1. A minimum of 48 credits beyond the master's is required for the Ph.D. degree. Additional credits may be required to address student deficiencies or build specialized expertise.
2. At least 24 credits must be from 700-level courses.
3. Requirements for completion of each of the fields in these degree programs will frequently make it necessary for students to exceed these minimum credit requirements.
4. The student is advised to examine the specific information for each field of study for additional requirements.
5. Students will design three areas of concentration in consultation with their advisor, each consisting of a minimum of three courses. Courses in an area of concentration do not need to have the same prefix or be from the same department.

Areas of concentration should represent a subset of expertise that is relevant to the student's program. Areas may include, but are not limited to: anthropology, biological sciences, chemistry, communication, economics, education, geology, risk analysis, history, mathematics, political science, public administration, sociology, or statistics. Areas of concentration must be approved by the student's committee chair.

6. Each student admitted to the Ph.D. program in Environmental Science will be appointed an initial advisor. The initial advisor will help the student design an appropriate curriculum, evaluate possible research directions or opportunities, identify an advisor, and become aware of personnel and resources available in Environmental Science at UNLV.
7. Each student will be required to take ENV 701 during the first semester it is offered after the student joins the program and an advanced methods course during some subsequent semester.
8. A minimum of 12 credit hours each calendar year and at least three each semester.
9. By the end of the second semester the student will select a chair of her/ his Advisory Committee and, in consultation with that chair recommend membership on the Advisory Committee. It will be composed of a total of four members representing appropriate expertise plus one representative from the Graduate College. The Advisory Committee and the chair are subject to approval by the Graduate Coordinating Committee. The Advisory Committee will assist the student in course selection and definition of a research topic for the dissertation.
10. Students must make satisfactory progress each semester to remain in the program. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of the minimum required credits in the approved program per calendar year, maintenance of a GPA of at least 3.00, no grades below a C, and compliance with the

Graduate Catalog. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise the GPA to a 3.00 or above.

11. The program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the student's graduate committee must approve the program. The program of study must be submitted by the second semester of study. Students must also fulfill the requirements specific to their field of study as described below.
12. Students will have three additional semesters beyond completion of ENV 701 to advance to candidacy. Each student in the Ph.D. program must take a minimum of three credits of Directed Readings (ENV 797) each semester following completion of ENV 701 until he or she has successfully advanced to candidacy. A maximum of six credits of ENV 797 may count towards the 72 total credits required by the program. Each Ph.D. candidate must take a minimum of three credits of dissertation research (ENV 798) each semester until graduation. 18 credits of ENV 798 and ENV 797 combined may be included in the 72 total credits required by the program. No more than six of these may be ENV 797; a minimum of 12 and a maximum of 18 of these may be ENV 798.
13. Following completion of course work from the three areas selected, the Advisory Committee will administer a qualifying examination. Students who fail the qualifying examination may be allowed to retake it one time. The student will then defend a dissertation proposal before the student's Advisory Committee. The student's Doctoral Advisory Committee must approve the dissertation proposal. The dissertation advisor shall be present but non-voting. Students are advanced to candidacy for the Ph.D. upon the completion of all course work and approval of the dissertation research proposal. Completion of the dissertation and its successful defense will complete degree requirements.

14. Satisfactory performance on a written Comprehensive Examination prepared by the Chemistry Department (with collaboration from other appropriate faculty).
15. Satisfactory performance on an oral final defense of the dissertation. The dissertation committee will be selected by the completion of the student's first year and composed of:
  - a. Three members of the Chemistry Department (usually the Dissertation advisor and two faculty members in related fields).
  - b. Two members selected from the participating units in the Environmental Science Doctoral Program (including collaborating departments at UNLV and/or faculty from the DRI or UNR).
  - c. One member appointed by the Graduate College.

#### Graduation Requirements

*See Plan Graduation Requirements below.*

#### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## Doctor of Philosophy - Public Affairs

### Plan Description

The Public Affairs Ph.D. is an interdisciplinary degree drawing upon the faculty throughout the college. The Mission of the Public Affairs Ph.D. is to serve as the nexus between the academic community and the world of service and practice in the private, non-profit, and public sectors.

The degree will prepare individuals to study issues facing society in the context of public, private, and nonprofit organizations and institutions. Students entering the program will have the ability to follow two career paths: 1) to conduct research, consult, and serve as analysts within and to organizations; or 2) to enter the academic world at the college or university level.

The degree program is designed to promote scholarship and innovation in public affairs. The degree program will provide for significant interaction between students and faculty in learning, research, and application of expertise to public issues. In addition, the degree will prepare those students interested in entering the academic world with the knowledge, skills, and abilities to be successful teachers and researchers at the college and university level.

The program will provide students with carefully supervised teaching experience as graduate assistants; offer mentoring in research and publication through graduate seminars; and mentor them in attending professional meetings and presenting papers.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Admission to the program is done only in the fall semester. Applicants should check the School of Environmental and Public Affairs and the Graduate College web sites for the specific application deadline, <http://sepa.unlv.edu/> and <http://graduatecollege.unlv.edu/>

Admission requirements include:

1. Completed Graduate College Application.
2. An earned master's degree (or another advanced graduate degree, i.e. J.D.) from a regionally accredited institution with a minimum GPA of 3.50.
3. Three letters of recommendation including one letter from an individual who can evaluate the applicant's ability to conduct graduate work at the Ph.D. level. A second letter of recommendation must come from someone who has supervised the candidate in a work setting.
4. A current resume.
5. A statement of purpose explaining the applicant's career goals and why the doctorate would enhance the likelihood of achieving those goals. The statement should also explain why the applicant believes that he or she is qualified to conduct academic work at the advance graduate level. Finally, the statement should address the specific area of specialization the student would like to emphasize.
6. A writing sample from previous graduate work or a significant publication completed in the work setting that is directly attributable to the applicant.
7. A satisfactory GRE score (the expected minimum score is a combined 1,000 for the verbal and quantitative sections; equivalent LSAT scores would be acceptable).
8. Students may be asked to meet with a member of the admission committee for a personal interview.
9. All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and*

*corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 46

Course Requirements

### **Required Courses – Credits: 10**

PAF 701 - Origins and Development of Public Policy in America

PAF 702 - Role of Government in Society

PAF 703 - Individual and Group Decision Making

PAF 704 - Public Affairs as a Profession

### **Analytical Studies Core Courses – Credits: 12**

Complete the following two courses plus an additional 6 credits of advisor-approved courses selected to enhance your ability to conduct research in your area of interest:

PAF 710 - Theory and Design of Research

PAF 711 - Advanced Seminar in Quantitative Research in Public Affairs

### **Area of Specialization Courses – Credits: 12**

Complete 12 credits of advisor-approved elective coursework at the 700-level in a specific area of interest. Courses may be taken from more than one department. Approval of the plan of study in the area of concentration must be received before taking any course. Examples of area of specialization include: Social Policy, Public Management, Criminal Justice, Communications and Public Discourse, Human Resource Management, and Program Evaluation.

### **Dissertation – Credits: 12**

PAF 799 - Dissertation Research in Public Affairs

Degree Requirements

1. Completion of a minimum of 46 credit hours with a minimum GPA of 3.00.
2. In the first three semesters, and the intervening summer, students in the program

enroll in courses as a cohort. Except for one semester where the students take seven credits, all students must enroll in the designated six credits.

3. Students will, in conjunction with the PAF Ph.D. Program Coordinator, obtain an advisor who will be the lead member of the student's Doctoral Examination Committee.
4. Students should be aware that the Graduate College limits course work for a degree to six years. Students should obtain a copy of the Graduate College handbook for graduate students available on the Graduate College web site.
5. Students will take the equivalent of four exams before completing the degree.
  1. At the end of the core public affairs course work and the analytical studies work, students will take exams in each area. A student must pass both written comprehensive exams to remain in the program. Exams are expected to be taken at after the third semester of course work.
  2. The equivalent of a third exam will be taken by the student when the student completes and defends the dissertation prospectus. The prospectus should demonstrate a thorough knowledge of the subject area under investigation and a detailed plan on how the student will conduct her/his original research.
  3. Students, on completion of their dissertation, will present their findings to the public (and their Examination Committee) and orally defend the research.
6. Students are expected to write a dissertation demonstrating both knowledge of a specific topic and the ability to conduct high quality original research. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College

Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

7. Students must enroll in six credits of dissertation work each semester they are working on the dissertation.

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

## **Doctor of Philosophy - Workforce Development and Organizational Leadership**

### **Plan Description**

*The Workforce Development and Organization Leadership, Ph.D. program is currently on hold. For more information about The Workforce Development and Organization Leadership, Ph.D. program, please contact the School of Environmental and Public Affairs at (702) 895-4440.*

The Workforce Development and Organization Leadership, Ph.D. program is focused on developing courageous, creative leaders and researchers for the workplace of the 21st century, where practices for preparing the workforce are consistently being reinvented. Technological advances have transformed most processes in the workplace and leaders in Workforce Development, must maintain their currency in workplace trends to make sure that their organizations remain competitive. This program is available to full and part-time students, and is designed for both traditional students and working adults.

The goal of the Workforce Development and Organizational Leadership program is to promote excellence, opportunity, and leadership among professionals in workforce education and development. A strong cadre of professionals in the area of workforce development and organizational leadership will enhance the economic vitality of Nevada. The program's target populations are individuals working in a number of areas including the public sector, post-secondary education institutions, social services and non-profit industries, and the private sector. The program will prepare students for both academic and non-academic careers. The former will include teaching at colleges and universities; the latter will include public, private, and non-profit organizations and institutions. The program should strengthen the professional workforce through improving the cultural and ethnic diversity of individuals in this profession. The current program is known to be one of the most diverse programs at UNLV.

Students will enroll in six credits each semester, as well as the summer. Degree completion should take a minimum of four years, but could take up to six years.

The Workforce Development and Organization Leadership Ph.D. require a minimum of 57 credit hours. Students are encouraged to take at least two classes each semester. Early in their program, students are specifically advised to take those courses in the program and research core. Faculty work with students early-on to determine their cognate area and to identify the sequence of courses which will satisfy this requirement.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

All applications for admission to the Workforce Development and Organizational Leadership, Ph.D. program are made to the Graduate College but are reviewed by the Coordinators of the Workforce Development and Organizational Leadership program. The committee considers all training and preparation, general abilities, and previous experience.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements. An application form and official transcripts of all college level work must be submitted online to the Graduate College. Applicants must have earned a master's degree from an accredited institution with a minimum GPA of 3.2. (Under special circumstances the department may consider applicants with lower GPAs.)

In addition to the online application, the following items must be submitted:

1. Satisfactory scores on the Graduate Record Examination (GRE) General Test. The recommended minimum total score of 297.

Scores must be current and submitted directly from ETS.

2. Three professional and academic recommendations, stating that the applicant can do doctoral-level work.
3. A statement of purpose in which the applicant describes specific interests in and purpose for pursuing a Ph.D. in Workforce Development and Organizational Leadership. The purpose statement should also include a description of the applicant's background for advanced work in this field as well as academic and professional goals.
4. A professional resume which documents their related work experience in the field.
5. A writing sample in the form of a master's thesis or original research paper of substantial length.

Applicants that successfully meet the above criteria for admission will be invited to an interview conducted by members of the program.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 57

Course Requirements

#### **Required Courses – Credits: 9**

WDL 780 - Leadership in Workforce Education and Development

WDL 787 - Organization Development & Change: Theories to Practice

WDL 785 - Global and Diversity Perspectives in Workforce Development

#### **Public Policy Course – Credits: 3**

Complete one of the following courses:

WDL 767 - Review and Analysis of Policies in Workforce Development

PAF 701 - Origins and Development of Public Policy in America

**Strategic Planning Course – Credits: 3**

Complete one of the following courses:

WDL 788 - Strategic Planning and Management  
PUA 775 - Strategic Planning and Program Evaluation for Nonprofits

**Research Courses – Credits: 6**

WDL 786 - Critique of Research in Workforce Development and Organizational Leadership  
WDL 789 - Professional Development and Research

**Qualitative & Quantitative Courses – Credits: 6**

Complete one qualitative and one quantitative advisor-approved course.

**Research Elective Course – Credits: 3**

Complete one advisor-approved advanced statistics course.

**Cognate Courses – Credits: 12**

Complete 12 credits of advisor-approved cognate.

**Prospectus Course – Credits: 3**

WDL 796 - Workforce Development & Organizational Leadership Prospectus

**Dissertation – Credits: 12**

WDL 799 - Doctoral Dissertation

Degree Requirements

1. Complete a minimum of 57 credit hours of study beyond the master's degree as stated in the candidate's program of study.
2. Maintain an overall grade point average of 3.0 or higher for all coursework taken at the doctoral level.
3. In consultation with his/her advisor, a student will organize a dissertation committee of at least three departmental members. In addition, a fourth member from outside the department, known as the

Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

4. Complete the residency requirement (Residency Requirement: Successful completion of Comprehensive Exam). The comprehensive exam entails three parts. Students will be asked to submit written documents and prepare an oral presentation on their proposed study and options for a more focused study. The student will be required to propose up to 5 research questions/studies which reflect the gaps in the literature.
5. Pass a written comprehensive examination and complete the dissertation proposal prior to advancing to candidacy and prior to registering for dissertation credits.
  - a. After committee approval, the student will be allowed to take the prospectus course which will allow them to move forward with their proposal.
  - b. Upon completion of the prospectus course and after the dissertation chair has approved the proposal, it is considered by the student's committee at a scheduled meeting of the committee.
  - c. Committee members are given the proposal two weeks prior to the committee meeting. The committee will carefully examine the proposal, taking into consideration the organization and presentation, theoretical discussion, review of the literature, research questions/hypotheses, methods, and quality of writing. The committee should assist the student by making recommendations for improving the study. The committee may require the student to rewrite all or selected parts of the proposal. When the committee is satisfied with the proposal, all members sign



- the appropriate forms to indicate their approval.
- d. The committee must formally approve any changes in the study (e.g., as a result of pilot-testing). Such changes will be appended to the proposal.
  - e. Advancing to candidacy involves:
    - i. Completion of the program and research core and the cognate.
    - ii. Completion of the comprehensive written and oral exams.
    - iii. Successful completion of the proposal defense.
6. Complete and successfully defend their dissertation.
- a. The candidate must follow the guidelines set forth in the Guide to Preparing & Submitting a Thesis or Dissertation available from the Graduate College.
  - b. The dissertation is culminating experience for the Ph.D. in Workforce Development and Organizational Leadership. It must be of substantial length, and contain original research and interpretation on a topic in the field. Students will be required to enroll in six credits every semester they are working on the dissertation. Twelve credits of dissertation credits (including defense) are required and will count toward the degree (more credits may be taken but will not count towards the Ph.D.).
3. The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline. The defense must be advertised and is open to the public. .

### **Plan Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her dissertation by the posted

## Master of Arts - Urban Leadership

### Plan Description

The primary goal of the Urban Leadership M.A. program is to prepare the leaders of education and youth services to lead and manage schools, governmental agencies, business and industry, and non-profit agencies in response to the complex challenges of 21st century society.

The Urban Leadership M.A. program is based upon an approach to education that recognizes the interdisciplinary nature of public-based leadership, where schools, government agencies, non-profit social service agencies, and business and industry are all contributors to the well-being of the community, and as such must develop an understanding of the larger systems impacting the community members they serve.

### Educational Leadership Track:

This systems approach to leadership employed in this strand focuses on innovative, results-oriented programs that have helped transform urban communities and schools. Successful Education Strand Urban Leadership graduates will have the knowledge, skills, and dispositions to (a) create a positive organizational culture that effectively engages members of diverse communities; (b) identify issues and take actions focused on producing meaningful and effective change; (c) manage data and use data-driven decision-making in strategic planning of organizational goals and priorities; (d) ensure transparent accountability processes and procedures that foster community trust; (e) model leadership grounded in integrity and ethical behavior; and, (f) understand the needs of stakeholders in an urban environment.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

All applications for admission to the Urban Leadership program are made to the Graduate College but are reviewed by the Urban Leadership Admissions Committee. The committee considers all materials submitted as part of the application process, including training and preparation, general abilities, and previous experience. An online application, and official transcripts of all college level work, must be submitted to the Graduate College. Applicants should review and follow the Graduate College Admission and Registration Requirements.

In addition, the applicant should have:

1. An earned bachelor's degree in an acceptable field of undergraduate study.
2. A GPA of at least 2.75 overall or 3.00 in the last 60 semester hours of undergraduate study.
3. At least 3 years of professional experience.
4. Graduate Record Exam (GRE), Graduate Management Admissions Test (GMAT), or Law School Admissions Test (LSAT) scores. GRE is preferred.
5. A minimum of two letters of recommendation providing evidence of the applicant's leadership potential and ability to successfully complete graduate-level work.
6. A résumé indicating educational and professional experience, including leadership experiences.
7. A writing sample based on a prompt or questions provided by the program.
8. Individual interview

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements {insert hyperlink}.

### Educational Leadership Track:

For students in the Educational Leadership Track, individuals seeking a Nevada endorsement as an administrator of a school must hold a valid elementary, middle school/junior high, secondary or special teaching license (excluding Business and Industry or special qualifications) and provide

evidence of 3-years of teaching experience in K-12 schools approved by the state.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

See Subplan Requirements below.

#### **Subplan 1 Requirements: Educational Leadership Track**

Total Credits Required: 36

Course Requirements

#### **Foundation Courses – Credits: 6-18**

Complete 6-18 credits from the following list of course

ULD 720 - Introduction to Urban Leadership  
ULD 721 - Governance and the Urban Community  
ULD 722 - Research & Analytical Methods  
ULD 723 - Public Goods and Public Finance  
ULD 724 - Organizations and Organizational Behavior  
ULD 725 - Seminar In Organization Theory  
ULD 726 - Law and Public Policy

#### **Field Experience Course – Credits: 6**

ULD 742 - Leadership Field Experience II

#### **Specialty Area Courses – Credits: 10-22**

Complete 10-22 credits of advisor-approved courses.

#### **Capstone Experience – Credits: 2**

ULD 780 - Capstone Seminar: Educational Leadership

Degree Requirements

See Plan Degree Requirements below.

Graduation Requirements

See Plan Graduation Requirements below.

### **Plan Degree Requirements**

1. The Urban Leadership M.A. requires 36 credits of approved course work.
2. All students will meet with an academic advisor and complete a formal degree plan, which must have the approval of the M.P.A. coordinator.
3. Students must obtain a B average in order to graduate. A student can have no more than one grade less than a B-. It is assumed that students working full time and taking courses on a part-time basis can complete the UL program in two years of study.
4. Complete a poster presentation as a culminating degree experience. The poster presentation serves as a portfolio and oral comprehensive examination. This presentation will demonstrate candidates' proficiency in meeting program standards and connecting theory to practice.

### **Plan Graduation Requirements**

1. Students must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must complete the capstone experience and poster presentation.

## Master of Public Administration

### Plan Description

The Master of Public Administration degree is designed to provide the public administrator with an understanding of the governmental and economic environment in which he or she must work. In addition to serving administrators in governmental organizations, the program is appropriate for career military personnel, nonprofit organization administrators, and the private sector professionals whose responsibilities involve extensive contact with governmental agencies and public sector personnel.

Courses within the program are scheduled during the evenings and weekends to meet the needs of employed students. Graduates of the program will have an understanding of governmental structure and organizations, the essential principles of public management, and the theory and methods of research concerning public administration and the development of public policy. Graduate work in the program provides an awareness of the organizational contexts within which public sector administrators make and implement decisions, as well as training in the skills of administration and management. The M.P.A. is fully accredited by the National Association of Schools of Public Affairs and Administration (N.A.S.P.A.A.).

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

All applications for admission to the M.P.A. program are made to the Graduate College but are reviewed by the M.P.A. Admission's Committee. The committee considers all training and preparation, general abilities, and previous experience.

The applicant should have:

1. An earned bachelor's degree in an acceptable field of undergraduate study from a regionally accredited college or university.
2. A GPA of at least 2.75 overall or 3.00 in the last 60 semester hours of undergraduate study.
3. Satisfactory score on either the Graduate Record Examination (GRE) or Graduate Management Admissions Test (GMAT). Applicants with an undergraduate GPA of 3.5 and five years of responsible administrative or professional work experience in the public or nonprofit sector need not submit GRE or GMAT scores. Applicants who have completed the department's Graduate Certificate in Public Management with a GPA of 3.5 or higher need not submit GRE or GMAT scores. The GRE scores should be sent directly to the School of Environmental and Public Affairs.
4. Three letters of reference sent to the School.
5. A resumé indicating educational and professional experience sent to the School of Environmental and Public Affairs.
6. A personal statement describing how the MPA fits into the applicants professional goals.
7. An official transcript from the college or university where the applicant received a bachelor's degree should be sent to the School of Environmental and Public Affairs and Graduate College.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

### Subplan 1 Requirements: Public Administration Concentration

Total Credits Required: 36

Course Requirements

**Required Courses – Credits: 15**

PUA 701 - Governance and the Urban Community  
PUA 703 - Seminar In Organization Theory  
PUA 705 - Public Goods and Public Finance  
PUA 707 - Law and Public Policy  
PUA 708 - Organizations and Organizational Behavior

**Analytic Skills Courses – Credits: 3**

PUA 723 - Research and Analytical Methods

**Elective Courses – Credits: 9**

Complete 9 credits of elective coursework from any graduate-level Public Administration (PUA) course or graduate-level social science, business, or other relevant course with the approval of the graduate coordinator or department chair.

**Writing Intensive Elective Courses – Credits: 3**

Complete 3 credits of advisor-approved Public Administration (PUA) coursework. Whether a course satisfies this requirement depends on the writing assignments and how the instructor structures them. The courses that satisfy this requirement for an upcoming semester will be available from the department and the graduate coordinator.

**Culminating Experience– Credits: 6**

Complete the following courses in sequence

PUA 725 - Policy Analysis and Program Evaluation  
PUA 729 - MPA Capstone Experience

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 2 Requirements: Non-Profit Management Concentration**

Total Credits Required: 36

Course Requirements

**Required Courses – Credits: 18**

PUA 701 - Governance and the Urban Community  
PUA 703 - Seminar In Organization Theory  
PUA 705 - Public Goods and Public Finance  
PUA 707 - Law and Public Policy  
PUA 708 - Organizations and Organizational Behavior  
PUA 770 - Nonprofit Management and Theories of the 3rd Sector

**Analytic Skills Courses – Credits: 3**

PUA 723 - Research and Analytical Methods

**Non-Profit Management Courses – Credits: 9**

Complete 12 hours of the following courses, one course (3 credits) must be writing intensive:

PUA 610 - Grant Writing for Public and Nonprofit Managers  
PUA 611 - Policy Advocacy and Lobbying  
PUA 612 - Performance Measurement for Public and Nonprofit Organizations  
PUA 613 - Leadership and Ethics for Public and Nonprofit Managers  
PUA 771 - Grantwell  
PUA 774 - Community Outreach and Volunteerism  
PUA 775 - Strategic Planning and Program Evaluation for Nonprofits  
PUA 776 - Development for Nonprofit Managers

**Culminating Experience – Credits: 6**

Complete the following courses in sequence

PUA 725 - Policy Analysis and Program Evaluation  
PUA 729 - MPA Capstone Experience

Degree Requirements

*See Plan Degree Requirements below.*

Graduation Requirements

*See Plan Graduation Requirements below.*

## Plan Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must complete the two end of program courses (PUA 725 and PUA 729) or an approved professional paper.

## Plan Degree Requirements

1. Completion of a minimum of 36 credit hours with a minimum GPA of 3.00.
2. All students entering the program should start with PUA 701 - Principles of Public Administration, a class designed to provide a general overview of the field. With this foundation, the student then embarks upon the rest of the program.
3. Students may enroll in PUA 725 only after they have completed at least 24 credit hours toward the MPA degree. The order of the end-of-course sequence (PUA 725) is determined by when the student completes the required 24 credit hours.
4. Students enroll in PUA 729 - MPA Capstone Experience to complete their final project which is taken after completing PUA 725. The final project applies analytical skills to an issue of interest to a governmental or nonprofit agency and should be completed near the end of a student's program of study.
5. Students must obtain a B average in order to graduate. A student can have no more than one grade less than a B-. It is assumed that students working full time and taking courses on a part-time basis can complete the M.P.A. program in two and one-half years of study.
6. For students without appropriate professional administrative experiences, the degree requires an internship and a total of 39 hours.

## Master of Science - Environmental Science (On Hold)

### Plan Description

The School of Environmental and Public Affairs administers an interdisciplinary program offering Environmental Science M.S. and Ph.D. degrees.

### *Description and Objectives of the Program*

The graduate program in Environmental Science fosters an understanding of interrelationships between disciplines in addition to requiring depth of study in specialized areas. It emphasizes the need to understand the social context and environmental consequences of using science and technology to serve human needs. We require all students to take two core courses: Environmental Problem Solving (ENV 702), and Environmental Law and Policy Seminar (ENV 703). Other course work in support of a student's specialization generally includes courses from several departments and student research often crosses disciplinary lines.

The general objectives of offering a M.S. degree in Environmental Science at UNLV are to:

1. Promote the understanding of environmental systems, the relationship among science, environmental management and the human condition, and the effective management of that relationship.
2. Respond to local, state, regional, national and international needs for environmental professionals with advanced degrees.
3. Assist in the process of shifting toward more sustainable practices in our local community, state and throughout the world.
4. Encourage graduate students, undergraduate students, and faculty from various departments, colleges and NSHE institutions to collaborate in an effort to find new and creative solutions to environmental problems.
5. Assist in the development of expertise that will both support excellence in Environmental Science at UNLV and lead to

- the enhancement of disciplinary graduate programs of each department.
6. Provide opportunities and encouragement for both disciplinary and interdisciplinary student and faculty interactions that will promote team-building; undergraduate, graduate, faculty mentoring activities; community problem-solving; and enhance instructional programs at UNLV.
  7. Support graduate student research with grants and contracts from extramural sources.
  8. Encourage faculty and graduate student research on environmental projects developed in cooperation with the UNLV International Programs Office and institutions abroad.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

### **Plan Admission Requirements**

Applications available on the UNLV Graduate College website.

Applications are reviewed twice per year: February 15 and November 15. Requirements 1-5 below must be met before applying to the program. Items 7 and 8 must be submitted directly to the School of Environmental and Public Affairs office prior to the application review dates.

1. A bachelor's degree from an accredited college or university.
2. Minimum of three credits of calculus or three credits of statistics and at least 12 credit hours in physical and/or biological sciences with grades of B or better.
3. A GPA of at least 3.00 on a 4.00 scale is required for admission.
4. Scores at or above the 50th percentile in all three areas of the Graduate Record Exam.
5. International students must take and obtain a score of at least 550 on the TOEFL exam.
6. Application to the Graduate College, submitted using the on-line application system.

7. Three letters of recommendation from professors, employers and/or professional colleagues.

8. A 1-2 page "Statement of Objectives." The Graduate Coordinating Committee uses the Statement of Objectives to determine whether the necessary physical and intellectual resources exist at UNLV to allow the applicant to achieve her/his objectives. The statement will be used to identify and appoint an appropriate advisor for the first year of graduate study, and make other decisions regarding admissibility.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

*See Subplan Requirements below.*

#### **Subplan 1 Requirements: Environmental Chemistry Track**

Total Credits Required: 33

Course Requirements

#### **Required Courses – Credits: 6**

ENV 702 - Environmental Problem Solving  
ENV 703 - Environmental Law and Policy Seminar

#### **Seminar Course – Credits: 6**

CHEM 791 - Graduate Seminar (1 credit)

#### **Chemistry Courses – Credits: 9**

Complete 9 credits of advisor-approved CHE or WRM courses.

#### **Elective Courses – Credits: 6**

Complete 6 credits of advisor-approved elective coursework.

### **Thesis – Credits: 6**

ENV 795 - Thesis

#### Degree Requirements

1. A minimum of 33 credits beyond the baccalaureate, including a minimum of six credits for thesis, is required for the M.S. degree.
2. At least 21 of the 33 credits must be 700-level courses.
3. Requirements for completion of each of the fields in the degree program will frequently make it necessary for students to exceed minimum credit requirements.
4. The student is advised to examine the specific information for each field of study for additional requirements.
5. Each student admitted to the M.S. degree program in Environmental Science will be appointed an initial advisor. The initial advisor will help the student design an appropriate curriculum, evaluate possible research directions or opportunities, identify an advisor, and become aware of personnel and resources available in Environmental Science at UNLV.
6. By the end of the first semester the student will select a chair of her/ his Advisory Committee and, in consultation with that chair recommend membership on the Advisory Committee. It will be composed of a total of four members representing appropriate expertise plus one representative from the Graduate College. The Advisory Committee and the chair are subject to approval by the Graduate Coordinating Committee. The Advisory Committee will assist the student in course selection and definition of a research topic for the thesis.
7. Students must make satisfactory progress each semester to remain in the program. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of the minimum required credits in the

approved program per calendar year, maintenance of a GPA of at least 3.00, no grades below a C, and compliance with the Graduate Catalog. Any student whose GPA falls below 3.00 will be placed on probation and will have one semester to raise the GPA to a 3.00 or above.

8. The program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the student's graduate committee must approve the program. The program of study must be submitted by the second semester of study.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. Student must submit his/her approved, properly formatted hard-copy thesis to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 2 Requirements: Environmental Policy and Management Track**

Total Credits Required: 33

#### Course Requirements

### **Required Courses – Credits: 9**

ENV 701 - Environmental Science Pro Seminar

ENV 702 - Environmental Problem Solving

ENV 703 - Environmental Law and Policy Seminar

### **Elective Courses – Credits: 18-21**

Students completing the Thesis, Professional Paper, or Practicum must complete a minimum of 18 credits of advisor-approved elective coursework, while students completing the Examination must complete a minimum of 21 credits of advisor-approved elective coursework.



### **Culminating Experience – Credits: 3-6**

Complete one of the following culminating experiences:

#### **Thesis – Credits: 6**

ENV 795 - Thesis

#### **Professional Paper – Credits: 6**

ENV 792 - Environmental Sciences Professional Paper Research

#### **Practicum – Credits: 6**

Complete either 3 credits each of ENV 749 & ENV 790, or 6 credits of ENV 790.

ENV 749 - Environmental Sciences Teaching Practicum (3 credits)

ENV 790 - Internship in Environmental Science (3-6 credits)

#### **Examination – Credits: 3**

ENV 791 - Environmental Sciences Examination Preparation

#### **Degree Requirements**

1. A minimum of 33 credits beyond the baccalaureate, including a minimum of six credits for thesis, is required for the M.S. degree.
2. At least 21 of the 33 credits must be 700-level courses.
3. Requirements for completion of each of the fields in these degree programs will frequently make it necessary for students to exceed these minimum credit requirements.
4. The student is advised to examine the specific information for each field of study for additional requirements.
5. Students will design two areas of concentration in consultation with their advisor, each consisting of a minimum of three courses. Courses in an area of concentration do not need to have the same prefix or be from the same department. Areas of concentration should represent a subset of expertise that is relevant to the

student's program. Areas may include, but are not limited to: anthropology, biological sciences, chemistry, communication, economics, education, geology, risk analysis, history, mathematics, political science, public administration, sociology, or statistics. Areas of concentration must be approved by the student's committee chair.

6. Each student admitted to the M.S. degree program in Environmental Science will be appointed an initial advisor. The initial advisor will help the student design an appropriate curriculum, evaluate possible research directions or opportunities, identify an advisor, and become aware of personnel and resources available in Environmental Science at UNLV.
7. Each student will be required to take ENV 701 during the first semester it is offered after the student joins the program and an advanced methods course during some subsequent semester.
8. Complete a minimum of 12 credit hours each calendar year and at least three each semester.
9. By the end of the first semester the student will select a chair of her/his Advisory Committee and, in consultation with that chair recommend membership on the Advisory Committee. It will be composed of a total of four members representing appropriate expertise plus one representative from the Graduate College. The Advisory Committee and the chair are subject to approval by the Graduate Coordinating Committee. The Advisory Committee will assist the student in course selection and definition of a research topic for the thesis.
10. Students must make satisfactory progress each semester to remain in the program. Satisfactory progress is defined as filing an approved program before the completion of nine credits of course work, completion of the minimum required credits in the approved program per calendar year, maintenance of a GPA of at least 3.00, no grades below a C, and compliance with the Graduate Catalog. Any student whose GPA falls below 3.00 will be placed on probation

and will have one semester to raise the GPA to a 3.00 or above.

11. The program of study will be developed by the student and advisor and filed with the Graduate College. Prior to filing, the student's graduate committee must approve the program. The program of study must be submitted by the second semester of study.
12. By the end of the first full year in the program, each student will choose one of four options for completing the degree (Thesis, Professional Paper, Examination, or Practicum).
  - a. Thesis Option: Students in the Thesis Option, in addition to requirements previously noted, must complete a minimum of 33 credits beyond the baccalaureate, including six credits of thesis, and must complete and orally defend a thesis. Each student who wishes to earn the M.S. under the thesis option must, by the end of his or her first full year in the program, have completed a thesis prospectus, approved by the Advisory Committee. Students in the Thesis Option may not count ENV 791 or ENV 792 credits towards the degree and may count no more than six credits of ENV 749 and ENV 790 combined towards the degree.
  - b. Professional Paper Option: Students in the Professional Paper Option, in addition to requirements previously noted, must complete a minimum of 33 credits beyond the baccalaureate, including six credits of professional paper research, and must complete and orally defend a professional paper. Each student who wishes to earn the M.S. under the Professional Paper Option must, by the time he or she has completed one full year in the program, have completed a professional paper prospectus, approved by the Advisory Committee. Students in the

professional Paper Option may not count ENV 791 or ENV 795 credits towards the degree and may count no more than six credits of ENV 749 and ENV 790 combined toward the degree.

- c. Examination Option: Students in the Examination option, in addition to requirements previously noted, must complete a minimum of 33 credits beyond the baccalaureate, including three credits of examination preparation under the direction of a graduate program chair, and must complete a written examination that will take place over a two-day period, eight hours each day. The student's advisor will design the examination and determine the dates of completion and rubric for grading. The Advisory Committee may require an oral defense of the examination. Students in the Examination Option may not count ENV 792 or ENV 795 credits towards the degree and may count no more than six credits of ENV 749 and ENV 790 combined towards the degree.
- d. Practicum Option: Students in the Practicum Option, in addition to requirements previously noted, must complete a minimum of 33 credits beyond the baccalaureate, including a minimum of six credits combined of Internship (ENV 790) and Teaching practicum (ENV 749). The Advisory Committee must approve the student's proposed program of courses and approve a final report prepared by the student outlining the Practicum experience and explaining its relationship to the selected course of study. Students in the Practicum Option may not count ENV 791, ENV 792 or ENV 795 credits towards the degree and may count no more than nine credits of ENV

749 and ENV 790 combined  
towards the degree.

#### Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Successfully complete an examination or practicum, or successfully complete and orally defend a thesis or professional paper. The defense must be advertised and is open to the public.
3. If a thesis is completed, the student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

#### Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

## Master of Science - Executive Crisis and Emergency Management (ECEM)

#### Plan Description

The ECEM program is a professional degree designed to maximize the expertise of experienced professionals from numerous disciplines, levels, and regions, thereby providing the opportunity to both advance individual philosophies and to gain broad exposure to a wide variety of other techniques and methodologies to effectively address natural, intentional, and technical disasters. The degree offers enhanced professional growth for the individual and a contribution to a developing body of knowledge. The program is intended for mid- to-upper level incident response managers and policy makers from the federal, state, and local level. Private sector candidates must have strong background in incident response, or be in a position that requires significant responsibility and governmental interface in this arena.

Please note that the ECEM program is a special tuition and fee based program approved by the Board of Regents. To find the current fee structure, please call (702) 895-2640 or (702) 895-4835.

#### Plan Execution

1. Students will evaluate, develop, and implement exercises designed to test their ability to apply course content.
2. Students will be required to complete course work through the University's online educational system.
3. Students are expected to enroll in a full three-course load each module and finish with the initial cohort.

**For more information about your program, including your graduate program handbook and learning outcomes please visit the Degree Directory.**

#### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

1. A baccalaureate degree from a regionally accredited college or university.
2. A minimum grade point average of 2.75 overall for all undergraduate work.
3. A completed Graduate College application.
4. Submission of official transcripts from all colleges and universities attended.
5. A resume which should indicate professional experience.
6. A personal statement
7. Three letters of recommendation.
8. A nonrefundable admission application fee, payable by credit card, check, or money order. Checks or money orders should be made payable to Board of Regents.
9. Satisfactory GRE scores in the verbal and quantitative sections may be required.

All the above should be submitted online through the Graduate College admissions application.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### **Plan Requirements**

Total Credits Required: 36

Course Requirements

### **Required Courses – Credits: 33**

ECEM 711 - Crisis and Emergency Management  
 ECEM 712 - Science of Catastrophes  
 ECEM 713 - Evolution of Terrorism  
 ECEM 714 - Intergovernmental Affairs  
 ECEM 721 - Organizational Leadership  
 ECEM 722 - Community Preparedness  
 ECEM 723 - Human Considerations  
 ECEM 724 - Exercise Design and Reponse Plan  
 ECEM 731 - Risk Assessment, Mitigation and Communication  
 ECEM 732 - Prevention and Planning  
 ECEM 733 - Response and Recovery

### **Culminating Experience – Credits: 3**

ECEM 734 - Research in the Implementation of Concepts in Crisis and Emergency Management

Degree Requirements

1. Completion of a minimum of 36 credit hours with a minimum GPA of 3.00.
2. The degree requires the twelve courses listed above (36 credits), taken both on-line and on campus. All students who enter the program are expected to complete the program as a cohort. Each cohort will come to campus for several in-class sessions; the remainder of the educational experience involves interaction with instructors and classmates via web-based application, e-mail, and telephone.

### **Plan Graduation Requirements**

The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

## School of Environmental and Public Affairs Courses

ENV 601 - Advanced Environmental Toxicology  
Credits 3

Describes how selected classes of environmental contaminants interact with cellular processes, biochemical reactions, organs and tissues. Influences on individuals, populations and ecosystems. Describes the relationship(s) between toxicants and the multiple ways they interact with the endocrine system.

**Notes** This course is crosslisted with NRES 432. Credit at the 600-level requires additional work.

ENV 611 - Environmental Risk Management  
Credits 3

General approaches to solving environmental risk problems. Students develop a "toolbox" of basic risk analysis and management methods, as well as the appropriate role of these methods in effective public and private decision making. Introduces risk analysis methods and explores policy implications of those methods.

**Notes** This course is crosslisted with ENV 411. Credit at the 600-level requires additional work.

ENV 614 - Air Pollution Science and Management  
Credits 3

ENV 660 - Environmental Modeling  
Credits 4

Introduction to dynamic modeling of environmental systems including use of modeling to support management and policy making. Develops systems thinking skills and ability to build system dynamics models. Emphasizes modeling as a framework for environmental analysis and problem solving.

**Notes** This course is crosslisted with ENV 460. Credit at the 600-level requires additional work.

ENV 680 - Geographic Information Systems for Environmental & Socioeconomic Analysis  
Credits 4

Geographic Information Systems for Environmental Management is a course designed for senior level undergraduate or graduate students to build a fundamental understanding of Geographic

Information Systems & Science (GIS & Science) for the application to environmental management and socioeconomic analysis.

**Notes** This course is crosslisted with ENV 480. Credit at the 600-level requires additional work.

ENV 685 - Seminar on Advanced Topics in Spatial Analysis  
Credits 1

Students will review and discuss current applied environmental and socioeconomic research in GIS/Spatial Analysis. Readings will be drawn from key journals in the field of environmental studies, regional science, spatial analysis, and urban planning. Students will present and discuss case studies with advanced spatial analysis.

**Notes** May be repeated to a maximum of three credits.

**Prerequisites** ENV 480 or ENV 680 or CEE 468, CEE 668 or GEOL 430 or GEOL 630 or equivalent.

ENV 701 - Environmental Science Pro Seminar  
Credits 3

Introduction to research approaches appropriate to the environmental sciences. Includes quantitative research design. Development of literature review and thesis/dissertation prospectus.

**Prerequisites** Graduate standing in Environmental Science program.

ENV 702 - Environmental Problem Solving  
Credits 3

Examines the dynamic, interdependent and interactive relationships between human activities and ecosystems. Evaluates opportunities to shift toward more sustainable human behavior.

**Prerequisites** Graduate standing in environmental science or consent of instructor.

ENV 703 - Environmental Law and Policy Seminar  
Credits 3

Substantive aspects of major federal environmental laws and their concomitant regulations, as well as the policy underlying their promulgation and implementation. The present status and implementation of the National Environmental Policy Act, the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, and the comprehensive Environmental Response, Compensation and Liability Act. Examines the

policies underlying the existing laws, their derivative regulations, and the changes being considered by Congress for these laws.

**Prerequisites** Graduate standing in environmental science or consent of instructor.

ENV 711 - Risk Assessment and Risk Management  
Credits 3

Principles of risk management as related to exposure to environmental contaminants. Prerequisite: Consent of instructor.

ENV 712 - Environmental Risk Decision Making  
Credits 3

Explores interface of technical information, experts, and environmental decision arenas. Major issues include decision making under uncertainty, risk perception, risk communication, and public participation in environmental risk modeling.

ENV 720 - Natural Resource Valuation  
Credits 3

Exploration of the valuation literature including traditional, environmental, and experimental economics; physical sciences and philosophy. Methodologic and normative issues. Application and design of valuation tools.

**Prerequisites** ENV or equivalent.

ENV 725 - Quantitative Methods for Environmental Science  
Credits 3

Quantitative research tools specifically developed for environmental science including models, data collection and statistical methods, both univariate and multivariate analyses. Emphasis on methods appropriate to student theses and dissertations.

ENV 735 - Risk-Benefit Assessment  
Credits 3

History, philosophy and methodology of risk-benefit analysis for environmental and health decision making. Explores the history of assessing costs and benefits of public projects, describes the current status of cost-effectiveness analysis in risk regulatory policy. Develops tools to estimate and compare risks, costs and benefits associated with governmental, societal and private risk decision-making.

ENV 749 - Environmental Sciences Teaching Practicum  
Credits 3

Introduction to methods and content for environmental science instructors. Tips, methods, styles, scholarship of teaching and learning.

**Prerequisites** Currently teaching undergraduate ENV course.

ENV 750 - Environmental Studies and Public Policy  
Credits 3

Introduces the principles of public policy, science, and technology that shape environmental protection strategies in this nation and abroad. ENV 750 will act as a foundation policy course in the graduate program of the Department of Environmental Studies.

**Prerequisites** Graduate standing.

ENV 751 - International Environmental Policy  
Credits 3

Examines environmental protection strategies on the international stage.

**Prerequisites** Graduate standing.

ENV 752 - Advanced Seminar in Environmental Studies and Public Policy  
Credits 3

Explores special topics in the field of environmental policy.

**Prerequisites** ENV 750 or consent of instructor.

ENV 755 - Political Economy of Technology, Environment and Development  
Credits 3

Critically examines the roles of political and economic systems as drivers of change in the areas of technology, environment and “development”. Themes include class, conservation, gender, history, natural resources, North-South conflicts, Third World, Trade, and “sustainability” theory and practice. Multicultural literature and cases, and multidisciplinary methods are utilized.

ENV 790 - Internship in Environmental Science  
Credits 1 – 3

Individual students complete appropriate internship with private, public or non-profit organization involved in environmental management. Terms to be negotiated with and approved by internship supervisor and Graduate Coordinator.

**Notes** May be repeated to a maximum of six credits.

**Grading** S/F

ENV 791 - Environmental Sciences Examination Preparation

Credits 3

Individual preparation for Masters Degree examination.

**Notes** May be repeated any number of times, but no more than three credits will count towards degree requirements.

**Prerequisites** ENV 701.

ENV 792 - Environmental Sciences Professional Paper Research

Credits 3 – 6

Individual research towards an applied professional paper under the direction of a faculty member.

**Notes** May be repeated any number of times, but no more than six credits will count towards degree requirements.

**Prerequisites** ENV 701.

ENV 793 - Independent Study in Environmental Science

Credits 1 – 6

Independent study of a selected topic in environmental science.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** Graduate standing in environmental science or consent of instructor.

ENV 794 - Special Topics in Environmental Science

Credits 1 – 3

Selected topic of current interest not covered in any existing course.

**Notes** May be repeated for a maximum of six credits.

**Prerequisites** Graduate standing in environmental science or consent of instructor.

ENV 795 - Thesis

Credits 3

**Notes** May be repeated but only six credits applied to the student's program.

**Grading** S/F grading only.

ENV 797 - Directed Readings

Credits 3

Individual research to develop doctoral dissertation

prospectus under the direction of a faculty member.

**Notes** May be repeated any number of times, but no more than six credits will count towards degree requirements.

**Prerequisites** Admitted to ENV Ph.D. program, ENV 701.

ENV 798 - Dissertation Research

Credits 3 – 6

Research analysis and writing towards completion of dissertation and subsequent defense.

**Notes** May be repeated up to eighteen credits.

**Grading** S/F grading only.

PUA 610 - Grant Writing for Public and Nonprofit Managers

Credits 1

The course intends to prepare students to understand the grant process and the steps needed to complete a well-developed funding application. Additionally, students will learn about the review process found in grant funding.

PUA 611 - Policy Advocacy and Lobbying

Credits 1

This course is designed to address advocacy and lobbying issues in the general area of public policy issues and government problems. Special attention is given to how the advocacy process works in the public and nonprofit sectors and policy making bodies and how lobbying techniques and processes can be understood.

PUA 612 - Performance Measurement for Public and Nonprofit Organizations

Credits 1

This course explores the relationship between performance measurement and citizen participation. Students will explore the movement of involving citizens in the measurement of nonprofit, state and local government performance.

PUA 613 - Leadership and Ethics for Public and Nonprofit Managers

Credits 1

This course is designed to explore issues related to being an ethical leader in the nonprofit setting. The course will examine ethical reasoning, leadership theories and case studies of leadership successes and failures.

PUA 701 - Governance and the Urban Community  
Credits 3

Examines the fundamental theories, structures, and processes of governance in Urban Communities in the United States. Explores the constitutional foundations and functions of legislative, administrative, and legal institutions. Covers topics such as federalism, public-private relations, and public administration.

**Same as SW 763**

**Prerequisites** Enrollment in the M.S.W. or M.P.A. program or consent of instructor.

PUA 703 - Seminar In Organization Theory  
Credits 3

Analyzes organizations as functioning social units. Emphasis on organization design, structure, processes, and external relationships.

**Formerly PUA 713**

PUA 705 - Public Goods and Public Finance  
Credits 3

Provides an overview of public finance. Introduces concepts (such as market failures, externalities, and public goods) and tools for analyzing the proper role of government in the economy. Addresses issues of public resource allocation and taxation.

**Formerly PUA 704**

**Same as SW 765**

**Prerequisites** Enrollment in the MSW, MPA or ULD program or consent of instructor

PUA 707 - Law and Public Policy  
Credits 3

Course provides a basic understanding of how public policy is made and implemented in a federal system. The stages of the policy process are studied. Attention given to the different actors in the policy process especially the bureaucracy.

PUA 708 - Organizations and Organizational Behavior  
Credits 3

This course provides a broad introduction to the structure and function of organizations and the behavior of people in them, focusing on public and nonprofit organizations.

**Formerly PUA 718**

**Same as SW 767**

**Prerequisites** PUA 701 or consent of instructor.

PUA 711 - Seminar in Administrative Behavior  
Credits 3

Stresses the development of knowledge and skill in understanding the role of the administrator in the context of public agencies. Emphasis given to strategies of policy making, policy implementation and understanding the factors that bear upon the administrator acting in these capacities.

PUA 715 - Administrative Law  
Credits 3

Branch of law that deals with public administration. Examines authority upon which administrative agencies operate and limits necessary to control agency action. Attention given to procedures governing rule making, administrative adjudication, and judicial review.

**Prerequisites** PUA 701 or consent of instructor.

PUA 718 - Career Development and Performance Appraisal in the Public Sector  
Credits 3

Investigates how and why government agencies should develop career-stage appropriate employee development programs. Students gain greater appreciation of public sector employee evaluation systems.

**Formerly PUA 728**

**Prerequisites** PUA 708 or consent of instructor.

PUA 719 - Personnel Assessment and Selection  
Credits 3

Covers legal and technical aspects of personnel selection. Concentrates on assessment center process for diagnosing management skills and selection in the public sector.

**Prerequisites** PUA 701 or consent of instructor.

PUA 721 - Quantitative Methods for Public Administration  
Credits 3

Quantitative techniques used in program design and evaluation. Coverage includes such topics as measurement, tests of significance, and measures of association. Includes descriptive and inferential statistics and forecasting methods.

**Formerly PUA 722**

**Prerequisites** PUA 701 or consent of instructor.



PUA 723 - Research and Analytical Methods  
Credits 3

Examines quantitative and qualitative research methods used to answer questions and test hypotheses in public and non-profit settings. Includes identifying and reviewing scholarly literature; formulating research questions; selecting appropriate design, data collection and data analysis. Topics include causal and descriptive designs, interview and survey methods, and descriptive and inferential statistics.

**Prerequisites** PUA 701 or consent of instructor.

PUA 725 - Policy Analysis and Program Evaluation  
Credits 3

Introduces students to the practical aspects of program evaluation, and the methodologies employed to analyze a program and to conduct an evaluation in the public and nonprofit sectors.

**Prerequisites** PUA 721 and PUA 723 or consent of instructor.

PUA 727 - Theory and Practice of Public Sector  
Survey Research  
Credits 3

Provides the theoretical and applied components of survey research. Students learn the basics of all elements of the survey process.

**Same as** PAF 717

**Notes** Students will participate in an actual survey.

**Prerequisites** Admission to a graduate program.

PUA 740 - Urban Administration  
Credits 3

Urban management approached from the viewpoint of the chief administrator. Some consideration given to the city as an organic economic, political and social institution. Emphasis on administrative exercise of leadership decision making and various functional activities.

**Prerequisites** PUA 701 or consent of instructor.

PUA 741 - Leading and Assessing Change in  
Organizations  
Credits 3

Understanding change, how to facilitate the process and measuring success are important knowledge and skills for leaders, followers, policy makers, program evaluators and researchers. This course introduces well-established change constructs, theories, models

and measures, their applications in various settings. This course also explores research methods to study change processes.

PUA 745 - Administration in a Federal and  
Intergovernmental Perspective  
Credits 3

Provides students with understanding of the issues and problems of administering public programs in a federal system. Emphasis placed on how all levels of governments work together. Studies role of grants, mandates, and state/federal statutes on administrators.

**Formerly** PUA 706

**Same as** ECEM 714

PUA 749 - Ethics in Public Administration  
Credits 3

Ethics in Public Administration

**Grading** Letter Grade

PUA 750 - Education Policy  
Credits 3

Examines governmental policy and structure affecting elementary and secondary school finance, administration, and management. Reviews the history and impact of various structural and policy reforms proposed from 1950 to the present. Analyzes structure, policy, and reforms in terms of equity, effectiveness in facilitating student achievement, and other criteria.

**Same as** (PAF 750)

PUA 751 - Origins and Development of Public  
Policy in America  
Credits 3

Examines the development of public policy in America especially as it is driven by citizen's needs. In addition, it examines the impact of public policy on society

**Same as** PAF 701

**Prerequisites** Graduate standing.

PUA 756 - Policy Implementation  
Credits 3

Provides students an introduction to current models of implementation and the means for assessing both theory and methods; provides a bridge between the literature on policy analysis and program evaluation; offers students the opportunity to apply theoretical frameworks to practical situations.

PUA 760 - Political Economy

Credits 3

Survey of the field of political economy since 1945 with emphasis on alternative theories of the role of government, value, and distribution. Focus on the ideological structure of neomarxism, neoinstitutionalism, social economics and postkeynesianism as well as the neoclassical synthesis, monetarism and public choice.

**Formerly** (PUA 732)

**Prerequisites** Graduate standing in the M.P.A. or Economics programs or consent of instructor.

PUA 761 - Introduction to Workforce Education

Credits 3

Overview of history, philosophy and areas within the workforce education field.

**Formerly** EDW 730

PUA 762 - Needs Assessment and Evaluation

Credits 3

Discusses approaches to identifying performance problems in organizations and determining appropriate interventions. Emphasis/focus on assessment, evaluation, and measurement of workplace learning and performance activities.

**Formerly** EDW 734

PUA 763 - Facilitation Skills for Workplace Learning and Performance

Credits 1-3

Introductory course providing overview of roles and functions of the training professional. Ample opportunities to practice facilitation skills. Topics include evolution of training, current paradigms in training and development, media development, and delivery techniques. May be repeated to a maximum of 3 credits.

**Formerly** EDW 737

PUA 764 - Technologies for the Workplace

Credits 1-3

Applications of -and implications for the use emerging technology in the workplace. May be repeated for a maximum of 3 credits.

PUA 770 - Nonprofit Management and Theories of the 3rd Sector

Credits 3

Examines the legal and other definitions of the 3rd

sector, the sector's distinctive values, its contributions to civil society, its role vis-à-vis the government and business sectors, and current conditions in and challenges for the sector. In addition, the course will serve as an introduction the principal skills, knowledge, and abilities that are involved in the management of nonprofit organizations.

PUA 774 - Community Outreach and Volunteerism

Credits 3

Provides a general overview of Volunteer Management as it relates to the field of public administration. Introductory course emphasizes nonprofit as part of the MPA program and introduces students to the basic concepts and issues surrounding the development and management of community based volunteer programs.

PUA 775 - Strategic Planning and Program Evaluation for Nonprofits

Credits 3

Provides the capability to understand, plan, implement and evaluate strategies and programs so as to take advantage of opportunities and effectively manage challenges facing their organization. Teaches students to analyze how strategic planning and evaluation strategies differ from those used in the private sector. Emphasis is on management strategies that distinguish nonprofits from for-profits and public agencies and the challenges facing each.

PUA 776 - Development for Nonprofit Managers

Credits 3

Introduction to fundraising for nonprofit organizations, including annual giving, major gifts, planned giving, and campaigns.

PUA 790 - Internship Program in Public Administration

Credits 1 – 6

Graduate students have a work assignment in a public agency at the national, state, or local governmental level and make regular reports on work activities and assigned readings.

**Formerly** PUA 709

**Prerequisites** PUA 701 or consent of department

PUA 792 - Current Issues in Public Administration

Credits 1 – 6

Examination of timely issues in the field with special attention to the needs of the practitioner.

**Notes** May be repeated to a maximum of nine credits.

PUA 798 - Research in Public Administration

Credits 1 – 6

Individual research projects under the direction of a faculty member.

**Notes** May be repeated to a maximum of six credits.

**Prerequisites** PUA 701 and PUA 723 and/or consent of instructor.

PAF 701 - Origins and Development of Public Policy in America

Credits 3

Examines the development of public policy in America especially as it is driven by citizen's needs. In addition, it examines the impact of public policy on society.

**Same as** PUA 751

**Prerequisites** Graduate standing.

PAF 702 - Role of Government in Society

Credits 3

Evaluates the challenges of public policymaking and the moral responsibilities of public actors in a democracy. Looks at the underlying theories used to debate what government should do in society.

**Prerequisites** Admission into a Ph.D. program or permission of instructor.

PAF 703 - Individual and Group Decision Making

Credits 3

Explores how different academic disciplines view individual and group decision-making under uncertainty. Analysis of how individuals and groups make decisions, and different notions about how they should act when faced with risk and uncertainty.

**Prerequisites** Admission into program.

PAF 704 - Public Affairs as a Profession

Credits 1

This course is part of the doctoral program in public affairs and is designed for students to understand potential career opportunities with a Ph.D. in Public Affairs. Understanding the norms and expectations in the profession are addressed, and attention is given to expectations, strategies, and preparation for the job market to better understand what students can do

with their Ph.D. degrees in public affairs.

**Prerequisites** Admitted to a PhD program.

PAF 710 - Theory and Design of Research

Credits 3

Designed to develop in students the role of theory in designing research applicable to issues studied in public affairs. Beginning course in the Public Affairs Ph. D. program's analytical studies sequence.

**Prerequisites** Admission into program.

PAF 711 - Advanced Seminar in Quantitative Research in Public Affairs

Credits 3

Students in this course will become familiar with the conceptual foundations and appropriate applications of major social scientific approaches to data-gathering and analysis, with emphasis on quantitative multivariate analysis.

**Prerequisites** PAF 710 or permission of instructor.

PAF 717 - Theory and Practice of Public Sector Survey Research

Credits 3

Provides theoretical and applied components of survey research. Students learn the basics of all elements of the survey process. Students will participate in an actual survey.

**Same as** (PUA 727)

**Prerequisites** Admission to a graduate program.

PAF 750 - Education Policy

Credits 3

Examines governmental policy and structure affecting elementary and secondary school finance, administration, and management. Reviews the history and impact of various structural and policy reforms proposed from 1950 to the present. Analyzes structure, policy, and reforms in terms of equity, effectiveness in facilitating student achievement, and other criteria.

**Same as** (PUA 750)

PAF 752 - Social Policy, the Individual, and Society

Credits 3

Examines moral and other dimensions of social policy; frameworks for the analysis and development of social policy; the social construction of social problems; the role of social science in informing

social policy; and social policies as manifestations of a society's values.

PAF 795 - Directed Readings in Public Affairs  
Credits 3

Student, under the supervision of a graduate faculty member, conducts additional readings on a topic previously explored in doctoral coursework.

**Notes** Student may repeat the course for a total of six credits.

**Prerequisites** Completion of core course work and approval of the Graduate Director.

PAF 797 - Independent Research in Public Affairs  
Credits 3-6

Student, under the supervision of a graduate faculty member, conducts research on a topic within the public affairs program areas. Completion of the research should produce a publishable manuscript.

**Prerequisites** Completion of core course work and approval of the Graduate Director.

PAF 799 - Dissertation Research in Public Affairs  
Credits 6

Research, analysis, and writing on a topic that makes an original contribution of knowledge to the field of public affairs. Upon completion, students defend the dissertation. Students are expected to enroll in six credits a semester until the dissertation is completed; however, only twelve credits may be counted toward the degree.

**Grading** S/F grading only

**Prerequisites** Completion of all course work and approval of Committee Chair.

PUA 729 - MPA Capstone Experience  
Credits 3

The purpose of this class is to provide the knowledge and skills needed to construct and critique evaluation designs, collect and analyze data to test the effects of government programs, and address many of the questions and issues that arise in the process of evaluating program impacts.

**Prerequisites** PUA 725 or Consent of the Graduate Coordinator.

ULD 700 - Special Topics in Urban Leadership  
Credits 1 - 3

This course addresses topics related to current issues

in urban leadership. May be repeated with new content. Maximum credit 6 units.

ULD 701 - Leading Ethical Organizations  
Credits 3

This course introduces theoretical frameworks related to understanding the dynamics of self, the organization and the norms and values associated with ethical leadership of state and governmental agencies. Students will develop an understanding of how leaders in disparate organizations can affect climate and culture to facilitate inter-organizational cooperation and collaboration.

**Formerly** EDA 701.

**Corequisite** ULD 705

ULD 705 - Leadership Field Experience I  
Credits 1 – 3

Allows graduate students to participate in and observe the culture, climate, and organizational structure of a variety of community agencies, including schools. Open only to, and required of, students pursuing a M.A. in Urban Leadership.

**Formerly** EDA 705.

**Corequisite** ULD 701

ULD 715 - Leading Learning Organizations  
Credits 3

The course examines and critiques research related to creating and fostering productive communities of practice that engage in continuous improvement actions related to the core technology of an organization. Content includes knowledge and application of theories related to adult learning, motivation, and team building.

ULD 720 - Introduction to Urban Leadership  
Credits 3

An introduction to general theories of leadership and organizational systems. In addition this course serves as an orientation to the Urban Leadership Program and area of specialization.

ULD 722 - Research & Analytical Methods  
Credits 3

Introduction to research for organizational leaders, including an overview of quantitative and qualitative research methods. Applications of research regarding program evaluation and action research will be

addressed, focusing on the role research plays to inform leaders about best practices. The course will address leader's responsibilities as critical consumers of research.

**Same as** PUA 723

ULD 730 - Leading in Diverse Communities  
Credits 3

The growth and development of a dynamic community is enhanced when leaders of schools and affiliated community agencies demonstrate cultural competence. This course focuses on the knowledge and skills leaders need work in cross-cultural situations, to build effective collaborative relationships, and to mobilize community resources.

**Formerly** EDA 730.

ULD 731 - Leading a Learning Organization for the Next Generation  
Credits 3

This course focuses on the role of educational leaders in creating and sustaining systems and processes to align curriculum, instruction, and assessment with 21st century skills for college and career readiness, including the use of appropriate digital technologies to support learning and organizational goals.

ULD 732 - Leading a Learning Organization Through Community Building  
Credits 2

This course focuses on how to work effectively with diverse families and community members in: assessing and responding to diverse community interests and needs; sharing leadership with stakeholders; motivating and mobilizing community resources; examining relationships between schools and communities from demographic and political perspectives.

ULD 735 - Leading a Learning Organization Through Evidence-Based Decision Making  
Credits 3

This course applies evidence-based decision-making methods aimed at creating a culture of continuous school improvement, including the collection, analysis, and interpretation of multiple measures; the inter-relationships between evidence-based interventions and educational outcomes; commonly

used analytic strategies and processes; a step-by-step approach to evidence-based decisions.

ULD 737 - Leading for Teaching and Learning  
Credits 3

This course focuses on the practice of teacher supervision with emphases on instructional leadership and professional development. The course addresses coaching, adult learning, and distributive leadership to support the culture of learning and equity in the organization.

ULD 740 - Instructional Seminar: Designing & Monitoring the Instructional Program  
Credits 1

This seminar focuses on instructional strategies to meet the needs of all learners, with an emphasis on developing systems to guide instructional supervision through the use of research-based instructional frameworks.

ULD 742 - Leadership Field Experience II  
Credits 3

Supervised field experience in schools or other community agencies. May be repeated for a maximum of 9 credits.

**Formerly** EDA 742.

**Notes** May be repeated to a maximum of nine credits.

**Prerequisites** Consent of program.

ULD 744 - Leading and Assessing Change in Organizations  
Credits 3

Change is a constant demand and required activity in all organizations. This course examines research, theory and strategies for leading change processes that make the difference in having success or failure.

ULD 751 - Education Law and Public Policy Seminar: Student Rights and Responsibilities  
Credits 1

Expands student knowledge and application of applicable federal, state, and local requirements and public policy for student rights and responsibilities through a carefully designed series of case studies intended to develop the student's capacity to create a safe and productive school culture.

ULD 753 - Education Law and Public Policy  
Seminar: Resource Management for Student Learning  
Credits 2

Expands knowledge and develops skill in the management of fiscal and human resources of a school to achieve greater student performance. Case studies and simulations will be employed to develop resource management knowledge and skills. This course contributes to the capstone experience required for completion of the degree program.

ULD 755 - Education Law and Public Policy  
Seminar: Exceptional and At-Risk Students  
Credits 1

This seminar addresses applicable federal, state, and local requirements and public policy for providing services to exceptional and at-risk student populations through study of contemporary case law, case study analysis, and evidence-based program design and supervision.

ULD 757 - Education Law and Public Policy  
Seminar: Teacher Evaluation  
Credits 1

Expands knowledge and application of applicable federal, state, and local requirements and public policy for high stakes assessment of teachers. Contract management, employee discipline and recognition, and procedural expectations for insuring fairness and equity will be addressed.

ULD 780 - Capstone Seminar: Educational Leadership  
Credits 2

The capstone seminar provides students with the opportunity to synthesize core and major coursework completed during the program of graduate study, culminating in a portfolio or poster presentation demonstrating competencies in educational leadership as evidenced by field-based experiences.

ULD 789 - Leadership Field Experience III  
Credits 1 – 3

This capstone course requires students to connect knowledge bases with practical applications of leadership. Projects are individually structured under the joint guidance of university faculty and an organizational executive. Projects may address an organizational problem, an activity that furthers the

organizational mission or the development of proactive community partnerships.  
**Formerly** EDA 789.

WDL 767 - Review and Analysis of Policies in Workforce Development  
Credits 3

Focuses on federal, state and local policies related to workforce development and its ties to local workforce initiatives and grants.  
**Formerly** EDW 767.

WDL 780 - Leadership in Workforce Education and Development  
Credits 3

Provides students with the knowledge, skills, and dispositions necessary to undertake leadership positions in diverse educational settings and organizations. Emphasis on modern leadership practices and techniques through the study of accepted theory and applied principles.  
**Formerly** EDW 780.

WDL 785 - Global and Diversity Perspectives in Workforce Development  
Credits 3

This course examines workforce development systems and their effectiveness in developing human capital from a global perspective. Human resource management trends and the challenges a global workforce poses for human resource practices are also discussed.  
**Formerly** EDW 785.

**Prerequisites** Consent of instructor.

WDL 786 - Critique of Research in Workforce Development and Organizational Leadership  
Credits 3

Survey and critique of research in workforce development.  
**Formerly** EDW 786.

WDL 787 - Organization Development & Change: Theories to Practice  
Credits 3

Overview of theories and research on organizations and managing change within them.  
**Formerly** EDW 787.  
**Prerequisites** EDW 732

WDL 788 - Strategic Planning and Management  
Credits 3

Leading organizations require the ability to plan and implement a strategic plan and manage performance within an organization. Topics will revolve around strategy and performance management as it relates to workforce initiatives.

**Formerly** EDW 788.

WDL 789 - Professional Development and Research  
Credits 3-6

This graduate(doctoral) level course in workforce education leadership provides participants with an opportunity to explore the functions and roles of as a leader of workforce education and development field and to apply conceptual learning relative to workforce education leadership in a workforce setting.

**Formerly** EDW 789.

**Notes** May be repeated to a maximum of six credits.

WDL 796 - Workforce Development &  
Organizational Leadership Prospectus  
Credits 3

Designed to guide students to begin their dissertation process by preparing a dissertation proposal. The prospectus should provide a detailed description of a research plan.

**Formerly** EDW 796.

**Prerequisites** Completion of all core courses, and completion of qualifying/comprehensive exam.

WDL 799 - Doctoral Dissertation  
Credits 1 - 12

Research analysis and writing toward completion of dissertation and subsequent defense.

**Formerly** EDW 799.

**Notes** Twelve credits are required for the degree, may be repeated, but only twelve credits will be applied to the students degree program.

**Grading** S/F grading only.

**Prerequisites** Successful completion of WDL 796 and approval by the department.

## School of Social Work

The philosophy of the School of Social Work stresses the importance of both sound academic education and rich practical experience in preparing "advanced social work practitioners." Faculty members bring to their positions a range of knowledge and applied experiences, and they are active in scholarly research, consultation, and practice in their respective fields.

*Joanne Thompson, Ph.D., Director*

*MaryAnn Overcamp-Martini, Ph.D., Graduate  
Coordinator*

## School of Social Work Faculty

### Director

**Thompson, Joanne** - *Full Graduate Faculty*  
Professor; B.A., LaGrange College, M.S.W.,  
University of Arkansas, Ph.D., Rutgers  
University. *Rebel since 2003.*

### Graduate Program Coordinator

**Overcamp-Martini, Maryann** - *Full Graduate Faculty*

Associate Professor in Residence; B.A., College of  
Mount St. Joseph-on-the-Ohio; M.P.A., University of  
Wyoming; M.S.W., Ph.D., University of Utah. *Rebel  
since 2002*

### Graduate Faculty

**Albert, Vicky** - *Full Graduate Faculty*

Professor; B.S.W., M.S.W., University of Illinois;  
Ph.D., University of California, Berkeley. *Rebel since  
1998.*

**Bergquist, Kathleen Leilani Ja Sook** - *Full Graduate Faculty*

Associate Professor; B.A., Christopher Newport  
University, M.S.W., Norfolk State University, Ph.D.,  
College of William and Mary; J.D., Boyd School of  
Law, University of Nevada, Las Vegas. *Rebel since  
2004.*

**Denby Brinson, Ramona** - *Full Graduate Faculty*

Professor; B.S.W., Arizona State University; M.S.W.,  
University of Nevada, Las Vegas; Ph.D., Ohio State  
University. *Rebel since 1998.*

**Epstein, William M.** - *Full Graduate Faculty*

Professor; B.A., Brooklyn College; M.S.W.,  
University of Pittsburgh; D.S.W., Columbia  
University. *Rebel since 1992.*

**Kirkendall, Abbie** - *Full Graduate Faculty*

Assistant Professor; B.A., Buffalo State College;  
M.S.W., University at Buffalo; Ph.D., University at  
Buffalo. *Rebel since 2010.*

**Owens, Sandra** - *Full Graduate Faculty*

Associate Professor; B.A., M.S.W., University of

Nevada, Las Vegas; Ph.D., University of California,  
Berkeley. *Rebel since 1998.*

**Sharma, Satish** - *Full Graduate Faculty*

Professor; B.A., M.A., Panjab University; M.S.W.,  
University of Iowa; Ph.D., Ohio State  
University. *Rebel since 1982.*

**Sun, An-Pyng** - *Full Graduate Faculty*

Professor; B.A., National Chung-Shing University;  
M.S.W., University of Illinois, Champaign-Urbana;  
Ph.D., Case Western Reserve University. *Rebel since  
1997.*

### Professor Emeriti

**Langston, Esther**

Professor; B.A., Wiley College; M.S.W., San Diego  
State University; Ph.D., University of Texas.  
*UNLV Emeritus 1970.*

**Oakes, Margaret**

Emeritus Associate Professor; B.A., University of  
Arizona; M.S.W., California State University,  
Fresno; Ph.D., University of Texas at Austin. *UNLV  
Emeritus 1997-2010.*

**Pelton, Leroy** - *Full Graduate Faculty*

Professor; B.S., Brooklyn College; M.A., New  
School for Social Research; M.S.W., Rutgers  
University; Ph.D., Wayne State University. *Rebel  
since 1997.*

**Rubin, Gerald K.**

Emeritus Associate Professor; B.A., University of  
Minnesota; M.S.W., Ph.D., University of  
Denver. *UNLV Emeritus 1976-1998.*



## Master of Social Work

### Plan Description

The Master of Social Work (M.S.W.) program at UNLV prepares students for professional social work careers in the areas of direct practice with individuals, families and groups, and in management and community practice. The mission of the M.S.W. program is to educate students to work with populations in urban settings, utilizing generalist, problem solving, empowerment, and social justice approaches. Special attention is given to the mastery of multiple practice issues, attendant upon the present plural and diverse populations in today's American society.

Students may elect either "direct practice" or "management and community practice" as their area of concentration. The direct practice concentration prepares students for advanced social work practice with individuals, families, and groups. The management and community practice concentration prepares students for advanced administrative, managerial, and community practice in human service organizations and agencies at the local, state and national levels.

Students are provided academic knowledge related to the theory, research, and major substantive issues in the field and practice experience through practicum experiences in a variety of private and public agency environments. Field practicum placement is concurrent with classroom instruction and is an integral part of the program. A wide variety of field practicum agencies are available, and students are placed in the field under the guidance of the Field Director and in cooperation with the professional supervisory staff from local social service agencies. The program seeks to encourage and accommodate varied student interests, abilities, and career goals. Partnerships and on-going collaborative relationships between the school faculty and the service agencies facilitate a rich blend of academic and community-based experience for our students.

The M.S.W. program is designed to be consistent with the accreditation standards of the field's national professional accrediting body, the Council on Social

Work Education (CSWE). The program is fully accredited by the Council on Social Work Education. The School of Social Work does not discriminate on the basis of race, color, gender, age, creed, ethnic background, national origin, disability, and political, religious, or sexual orientation.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

An applicant must have the following:

1. A minimum overall grade point average of 2.75 on a 4.00 scale for the bachelor's degree. An earned bachelor's degree in social work from an accredited program or a degree in another field.
2. Completion of the following liberal arts courses: English composition or literature courses; college-level mathematics or statistics course; courses in social sciences, preferably in psychology, sociology, and anthropology; a science course; one course in fine arts or humanities; a course in history or political science; a course or content in the biological determinants of human behavior or human biology; a course or content in diverse cultures, social conditions, or social problems. The applicant must not have more than two course deficiencies to be admitted to the program, and those must be cleared by the end of the first semester of M.S.W. studies.
3. An applicant must submit an application for admission, transcripts of all college-level work, and the application fee to the Graduate College. Three letters of recommendation (as specified below), a personal statement, and transcripts of all college-level work must be submitted to the School of Social Work.

4. The applicant must submit to the School of Social Work three letters of recommendation (on the prescribed form) that reflect the applicant's academic experience, general abilities, and interest and motivation in pursuing a graduate degree in social work. One of these letters should be from the most recent employer in a social work position (if applicable), and one should be from an instructor (social work instructor, if applicable) from the last college attended. The third letter should be from a person who is familiar with the applicant's overall qualifications, experience, and interest in pursuing the M.S.W. degree.
5. Students with a BSW degree from a program accredited by the Council of Social Work Education may be admitted through Advanced Standing at the determination of the MSW Program. Applicants must have an undergraduate GPA of 3.25 overall, with preference for post-BSW practice experience of 5 years. Applicants will be required to complete the Advanced Standing Summer Term of 4 required courses completed to a 3.0 GPA or above. Students who do not have a 3.0 at the end of the Summer Term will not be allowed to continue into the concentration year of the MSW Program but will be allowed to enter the foundation year of the 63-credit MSW Program.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

Admission to the MSW Program cannot be deferred. The student must also enroll in the program to which admission is offered (i.e., a particular concentration, full or part-time). Students must make any request for a change in status in writing and in accordance with School procedure. Also considering the rigor of the program, students must evaluate if their individual circumstances and resources warrant applying for the full-time or part-time program. Students working 20 hours a week or more are strongly advised to apply to the part-time program.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

Plan Requirements

### **Subplan 1 Requirements: Capstone Track**

Total Credits Required: 63

Course Requirements

#### **Required Courses – Credits: 27**

SW 701 - Social Welfare Policy I  
 SW 703 - Social Welfare Policy II  
 SW 715 - Human Behavior and the Social Environment I  
 SW 716 - Social Work Research I  
 SW 719 - Foundation Practicum I  
 SW 720 - Foundation Practice Methods I  
 SW 726 - Social Work Research II  
 SW 729 - Foundation Practicum II  
 SW 730 - Macro Theory and Practice

#### **Concentration Courses – Credits: 24**

Complete 24 credits of coursework from one of the following concentration areas:

##### *Direct Practice*

SW 707 - Contemporary Issues in Diversity  
 SW 739 - Field Practicum I (DP)  
 SW 740 - Direct Practice I  
 SW 747 - DSM: Assessment and Diagnosis  
 SW 749 - Field Practicum II (DP)  
 SW 750 - Direct Practice II  
 SW 776 - Legal and Ethical Issues in Social Work  
 SW 785 - Special Topics in Advanced Policy

##### *Management and Community Practice*

SW 707 - Contemporary Issues in Diversity  
 SW 759 - Field Practicum I (MCP)  
 SW 760 - Management and Community Practice I  
 SW 765 - Financial Management and Resource Development  
 SW 769 - Field Practicum II (MCP)

SW 770 - Management and Community Practice II  
SW 775 - Advanced Policy Practice  
SW 776 - Legal and Ethical Issues in Social Work

**Elective Courses – Credits: 9**

Complete a minimum of 9 credits of Social Work electives, or other advisor-approved graduate-level courses.

**Capstone Course – Credits: 3**

SW 795 - Capstone Seminar

**Degree Requirements**

Complete course work with a minimum overall grade point average of 3.00 on a 4.00 scale.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Successfully complete the capstone course.

**Subplan 2 Requirements: Thesis Track**

Total Credits Required: 63

**Course Requirements**

**Required Courses – Credits: 27**

SW 701 - Social Welfare Policy I  
SW 703 - Social Welfare Policy II  
SW 715 - Human Behavior and the Social Environment I  
SW 716 - Social Work Research I  
SW 719 - Foundation Practicum I  
SW 720 - Foundation Practice Methods I  
SW 726 - Social Work Research II  
SW 729 - Foundation Practicum II  
SW 730 - Macro Theory and Practice

**Concentration Courses – Credits: 24**

Complete 24 credits of coursework from one of the following concentration areas:

*Direct Practice*

SW 707 - Contemporary Issues in Diversity  
SW 739 - Field Practicum I (DP)  
SW 740 - Direct Practice I  
SW 747 - DSM: Assessment and Diagnosis  
SW 749 - Field Practicum II (DP)  
SW 750 - Direct Practice II  
SW 776 - Legal and Ethical Issues in Social Work  
SW 785 - Special Topics in Advanced Policy

*Management and Community Practice*

SW 707 - Contemporary Issues in Diversity  
SW 759 - Field Practicum I (MCP)  
SW 760 - Management and Community Practice I  
SW 765 - Financial Management and Resource Development  
SW 769 - Field Practicum II (MCP)  
SW 770 - Management and Community Practice II  
SW 775 - Advanced Policy Practice  
SW 776 - Legal and Ethical Issues in Social Work

**Elective Courses – Credits: 6**

Complete a minimum of 6 credits of Social Work electives, or other advisor-approved graduate-level courses.

**Thesis – Credits: 6**

SW 796 - Thesis

**Degree Requirements**

1. Complete course work with a minimum overall grade point average of 3.00 on a 4.00 scale.
2. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

**Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for

graduation up to two semesters prior to completing his/her degree requirements.

2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Subplan 3 Requirements: Advanced Standing Capstone Track**

Total Credits Required: 42

Course Requirements

#### **Bridge Courses – Credits: 12**

SW 707 - Contemporary Issues in Diversity

SW 734 - Advanced Standing Practice Seminar

SW 736 - Advanced Standing Integrative Seminar

SW 776 - Legal and Ethical Issues in Social Work

#### **Concentration Courses – Credits: 18**

Complete 18 credits of coursework from one of the following concentration areas:

##### *Direct Practice*

SW 739 - Field Practicum I (DP)

SW 740 - Direct Practice I

SW 747 - DSM: Assessment and Diagnosis

SW 749 - Field Practicum II (DP)

SW 750 - Direct Practice II

SW 785 - Special Topics in Advanced Policy

##### *Management and Community Practice*

SW 759 - Field Practicum I (MCP)

SW 760 - Management and Community Practice I

SW 765 - Financial Management and Resource Development

SW 769 - Field Practicum II (MCP)

SW 770 - Management and Community Practice II

SW 775 - Advanced Policy Practice

#### **Elective Courses – Credits: 9**

Complete a minimum of 9 credits of Social Work electives, or other advisor-approved graduate-level courses.

#### **Capstone Course – Credits: 3**

SW 795 - Capstone Seminar

Degree Requirements

Complete course work with a minimum overall grade point average of 3.00 on a 4.00 scale.

Graduation Requirements

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. Successfully complete the capstone course.

### **Subplan 4 Requirements: Advanced Standing Thesis Track**

Total Credits Required: 42

Course Requirements

#### **Bridge Courses – Credits: 12**

SW 707 - Contemporary Issues in Diversity

SW 734 - Advanced Standing Practice Seminar

SW 736 - Advanced Standing Integrative Seminar

SW 776 - Legal and Ethical Issues in Social Work

#### **Concentration Courses – Credits: 18**

Complete 18 credits of coursework from one of the following concentration areas:

##### *Direct Practice*

SW 739 - Field Practicum I (DP)

SW 740 - Direct Practice I

SW 747 - DSM: Assessment and Diagnosis

SW 749 - Field Practicum II (DP)

SW 750 - Direct Practice II

SW 785 - Special Topics in Advanced Policy

##### *Management and Community Practice*

SW 759 - Field Practicum I (MCP)  
SW 760 - Management and Community Practice I  
SW 765 - Financial Management and Resource  
Development  
SW 769 - Field Practicum II (MCP)  
SW 770 - Management and Community Practice II  
SW 775 - Advanced Policy Practice

*Refer to your subplan for Graduation Requirements.*

### **Elective Courses – Credits: 6**

Complete a minimum of 6 credits of Social Work electives, or other advisor-approved graduate-level courses.

### **Thesis – Credits: 6**

SW 796 - Thesis

### **Degree Requirements**

1. Complete course work with a minimum overall grade point average of 3.00 on a 4.00 scale.
2. In consultation with his/her advisor, a student will organize a thesis committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

### **Graduation Requirements**

1. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
2. The student must submit and successfully defend his/her thesis by the posted deadline. The defense must be advertised and is open to the public.
3. The student must submit his/her approved, properly formatted hard-copy document to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Plan Graduation Requirements**

## Dual Degree: Master of Social Work & Juris Doctor

### Plan Description

The Juris Doctor/Master of Social Work (JD/MSW) dual degree program allows students to be admitted to both programs and to pursue the two degrees concurrently.

Pursued individually, the JD requires the completion of 89 credit hours and the MSW requires the completion of 63 credit hours. The dual MSW/JD degree would require the completion of 80 law credit hours and 54 social work credit hours, as 9 hours of law courses are accepted toward the MSW and 9 hours of social work courses are accepted toward the JD.

**For more information about your program, including your graduate program handbook and learning outcomes, please visit the Degree Directory.**

### Plan Admission Requirements

Applications available on the UNLV Graduate College website.

Applicants to the JD/MSW degree program must apply for, and gain admission to, both the Boyd School of Law JD program and to the School of Social Work MSW program, respectively. Admission requirements are the same as those listed under the regular JD and MSW programs.

While applications from current students in either program will be considered, students normally should seek and satisfy admission to enter both programs upon entering the university. However, petitions requesting admission to the dual JD/MSW program from students at more advanced stages in either program will be considered. Those interested are encouraged to submit a request for permission to participate in the program, along with applications for admission, at the earliest possible time. Contact the William S. Boyd School of Law at (702) 895-2440 and the UNLV School of Social Work

programs at (702) 895-3311 for further information on admissions requirements.

All domestic and international applicants must review and follow the Graduate College Admission and Registration Requirements.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

### Plan Requirements

*See Subplan Requirements below.*

#### Subplan 1 Requirements: Direct Practice Concentration

Total Credits Required: 134

Course Requirements

*Total Credits Required for the Social Work M.S.W.: 54*

#### Required Courses – Credits: 27

SW 701 - Social Welfare Policy I  
SW 703 - Social Welfare Policy II  
SW 715 - Human Behavior and the Social Environment I  
SW 716 - Social Work Research I  
SW 719 - Foundation Practicum I  
SW 720 - Foundation Practice Methods I  
SW 726 - Social Work Research II  
SW 729 - Foundation Practicum II  
SW 730 - Macro Theory and Practice

#### Direct Practice Courses – Credits: 24

SW 707 - Contemporary Issues in Diversity  
SW 739 - Field Practicum I (DP)  
SW 740 - Direct Practice I  
SW 747 - DSM: Assessment and Diagnosis  
SW 749 - Field Practicum II (DP)  
SW 750 - Direct Practice II  
SW 776 - Legal and Ethical Issues in Social Work  
SW 785 - Special Topics in Advanced Policy

**Capstone Course – Credits: 3**

SW 795 - Capstone Seminar

*Total Credits Required for the Juris Doctor: 80*

**Required Courses – Credits: 44**

**Free Electives at Law School – Credits: 24**

**Directed Electives at Law School – Credits: 12**

Degree Requirements

Complete course work with a minimum overall grade point average of 3.00 on a 4.00 scale.

Graduation Requirements

*See Plan Graduation Requirements below.*

**Subplan 2 Requirements: Management and Community Practice Concentration**

Total Credits Required: 134

Course Requirements

*Total Credits Required for the Social Work M.S.W.: 54*

**Required Courses – Credits: 27**

SW 701 - Social Welfare Policy I  
SW 703 - Social Welfare Policy II  
SW 715 - Human Behavior and the Social Environment I  
SW 716 - Social Work Research I  
SW 719 - Foundation Practicum I  
SW 720 - Foundation Practice Methods I  
SW 726 - Social Work Research II  
SW 729 - Foundation Practicum II  
SW 730 - Macro Theory and Practice

**Management and Community Practice Courses – Credits: 24**

SW 707 - Contemporary Issues in Diversity  
SW 759 - Field Practicum I (MCP)  
SW 760 - Management and Community Practice I  
SW 765 - Financial Management and Resource Development

SW 769 - Field Practicum II (MCP)  
SW 770 - Management and Community Practice II  
SW 775 - Advanced Policy Practice  
SW 776 - Legal and Ethical Issues in Social Work

**Capstone Course – Credits: 3**

SW 795 - Capstone Seminar

*Total Credits Required for the Juris Doctor: 80*

**Required Courses – Credits: 44**

**Free Electives at Law School – Credits: 24**

**Directed Electives at Law School – Credits: 12**

Degree Requirements

Complete course work with a minimum overall grade point average of 3.00 on a 4.00 scale.

Graduation Requirements

*See Plan Graduation Requirements below.*

**Plan Graduation Requirements**

1. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to graduate from both programs for the same semester.
2. The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.
3. Successfully complete the capstone seminar.

## School of Social Work Courses

SW 602 - The Effects of War on Individuals and Communities  
Credits 3

The course examines the effects that overwhelming and horrifying events in war have on the individual and their social environment. A variety of countries at war will be examined through film, literature, journal articles, and the internet to help understand the settings and real life outcomes of war.

**Notes** This course is crosslisted with SW 402. Credit at the 600-level requires additional work.

SW 605 - Group Practice  
Credits 3

Studies the use of groups in social work practice. Includes historical development, group dynamics and theory, group process, the value base of social group work.

**Notes** This course is crosslisted with SW 405. Credit at the 600-level requires additional work.

SW 622 - AIDS: An Interdisciplinary Perspective  
Credits 3

Interdisciplinary survey of various issues surrounding AIDS (Acquired Immune Deficiency) as viewed from several conceptual, professional, and experiential disciplines. Offers the most current cognitive information about AIDS and provides an affective awareness of major issues related to the disease.

**Notes** This course is crosslisted with SW 422. Credit at the 600-level requires additional work.

SW 641 - Social Work with the Elderly  
Credits 3

Examination of social work practice with the elderly based on critical analysis of theories of the aging process.

**Notes** This course is crosslisted with SW 441. Credit at the 600-level requires additional work.

SW 661 - Seminar: Contemporary Issues in Social Welfare  
Credits 1-6

In-depth examination of current major issues in social programs and policies, and consideration of alternatives.

**Notes** This course is crosslisted with SW 461. Credit at the 600-level requires additional work.  
May be repeated.

SW 662 - Issues in Child Welfare  
Credits 3

Study of public child welfare, history, policy, programming, services, and practice. For use in child abuse and neglect, child removal, permanency planning, termination of parental rights, reservation/reunification of families, supportive services to families, current interventive and service delivery systems, home-based preventive services, foster care and adoption.

**Notes** This course is crosslisted with SW 462. Credit at the 600-level requires additional work.

SW 670 - Community Organization Practice  
Credits 3

Studies the use of community organization in social work practice. Includes historical development, community organization dynamics and theory, process, and the value base of community organization practice.

**Notes** This course is crosslisted with SW 470. Credit at the 600-level requires additional work.

SW 671 - Advanced Seminar: Special Problems  
Credits 1-3

Topic to be selected by instructor.

**Notes** This course is crosslisted with SW 471. Credit at the 600-level requires additional work.

SW 672 - Principles of Family Counseling  
Credits 3

Seminar designed to study the principles, process, and skills required for helpers to assist family members in coping with dysfunction in the family unit.

**Notes** This course is crosslisted with SW 472. Credit at the 600-level requires additional work.

SW 674 - Grant Writing and Management  
Credits 3

Prepares current health and human service professionals to develop and write effective grant proposals. Provides a basic overview and review of the grant writing process. This course helps students generate program ideas, plan and develop funding proposals to support those ideas, and seek appropriate



funding sources.

**Notes** This course is crosslisted with SW 474. Credit at the 600-level requires additional work.

SW 675 - Treatment of Addictions  
Credits 3

Five elements covered include; classification of drugs, phases of treatment of addictions, basic individual and group treatment skills, contents of various treatment approaches, and the treatment guidelines regarding working with special populations, including women, adolescents, elderly, etc.

**Notes** This course is crosslisted with SW 475. Credit at the 600-level requires additional work.

SW 678 - Global Child Welfare  
Credits 3

This course addresses the major challenges faced by children and their families globally and prepares the student for further study or action in specific areas of concern. Each content area (poverty, child labor, exploitation, etc.) will cover incidence, political, social and cultural interplay, current response, and recommended future strategies.

**Notes** This course is crosslisted with SW 478. Credit at the 600-level requires additional work.

**Prerequisites** SW 715 and SW 735 or consent of instructor.

SW 693 - Gandhian Welfare Philosophy and Nonviolent Culture  
Credits 3

Introduction to the chosen topics in Gandhian welfare philosophy. Ethical, moral, social, and political foundations of Gandhian thought explored and their applications to problem resolution strategies and peaceful change at different levels demonstrated.

**Notes** This course is crosslisted with SW 493. Credit at the 600-level requires additional work.

SW 694 - Eastern Conceptions and Social Work Practice  
Credits 3

Introduces Eastern conceptions, useful in social work practice. Broader knowledge of life, living, society, values, relationships, and behaviors extended.

Applications sought for lasting and effective problem-solving and therapeutic processes.

**Notes** This course is crosslisted with SW 494. Credit at the 600-level requires additional work.

SW 701 - Social Welfare Policy I  
Credits 3

Introduction to the history and philosophy of social welfare and social work in the United States. Social welfare decision making, policies, and services. Theory of social need and social interventions.

**Prerequisites** Graduate standing in Social Work.

SW 703 - Social Welfare Policy II  
Credits 3

Examines social welfare policy and provides analytical frameworks and guidelines for determining the efficacy of public policy in addressing human needs. Focuses on the issues of poverty, social services and generalist social work practice.

**Prerequisites** SW 701

SW 705 - Social Work Practice with Therapeutic Groups  
Credits 3

Historical development of group work, practice methodology in interactional groups, and theoretical underpinnings for social work practice. Focuses on development of skills to lead therapeutic groups with a variety of diverse urban population.

**Prerequisites** SW 720 and SW 730 or SW 780

SW 707 - Contemporary Issues in Diversity  
Credits 3

In-depth study of selected contemporary issues in diversity, including issues such as immigration and native status, ethnicity, gender, and sexual orientation.

**Notes** Course may be repeated to a maximum of six credits.

SW 710 - Child Welfare Practice  
Credits 3

Develops advanced knowledge and skills for use in intervening in current or potential problems of abuse, neglect, dependency, unruliness, and delinquency of children and youth. Types of services, both traditional and new, social workers provide to children.

**Prerequisites** SW 793 or concurrent enrollment in SW 793.

SW 715 - Human Behavior and the Social Environment I

Credits 3

Provides advanced knowledge-building theories and knowledge of normal and abnormal human bio-psycho-social development and functioning of individuals, families and micro-groups. Focuses on the impact of social, economic, and cultural systems on individual, family and group well-being. Provides foundational understanding of the use of DSM-IV.

**Prerequisites** Graduate standing in Social Work.

SW 716 - Social Work Research I

Credits 3

Provides an understanding of the scientific-alytic approach to the building of the knowledge base for social work practice at different levels. Provides familiarity with quantitative and qualitative research methodologies, various research designs, sampling procedures, data collection procedures, data analysis techniques, and report writing. Emphasizes diversity, empowerment, and social justice considerations as well as ethical standards of conducting research.

**Prerequisites** Graduate standing in Social Work.

SW 719 - Foundation Practicum I

Credits 3

Foundation field practicum course requires 225 hours of generalist social work practice in a social service agency and participation in weekly field seminar classes. Provides broad range of experiences, from micro to macro levels of intervention. Ongoing professional field supervision/consultation is a required component.

**Corequisite** Enrollment in SW 720.

SW 720 - Foundation Practice Methods I

Credits 3

First course in the foundation practice sequence introduces students to a generalist practice approach with individual, families, and groups. Emphasizes values, ethics, knowledge, and skills essential for working with clients. Prepares students with generic practice skills in assessment, interviewing, intervention, evaluation, and termination.

**Prerequisites** Graduate standing in Social Work.

**Corequisite** Enrollment in SW 719.

SW 726 - Social Work Research II

Credits 3

Provides knowledge and practice of program evaluation, single-subject design, descriptive statistics, inferential statistics, data management and data analysis using SPSS.

**Prerequisites** SW 716

SW 729 - Foundation Practicum II

Credits 3

Foundation field practicum course requires 225 hours of generalist social work practice in a social service agency and participation in weekly field seminar classes. Provides broad range of experiences, from micro to macro levels of intervention. Ongoing professional field supervision/consultation is a required component.

**Prerequisites** SW 719

**Corequisite** Enrollment in SW 730.

SW 730 - Macro Theory and Practice

Credits 3

Second course in the generalist foundation practice sequence focuses on professional practice with organizations, groups, coalitions, and communities, utilizing advanced knowledge and theories at the mezzo and macro levels. Emphasizes a strengths perspective and provides generalist-level content in management, community organization and development, and policy practice.

**Prerequisites** SW 719, SW 720

**Corequisite** Enrollment in SW 729.

SW 734 - Advanced Standing Practice Seminar

Credits 3

Overview of the generalist model of social work practice with individuals, families, groups, communities, and organizations, emphasizing the integration of knowledge and practice, with the emphasis on practice skill development.

**Notes** Non-repeatable

**Grading** Letter Grade

SW 736 - Advanced Standing Integrative Seminar

Credits 3

Overview of the scientific method and research methodology with application of qualitative and quantitative analysis to social problems at the micro and macro levels, with special reference to diverse and oppressed populations.

**Notes** Non-repeatable for credit.

**Grading** Letter Grade.

SW 739 - Field Practicum I (DP)

Credits 3

Field practicum requires 300 hours in a social service agency and attendance in weekly field seminar classes. Builds upon generalist foundation. Prepares for advanced, critically analyzed, and ultimately autonomous direct social work practice. Ongoing professional field supervision/consultation also required.

**Prerequisites** SW 729 or Advanced Standing.

**Corequisite** Enrollment in SW 740.

SW 740 - Direct Practice I

Credits 3

First course in advanced direct social work practice. Integrates skills of assessment, interviewing, intervention, and termination into social work treatment models and theories. Builds upon generalist foundation. Highlights empowerment, client advocacy, and strengths perspective. Emphasizes social work with individuals from culturally diverse and oppressed populations.

**Prerequisites** SW 730 or advanced standing.

**Corequisite** Enrollment in SW 739.

SW 747 - DSM: Assessment and Diagnosis

Credits 3

Exploration and a synopsis of the criteria for diagnoses in the DSM for social work practice. Focuses on the use of DSM in assessment interventions and with diverse urban populations.

SW 749 - Field Practicum II (DP)

Credits 3

Field practicum course requires 300 hours of experience in a social service agency and attendance in weekly field seminar classes. Builds upon generalist foundation. Prepares for advanced, critically analyzed, and ultimately autonomous direct social work practice. Ongoing professional field supervision/consultation also required.

**Prerequisites** SW 739

**Corequisite** Enrollment in SW 750.

SW 750 - Direct Practice II

Credits 3

Second course in advanced direct social work practice. Intergrades systems of family-centered practice. Builds upon generalist and advanced curricula. Explores context of social work with

families and groups via historical, conceptual, and contemporary modes of practice. Emphasizes working with culturally diverse and oppressed populations.

**Prerequisites** SW 740

**Corequisite** Enrollment in SW 749.

SW 755 - Seminar in Forensic Social Work

Credits 3

Explores the interaction between social work and the law. Emphasizes the knowledge, skills, and values of practice with and within legal settings with a focus on interdisciplinary collaborations, ethical issues, and the varying roles of social workers within the legal arena.

SW 759 - Field Practicum I (MCP)

Credits 3

Field practicum course requires 300 hours of experience in a social service agency and attendance in weekly field seminar classes. It builds upon generalist foundation. Prepares for advanced, critically analyzed and ultimately autonomous practice in management and community practice. Ongoing professional field supervision/consultation also required.

**Prerequisites** SW 729 or advanced standing.

**Corequisite** Enrollment in SW 760.

SW 760 - Management and Community Practice I

Credits 3

Advanced applications of the management and planning processes as they relate to community organization and development. Uses community practice and management frameworks for human service organizations and community development and change.

**Prerequisites** SW 729 or advanced standing.

**Corequisite** Enrollment in SW 759.

SW 763 - Principles of Public Administration

Credits 3

Survey of the field of public administration with introduction to the function of finance, personnel, administration, evaluation, research and planning.

**Same as** PUA 701

**Prerequisites** Enrollment in the M.S.W. or M.P.A. program or consent of instructor.

SW 765 - Financial Management and Resource Development  
Credits 3

Addresses the knowledge and skills needed to financially manage a human services organization. Prepares the student with problem-solving skills for innovative management in financial processes such as planning, financial control and analysis, budgeting, grant proposal writing, and resource development and allocation in a challenging environment.

**Same as** PUA 705

**Prerequisites** PUA 701 or consent of instructor.

SW 767 - Seminar in Public Personnel Administration  
Credits 3

Includes advanced reading, discussion and research in personnel problems as seen in the public and nonprofit sector.

**Same as** PUA 708

**Prerequisites** PUA 701 or consent of instructor.

SW 768 - Supervision in Social Work  
Credits 3

Delineates and explores principles, concepts, and components of supervision in social work. Examines the transition from worker to supervisor, differentiates supervision and consultation.

**Prerequisites** Graduate standing in Social Work.

SW 769 - Field Practicum II (MCP)  
Credits 3

Field practicum course requires 300 hours of experience in a social service agency and attendance in weekly field seminar classes. It builds upon generalist foundation. Prepares for advanced, critically analyzed and ultimately autonomous practice in management and community practice. Ongoing professional field supervision/consultation also required.

**Prerequisites** SW 759 or advanced standing.

**Corequisite** Enrollment in SW 770.

SW 770 - Management and Community Practice II  
Credits 3

Develops skills in needs assessment, program design and evaluation. Students understand social problems in the context of their communities and the needs and problems of a variety of sub-populations.

**Prerequisites** SW 760

**Corequisite** Enrollment in SW 769.

SW 775 - Advanced Policy Practice  
Credits 3

Advanced knowledge and skills in effective advocacy in the human services, particularly in management and community practice. Focus on social workers as political actors and activists with the ability to determine effective strategies and techniques among policy alternatives and an understanding of ethical complexity in an advocacy and political context.

**Prerequisites** SW 701, SW 703, SW 730

SW 776 - Legal and Ethical Issues in Social Work  
Credits 3

**Formerly** SW 676

SW 779 - Field Practicum (APP) III  
Credits 3

Supervised social work practice experience consisting of 300 hours in a child welfare agency and attendance in weekly field seminar classes. Provides for the integration and application of social work values, knowledge, and micro to macro levels of advanced practice skills.

**Prerequisites** SW 769

**Corequisite** Enrollment in SW 780.

SW 785 - Special Topics in Advanced Policy  
Credits 3

Advanced studies in a selected social policy issue. Emphasizes policy analysis of current and critical issues in areas such as child and family studies, poverty and homelessness, health and mental health, addictions, and policy practice.

**Prerequisites** SW 701, SW 703.

SW 786 - Child Welfare Program Evaluation  
Credits 3

In-depth analysis of the planning and evaluation process in child welfare. Analyzes challenges confronting child welfare organizations in the United States.

**Prerequisites** SW 716, SW 726

SW 789 - Field Practicum II (Child Welfare)  
Credits 3

Supervised social work practice experience consisting of 300 hours in a child welfare agency and

attendance in weekly field seminar classes. Provides for an appropriate progression in the integration and application of social work values, knowledge, and micro to macro levels of advanced practice skills.

**Prerequisites** Child Welfare Concentration.

#### SW 790 - Family-Based Practice

Credits 3

Provides students with an understanding of and advanced competencies in family-based services. Integration of theory, practice, programming and research within family-based services. Students apply therapeutic problem solving models to complex family patterns.

**Prerequisites** SW 710, SW 793, or consent of instructor.

#### SW 791 - Advanced Practice With Children

Credits 3

Examination of child and adolescent treatment issues and corresponding interventions. Child behavior disorders; issues of abandonment, grief and loss; and general children's mental health issues.

**Prerequisites** Graduate standing in Social Work.

#### SW 792 - Cross-Cutting Issues in Child Welfare

Credits 3

Special topics in the child welfare system, focusing primarily on the issues of mental health, substance abuse, and domestic violence faced by clients in the child welfare system.

**Prerequisites** Graduate standing in Social Work.

#### SW 793 - Child Welfare Policy and Services

Credits 3

Analyzes contemporary United States public child welfare policy, programs, and services, emerging policy and program directions in the field of child welfare, and their historical and philosophical roots, with particular emphasis on the preservation and reunification of families, preventive and supportive services, permanency planning, foster care, and adoption.

**Prerequisites** SW 701 and SW 703

#### SW 795 - Capstone Seminar

Credits 3

Capstone seminar focused on assessing intervention theories and strategies regarding a specific topic in social work practice.

**Prerequisites** SW 701, SW 703, SW 715, SW 716, SW 719, SW 720, SW 726, SW 729, and SW 730.

#### SW 796 - Thesis

Credits 3

Development, completion, and oral defense of research project before a chosen committee, aimed at evaluation of practice outcomes at different levels and advancement of scientific knowledge for social work practice.

**Prerequisites** SW 716, SW 726

#### SW 797 - Culturally Competent Child Welfare Practice

Credits 3

Cultural competence in child welfare practice. Examination social, psychological, economic, political, and other structural aspects of racism, ethnicity, and multiculturalism as a dynamic of the public child welfare services system in the United States.

**Prerequisites** Graduate standing in Social Work.

#### SW 798 - Child Welfare Administration and Supervision

Credits 3

Introduces students to contemporary theories on administration and supervision in organizations which provide services to children and families. Focuses on public and nonprofit child welfare administration and supervision.

**Prerequisites** SW 793

#### SW 799 - Independent Study

Credits 1 – 3

Intensive study in a specific area of student interest under the direction of a faculty member. May be repeated to a maximum of six credits.

**Prerequisites** Consent of instructor.

#### SW 7001 - Introduction to Forensic Social Work

Credits 1

Required for Forensic Social Work Certification.

Course provides an overview of forensic social work principles and practice. Students are oriented to the roles and functions of social workers in host legal settings, and introduced to the organizational and professional cultural factors inherent to interdisciplinary collaborations.

SW 7002 - Seminar in Criminal Law  
Credits 3

Required for Forensic Social Work Certification. Addresses the social worker's involvement in criminal law as part of a legal team. Topics cover criminal litigation from the time an individual is charged through to adjudication and sentencing.

**Prerequisites** Admission to the Forensic Social Work Certification Program.

SW 7003 - Seminar in Family Law  
Credits 3

Surveys a spectrum of issues involving marriage, cohabitation and the family. Topics include the law and ethics of alternative dispute resolution (e.g. family, custody and divorce mediation), litigation in family matters, adoption, custody, guardianship, same-sex cohabitants, and parent-child issues with a solution focus.

**Prerequisites** Admission to the Forensic Social Work Certification Program.

SW 7004 - Skills Lab in Forensic Social Work  
Credits 3

Students will demonstrate forensic social work practice skills under critical analysis and review. Areas of focus include documentation and report writing for the legal arena, expert witness testimony, interviewing and assessment, mock court and advocacy.

**Prerequisites** Admission to the Forensic Social Work Certification Program.

SW 7005A - Field Practicum - Forensic Social Work  
Credits 3

Required for Forensic Social Work Certification. Alternative to SW 7005B. Experiential learning at a community-based agency within the legal arena. Students will apply forensic social work theory and concepts to supervised practice.

**Notes** Course requires completion of practicum hours and field seminar attendance.

**Prerequisites** Admission to the Forensic Social Work Certification Program; SW 7001.

SW 7005B - Professional Presentation - Forensic Social Work  
Credits 3

Alternative to SW 7005A. Students will participate in directed research and present in a topical area of

forensic social work theory or practice at a conference or symposium.

**Prerequisites** Admission to the Forensic Social Work Certification Program; instructor permission required.

SW 7010 - Capstone to Forensic Social Work  
Credits 2

Continuation of SW 7001; students are required to demonstrate integration and synthesis of certification program content. Requirements include the production of (1) a publication quality paper co-authored with social work or law faculty, and (2) a professional portfolio documenting program achievements.

**Prerequisites** Admission to the Forensic Social Work Certification Program, SW 7001.