



UNLV *Graduate Catalog*
2009-2011

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

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Disclosures

Rights of Privacy Act of 1974

The Federal Family Education Rights and Privacy Act of 1974 affords persons who are currently, or who were formerly, in attendance at the university as registered students a right of access to their "educational records," which contain information directly related to such persons and the right to challenge the accuracy of their records. The act also restricts the persons to whom the university may disclose a student's educational records without the student's written permission. The university's policy is to comply fully with all provisions of the act, and a detailed

statement concerning the rights afforded current and former students is available, at no cost, in the office of UNLV's General Counsel. Any person who feels the university has failed to comply with the Federal Family Education Rights and Privacy Act may file a complaint with the Family Education Rights and Privacy Act Office, Department of Education, 300 Independence Avenue S.W., Washington D.C. 20201.

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 2009-2011 Graduate Catalog describes current academic programs of study, course descriptions and degree requirements at the graduate level for the academic years 2009-10 and 2010-11 at the University of Nevada, Las Vegas. The content of this catalog is current as of August 2009, 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>.
@2009



A Message from UNLV President Neal J. Smatresk

As the new president of UNLV, I'm delighted to encourage you to consider graduate studies at the University of Nevada, Las Vegas. UNLV is a wonderful institution with exceptional programs, excellent faculty, and a supportive atmosphere where graduate education thrives.

As you explore graduate education at UNLV, you'll be pleased to learn that nearly a quarter of UNLV's students are currently enrolled in graduate/professional programs. The number of students in these programs has increased by 33 percent since 2003. These numbers should provide some indication of the significance of graduate studies at UNLV. We know that high quality graduate education is pivotal to the growth and sophistication of our institution.

In addition to supporting the educational and research missions of the university, graduate education also plays a pivotal role in preparing tomorrow's leaders in many professions. It enables our students to move into the workplace with the kind of preparation that only advanced study can provide. Alumni of our graduate programs are the professionals who lead our community in health care, education, law enforcement, social work, business, art, and engineering, just to name a few critically important fields. Their contributions are vital to the quality of life that we enjoy here in Southern Nevada.

Again, we welcome your interest in UNLV and encourage you to join us in our dedication to research and graduate education as we create a bright future for our university and community.

Dr. Neal J. Smatresk
UNLV President

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Degree Programs

Accounting – M.S.
Anthropology – M.A.; Ph.D.
Architecture – M. Arch
Aerospace Engineering – M.S.
Art – M.F.A.
Astronomy – M.S.; Ph.D.
Biochemistry – M.S.
Biological Sciences – M.S.
Biomedical Engineering – M. S.
Business Administration – M.B.A.; Executive M.B.A.
Business Administration/Dental Medicine – Dual M.B.A./
D.M.D.
Business Administration/Hotel Administration – Dual
M.B.A./M.S.
Business Administration/Law – Dual M.B.A./J.D.
Business Administration/Management Information
Systems – Dual M.B.A./M.S.
Chemistry – M.S.; Ph.D.
Civil & Environmental Engineering – M.S.E.; Ph.D.
Clinical Mental Health M.S.
Communication Studies – M.A.
Community Health Counseling – M.S.,
Computer Science – M.S.C.S.; Ph.D.
Construction Management – M.S.C.S.
Creative Writing – M.F.A.
Criminal Justice – M.A.
Crisis and Emergency Management – M.S.
Curriculum & Instruction – M.Ed.; M.S.; Ed.S.; Ed.D.; Ph.D.
Economics – M.A.
Education/Law – Dual Ph.D in Education/J.D.
Educational Leadership– M.Ed.; M.S.; Ed.S.; Ed.D.;
Executive Ed.D.; Ph.D.
Educational Psychology–M.S.; Ed.S.; Ph.D.
Educational Psychology & Juris Doctor Dual Ph.D./J.D.
Electrical & Computer Engineering – M.S.E.E.; Ph.D.
English – M.A.; Ph.D.
Environmental & Occupational Health – M.P.H.
Environmental Science – M.S.; Ph.D.
Ethics & Policy Studies – M.A.
Exercise Physiology – M.S.
Film, Screenwriting – M.F.A.
Foreign Languages – M.A.
Geosciences – M.S.; Ph.D.
Health Care Administration – M.H.A.
Health Physics – M.S.
Health Promotion – M.Ed.
Higher Education Leadership – Ph.D.
Higher Education Leadership – M.Ed.
History – M.A.; Ph.D.
Hospitality Administration – Executive M.H.A; Ph.D.
Hotel Administration – M.S.
Hotel Administration/M.B.A – Dual M.S./M.B.A.
Hotel Administration/M.I.S. – Dual M.S./ M.I.S.
Informatics – M.S.; Ph.D.
Journalism & Media Studies – M.A.
Kinesiology – M.S.

Learning & Technology – Ph.D.
Management Information Systems – M.S.
Management Information Systems & Business Administration
Dual M.S./M.B.A.
Management Information Systems & Hotel Administration
Dual M.S.
Marriage & Family Therapy – M.S.
Materials & Nuclear Engineering – M.S.
Mathematical Sciences – M.S.; Ph.D.
Mechanical Engineering – M.S.E., Ph.D.
Music – M.M.
Musical Arts – D.M.A.
Nursing – M.S.N.; Ph.D.
Physical Therapy – D.P.T.
Physics – M.S.; Ph.D.
Political Science – M.A.; Ph.D.
Psychology – Ph.D.
Public Administration – M.P.A.
Public Affairs – Ph.D.
Public Health – M.P.H.; Ph.D.
Radiochemistry – Ph.D.
School Counseling – M.Ed.
Science – M.A.S.
Social Work – M.S.W.
Social Work/Law – Dual M.S.W./J.D.
Sociology – M.A.; Ph.D.
Spanish, Hispanic Studies – M.A.
Special Education– M.Ed.; M.S.; Ed.S.; Ed.D.; Ph.D.
Sport & Leisure Service Management – M.S.
Sport Education Leadership– M.Ed.; M.S.; Ph.D.
Teacher Education – Ph.D.
Theatre – M.A.; M.F.A.
Transportation – M.S.T.
Water Resources Management – M.S.
Workforce Education & Development – M.Ed; M.S.

Graduate and Advanced Graduate Certificate Programs

Addiction Studies (Counselor Education)
Advanced Graduate Certificate in Accounting (Accounting)
Graduate Certificate in Accounting (Accounting)
Graduate Certificate in Management (Management)
Family Nurse Practitioner (Nursing)
Finance Graduate Certificate (Finance)
Forensic Social Work (Social Work)
Management Information Systems (Management Information)
Marriage & Family Therapy (Marriage & Family
Therapy)
Mental Health Counseling (Counselor Education)
New Venture Management Graduate Certificate (Management)
Nonprofit Management (Public Administration)
Nursing Education Post-Masters Certificate (Nursing)
Pediatric Nurse Practitioner Certificate (Nursing)
Public Management (Public Administration)
Women's Studies (Women's Studies)

Academic Calendar

Fall Semester 2009

| | | |
|-----------|-------|--------------------------|
| August | 24 | Instruction begins. |
| September | 7 | Labor Day recess. |
| October | 30 | Nevada Day recess. |
| November | 11 | Veterans Day recess. |
| December | 26-27 | Thanksgiving Day recess. |
| | 7-12 | Study Week. |
| | 12 | Instruction ends. |
| | 10-15 | Final examinations. |
| | 15 | Semester ends. |
| | 15 | December Commencement. |

Spring Semester 2010

| | | |
|----------|----|-------------------------------|
| January | 11 | Instruction begins. |
| | 18 | Martin Luther King holiday. |
| February | 15 | Washington's Birthday recess. |
| March | 13 | Mid-semester. |
| | 29 | Spring Break begins. |
| April | 3 | Spring Break ends. |
| | 26 | Study Week begins. |
| May | 1 | Study Week ends. |
| | | Instruction ends. |
| | 8 | Semester ends. |
| | 8 | Commencement. |

Summer Session 2010 I

| | | |
|-----|----|---------------------|
| May | 10 | Instruction begins. |
| | 28 | Instruction ends. |

Summer Session 2010 II

| | | |
|------|----|--------------------------|
| May | 31 | Memorial Day Recess |
| June | 1 | Instruction begins. |
| | 2 | Instruction ends. |
| July | 5 | Independence Day recess. |
| | 6 | Instruction begins. |
| | 11 | Instruction ends. |

Summer Session 2010 III

| | | |
|-----------|-------|----------------------|
| July | 5 | Instruction begins. |
| August | 6 | Instruction ends. |
| Fall 2010 | | |
| August | 23 | Instruction begins. |
| September | 6 | Labor Day recess. |
| October | 29 | Nevada Day recess. |
| November | 11 | Veterans Day recess. |
| | 25-26 | Thanksgiving recess. |
| | 29 | Study Week begins. |
| December | 4 | Study Week ends. |

| | |
|----|-------------------|
| 4 | Instruction ends. |
| 11 | Semester ends. |

Spring Semester 2011

| | | |
|----------|-------|-------------------------------|
| January | 17 | Martin Luther King holiday. |
| | 18 | Instruction begins. |
| February | 21 | Washington's Birthday Recess. |
| March | 14-19 | Spring Break. |
| May | 2-7 | Study Week |
| | 7 | Instruction ends. |
| | 14 | Semester ends. |
| | | Commencement. (TBA) |

Summer Session 2011 I

| | | |
|------|----|----------------------|
| May | 16 | Instruction begins. |
| | 30 | Memorial Day Recess. |
| June | 1 | Instruction ends. |

Summer Session 2011 II

| | | |
|------|---|--------------------------|
| June | 6 | Instruction begins. |
| July | 4 | Independence Day recess. |
| | 9 | Instruction ends. |

Summer Session 2011 III

| | | |
|--------|----|---------------------|
| July | 11 | Instruction begins. |
| August | 13 | Instruction ends. |

***Dates are subject to change**

UNLV Web Resources

Graduate College:

<http://graduatecollege.unlv.edu/>

Graduate Study Timeline

<http://graduatecollege.unlv.edu/current/guidance/>

Research and Graduate Studies

<http://research.unlv.edu/>

The Graduate & Professional Student Association

<http://gpsa.unlv.edu/>

Academic Colleges & Divisions:

Business

<http://business.unlv.edu/>

Education

<http://education.unlv.edu/>

Engineering

<http://engineering.unlv.edu/>

Fine Arts

<http://finearts.unlv.edu/>

Honors

<http://honors.unlv.edu/>

Hotel

<http://hotel.unlv.edu/>

Health Sciences (Division of)

<http://healthsciences.unlv.edu/>

Liberal Arts

<http://liberalarts.unlv.edu/>

Sciences

<http://sciences.unlv.edu/>

Urban Affairs

<http://universitycollege.unlv.edu/>

Additional Resources, Departments, & Services:

Campus Life

<http://studentaffairs.unlv.edu/units/campuslife/index.html>

Campus Recreation and Wellness Center

<http://srwc.unlv.edu>

Career Services

<http://hire.unlv.edu>

Cashiering and Student Accounts

<http://cashiering.unlv.edu>

Disability Resource Center

<http://studentlife.unlv.edu/disability>

Financial Aid and Scholarships

<http://finaid.unlv.edu/>

International Students and Scholars

<http://studentlife.unlv.edu/international/>

Jean Nidetch Women's Center

<http://womenscenter.unlv.edu>

Library Services

<http://www.library.unlv.edu/>

Office of Student Conduct

<http://studentlife.unlv.edu/judicial/>

Parking Services

<http://parking.unlv.edu>

Rebel Card Services

<http://www.rebelcard.edu>

Registrar's Office

<http://register.unlv.edu/>

Research Centers & Institutes

<http://research.unlv.edu/cli&m/centers-institutes.html>

Student Computing Help Desk

<http://oit.unlv.edu/students>

Student Counseling & Psychological Services

<http://studentlife.unlv.edu/caps/>

Student Diversity Programs & Services

<http://getinvolved.unlv.edu>

Student Health Center

<http://studentlife.unlv.edu/shc/>

Student Union

<http://studentunion.unlv.edu>

UNLV Bookstore

<http://unlv.bnccollege.com>

UNLV Campus Dining

<http://www.unlvdining.org>

Veteran Services

<http://finaid.unlv.edu/veterans/>

Writing Center

<http://writingcenter.unlv.edu>

About UNLV

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.

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.

Accounting

The Association to Advance Collegiate Schools of Business (AACSB)

Architecture

National Architectural Accrediting Board (AAB)

Art

National Association of Schools of Art and Design (NASAD)

Athletic Training

Commission on Accreditation of Athletic Training Education (CAATE)

Business Administration

The Association to Advance Collegiate Schools of Business (AACSB)

Computer Science

Accreditation Board for Engineering and Technology (ABET)

Construction Management

American Council for Construction Education (ACCE)

Didactic Program in Dietetics

Commission on Accreditation for Dietetics Education (CADE)

Dental Medicine

Commission on Dental Accreditation (CODA)

Economics

The Association to Advance Collegiate Schools of Business (AACSB)

Education

The National Council for Accreditation of Teacher Education (NCATE)

Engineering

Accreditation Board for Engineering and Technology (ABET)

Gerontology

Association for Gerontology in Higher Education (AGHE)

Health Care Administration

Association of University Programs in Health Administration (AUPHA)

Health Education

American Association for Health Education (AAHE)

Health Physics

Applied Science Accreditation Commission of the Accreditation Board for Engineering and Technology (ASAC ABET)

Interior Architecture and Design

Council for Interior Design Accreditation (CIDA)

Landscape Architecture

Landscape Architects Accreditation Council (LAAB)

Law

American Bar Association (ABA) (member of AALS)
Association of American Law Schools

Marriage and Family Therapy

Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE)

Music

National Association of Schools of Music (NASM)

Nuclear Medicine

Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT)

Nursing

National League for Nursing (NLN)

Phlebotomy Certificate

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)

Physical Education

National Association for Sport & Physical Education (NASPE)

Physical Therapy

Commission on Accreditation in Physical Therapy Education (CAPTE)

Psychology (Clinical)

American Psychological Association (APA)

Public Administration

National Association of Schools of Public Affairs and Association (NASPAA)

Radiography

Committee on Education in Radiologic Technology (JRCERT)

Recreation – Professional Golf

Management Professional Golf Association (PGA)

Social Work

Council on Social Work Education (CSWE)

Theatre

National Association of Schools of Theatre (NAST)

Division of Research & Graduate Studies



As Vice President for Research and Graduate Dean, I would like to extend a warm welcome to those interested in graduate study at UNLV. I believe you will find our graduate programs among the best in the country, attracting the best and brightest students nationally and internationally.

Offering nearly 120 graduate degree programs, including 36 doctoral and professional degrees,

UNLV provides wide-ranging and unique areas of study to more than 6,000 graduate and professional students. The UNLV Graduate College seeks to provide its students with the highest quality academic experience, including excellent opportunities for research, scholarship, and creative activity. We pride ourselves on cultivating a campus culture that promotes involvement of graduate students in these activities.

We also seek to identify new and innovative ways to meet graduate students' needs. We provide ample opportunities for financial assistance, offering a wide variety of assistantships, fellowships, and scholarships, and we maintain a customer service orientation in our efforts to meet student needs beyond the classroom and laboratory.

The Graduate College looks forward to working with your academic department to facilitate your education. We are dedicated to enhancing your experience at UNLV and will do our very best to guide you as you pursue graduate study.

Ron Smith, Ph.D.
Vice President & Graduate Dean
Division of Research and Graduate Studies

The UNLV Graduate College

The Graduate College strives to achieve the institutional mission by supporting a wide range of excellent master's and doctoral degree programs in the major areas of human knowledge—the physical sciences, the social sciences, the humanities, and the arts—as well as in professional fields that respond to local, state-wide, and

regional needs. It is clear that our institution's mission of becoming a premier metropolitan research university with academically excellent programs that focus on student needs as well as issues and problems of the local community and state of Nevada rests, in large part, with the direction, growth and quality of UNLV graduate education. This commitment is further supported by the integration of the university's research and graduate program management into the Office of Research and Graduate Studies. This structure strategically links the on-going development of UNLV's research infrastructure with graduate education and directly enhances scholarship opportunities for graduate students.

The Graduate College seeks to support and advance graduate education, including the student learning, the research, scholarly, and creative activities, and the community and institutional services associated with it. The Graduate College is ideally suited to fulfill this purpose and, in this capacity, will assist academic departments and colleges as well as coordinate efforts with student service and administrative offices to meet the needs and interests of graduate students, graduate faculty, and graduate programs; encourage programs and programmatic emphases that meet the challenges of our rapidly growing local population, state, and region as well as the challenges facing the nation and world; articulate a standard of intellectual excellence that pervades university discussions and decisions about matters that affect graduate education; provide university-wide policies and guidance which define good practice in graduate program administration; and bring faculty and students together to encourage intellectual communication, multidisciplinary and interdisciplinary graduate instruction; and cooperative research and artistic projects.

The Graduate College, in all of its policies and actions, must reinforce and encourage that the institution is an intellectual community where students, faculty, and programs with different backgrounds and interests all pursue advanced knowledge and seek improvement of the human condition for the twenty-first century. This shared purpose ultimately defines the most important reason for the existence of a Graduate College and the larger community.

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. All decisions of admissions and employment are based on objective standards that will further the goals of equal opportunity.

The university is committed to assuring that all programs and activities are readily accessible to all eligible persons without regard to their race, color, religion, gender, national origin, ancestry, age, disability, Vietnam-Era and/or disabled veteran status, any protected class under relevant state and federal laws, and, in accordance with university policy, sexual orientation.

Persons having questions regarding university policies relating to nondiscrimination law are encouraged to contact

the Office of Human Resources and Diversity Initiatives, Campus Services Building, room 237 or call (702) 895-3504.

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 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 sometimes tedious, oftentimes exhilarating work in your chosen field, you will have the satisfaction of having mastered a body of knowledge that places you in an elite group. Your achievement of a graduate degree will be a beginning, not an end. It will only be the start of your development and a forecast of your potential for future contributions to your chosen area of interest.

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.

The Graduate 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 sponsors 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 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.

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 seeks to develop, implement, coordinate, and monitor a university-wide graduate recruitment program. Primary goals of this program are to assist the individual graduate programs to identify potential graduate students and to encourage these students to apply and enroll. Also, the Graduate College participates in the UNLV McNair Scholars Program that helps to identify and prepare under represented and minority students for graduate school.

Thesis and Dissertation Support. For many programs, the thesis or dissertation represents the culmination of the graduate experience. 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. For example, a Professional Development Program in College Teaching is currently offered in association with the University Teaching and Learning Center to individuals seeking academic careers.

Student Advising Services. The advising services provide informal and student-centered issue-resolution services, and general 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 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. GPSA's primary

goals are to improve the quality of graduate education and to offer graduate student grants for research and other scholarly projects.

Each department on campus has a graduate student representative who 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 and social lounge, a copy service and a computer lab. The office is open year round, all day and some evenings. Meetings are held on the first Monday of every month, and all graduate students are encouraged to attend and participate. For more information contact the GPSA office, Lied Library, Room 3251 or call (702) 895-2261.

Admission & Registration Information

Admission to the Graduate College at the University of Nevada, Las Vegas is competitive; the minimum standard is evidence of the ability to matriculate in and complete an advanced graduate degree successfully. The rules and criteria established by the Board of Regents, University, Graduate College, and individual graduate programs determine admissibility.

The Graduate College processes applications and supporting materials when received for the semester indicated by the applicant. All application materials must be received by June 15 for fall and November 15 for spring admission (May 1 and October 1, respectively, for international applicants). Application deadlines vary by department, and many graduate programs have different admissions deadlines that applicants must meet to be considered for admission. Students 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.

Admission Requirements

Requirements for Domestic Applicants

Applicants must meet the following academic requirements:

1. Hold a baccalaureate or advanced graduate degree from a regionally accredited four-year college;
2. Have a minimum overall grade point average of 2.75 (4.00=A) for the bachelor's degree, or a minimum 3.00 GPA (4.00=A) for the last two years of study;
3. A student who has an advanced degree from an accredited college or university with a minimum overall GPA of 3.00 may, at the option of the Graduate Dean and department, be admitted to an advanced degree program with an undergraduate grade point average of at least 2.00 but less than 3.00.

Requirements and Procedures for International Applicants

International applicants are considered for the Graduate Standing classification only. Besides the admission requirements listed previously, international applicants from countries where English is not the native language, or who did not receive a degree from an institution where English is the language of instruction, must show competency in English. The Graduate College requires a minimum score of 550 (written), or 213 (computerized), or 80 (internet-based) on the Test of English as a Foreign Language (TOEFL), 85 on the Michigan Test, or a 7 band or higher on the International English Language Testing System (IELTS).

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 Certificate of Finance 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 “Applying to Graduate School” link on the Graduate College homepage at <http://graduatecollege.unlv.edu>.
- A nonrefundable admission application fee, payable to the Nevada System of Higher Education 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 an additional application fee to cover processing.

- One official transcript from every postsecondary institution the applicant has attended, showing all degrees and coursework, the dates awarded, and extension and correspondence work.

*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 postsecondary 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, and 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. Information concerning standardized examinations required for admission to the degree program is available from the Student Development Center. 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 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. Applications are not processed until the Graduate College receives all required credentials. 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.). 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 them to the department for review. Upon review of the materials, 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 a Letter of Admission from the Graduate College. The Letter of Admission is an important document that the student should retain.
4. The admission process is completed upon enrollment in graduate-level courses for the specified term and degree program indicated on the Letter of Admission. Failure to enroll or withdraw from all course work, during the

semester of admission will void the Letter of Admission.

*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. Students needing more than two undergraduate 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 will not apply 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. To be considered for admission for a future semester, the student must reapply and submit another application processing fee.

Transfer Work

Courses used to fulfill requirements for one degree may not be used toward another degree. For UNLV Non-Degree Seeking graduate students, a maximum of 15 graduate credits taken at UNLV may be applied toward a graduate program. Graduate work 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 an 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 fee, and supporting credentials required by the Graduate College and the new department or program.

The Graduate College issues only two Letters of Admission without earning a degree. If a degree results from the admission, there is no limit to the number of allowable future admissions.

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.

Revocation of Admission

It is assumed 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 to determine what additional materials are needed. Materials from the previous application, such as official transcripts, may be used.

Admission Status and Classification of Students

Graduate Standing

Students accepted to pursue a program leading to an advanced degree are classified as having Graduate Standing. The 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.

Graduate Provisional

Students whose previous academic records are not strong enough to merit 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 Letter of Admission. The student must complete this course work within one calendar 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 a grade less than B (3.00) will automatically cancel the student's admission.

When the Graduate College receives the grades covering 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 may be granted when the applicant must submit additional material before finalizing admission, i.e., a final transcript of course work in progress while applying for admission. Graduate Standing or Graduate Provisional students may also be classified as Conditional Admission. The Letter of Admission will specify which material must be submitted and the date the Graduate College must receive it. Failure to meet the

condition(s) will automatically cancel the student's admission.

Non-Degree Student

The Non-Degree Student status is assigned to individuals with baccalaureate degrees who wish to take graduate courses but not pursue an advanced degree. Registration for classes as a Non-Degree Student is processed through the Graduate College. Generally, Non-Degree Students may enroll in up to 12 credit hours per semester.

Department faculty are responsible for determining the adequacy of preparation of Non-Degree Students before allowing them to take upper-division or graduate courses which are open to Non-Degree Graduate Students. The student should check with the department about graduate courses accessible to Non-Degree Students. It is the student's responsibility to provide proof of adequate preparation.

A Non-Degree Graduate Student wishing to seek a degree must apply for admission to the Graduate College and pay an application processing fee. Non-Degree 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 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 90 semester hours of credit and 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 700-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, UNLV undergraduates may take 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, 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 new 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. The Graduate College sends immunization forms along with the admission notification. For further information, contact the Student Health Center at (702) 895-3370.

Nevada Residency

The Dean of the Graduate College determines the Nevada residency of graduate students according 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 Schedule of Classes, which is made available 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 equivalent or six credits for 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. 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 a 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.

Course Numbers

Graduate-level courses are numbered 500-799.
Undergraduate-level courses are numbered 100-499.

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

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

| | |
|----|---------------|
| A | Superior |
| B | Above Average |
| C | Average |
| D | Below Average |
| F | Failing |
| AD | Audit |
| I | Incomplete |
| S | Satisfactory |
| X | Hold Grade |

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.

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 designed to be completed within one semester and where the student has failed to complete all of the requirements. The instructor is responsible for determining if the reason for non-completion is satisfactory.
2. An 'I' is given only when a minor part of the course work remains incomplete and the major portion has been completed at a level which is clearly passing.
3. Graduate students receiving an 'I' grade in 500, 600- or 700level 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'. Students must make up an Incomplete in a 400-level or lower course in one semester.

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 thesis, dissertation, or professional paper credits.

X (Hold) Grade

The X grade is restricted to 500-, 600- or 700-level research or clinical practicum courses where the course requirements may extend beyond one semester.

Grade Changes

A reported grade may be changed because of a clerical error made by the instructor or Registrar. Grade changes require the approval of the Graduate College Dean. Under present university regulations, the Registrar cannot change a grade once six months have passed following issuance of the official student grade report.

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.

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 Policy Manual

and the UNLV Student Conduct Code are available by request in the Graduate College and on our website. It is the responsibility of students to know and observe all regulations and procedures relating to their graduate program, the Graduate College, and UNLV. In no case will any regulations be waived or an exception granted based on a plea of ignorance of, or contention that the graduate program, Graduate College, or university did not inform a student of the regulations or procedures. Questions regarding graduate-level study regulations and their interpretation should be addressed to the Graduate College.

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 Note: 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).

If a student is deemed by a faculty member to be guilty of academic dishonesty, where applicable, the student may be assigned a failing grade for the corresponding segment of the course or for the entire course. The faculty member or administrator also may initiate disciplinary review under procedures described in the Nevada System of Higher Education document Rules and Disciplinary Procedures for Members of the University Community.

Disciplinary sanction options described therein include warning, probation, suspension, and expulsion or revocation of a degree if a degree has been previously awarded. In all cases the faculty member is responsible for recording the circumstances, notifying the student in writing, and for

giving the student an opportunity to reply. Appeals go to the chair of the student's academic department, academic dean and Graduate Dean.

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 the Rules and Disciplinary Procedures for Members of the University Community. 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, except credits earned by special examination or correspondence courses.

Correspondence study, credit by special examination, or enrollment in another institution within the Nevada System of Higher Education does not constitute an interruption of resident credit.

A minimum of 50 percent of the total credits required to complete the master's, specialist, or doctoral degree not including transferred credits, the thesis, dissertation, or professional paper must be earned at UNLV after admission to a graduate degree program.

Graduate Credit

All courses numbered 500-799 are considered graduate level. To determine which graduate-level courses will apply to a specific degree, the student must have them approved on a degree program. Prior to having a degree program approved, 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.

Graduate-level courses may not be challenged. Graduate courses which are graded on a satisfactory/fail basis, may not be used in a graduate degree program except for thesis, dissertation, or professional/scholarly paper credits.

Credit toward Degree

Courses used to fulfill requirements for one degree 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 Limitations: Prior to Admission and Enrollment

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. Courses used to fulfill requirements for one degree may not be used to reduce credit hour requirements in another degree program. For UNLV Non-Degree graduate students, a maximum of 15 graduate credits taken at UNLV may be applied toward a graduate degree program.

Transfer Credit Limitations: After Admission and Enrollment

Once admitted to an advanced degree program, students must obtain prior written consent of the department and the Graduate Dean to take course work elsewhere and use it in their degree program. Such work must be graduate level, graded, and must not be experimental, correspondence, or extended in nature.

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

1. The work must have been taken at an accredited institution;
2. The work must have been completed with a grade of B or higher (B- is not acceptable);
3. Official transcripts covering the work must be sent directly from the issuing institution to the Graduate College; and
4. The work must be posted to the student's permanent academic record.

Transfer credit is approved only when evidence exists that the work is certifiably graduate level and has not been used in another degree program. The age of the transfer work under consideration, or the year taken, may also be a factor. The student is responsible for providing this evidence. Courses used to fulfill requirements for a previous degree may not be used toward another degree.

After admission, credits (workshops and correspondence courses will not be considered) taken at another institution may be applied toward the degree if prior permission is obtained. Contact the Graduate College for the request form, additional information and the conditions of transfer credits.

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 petitions are available in the Graduate College office. Petitions must be approved by the Graduate Dean prior to registration.

Grade Point Average

A candidate for an advanced degree must have an overall grade point average of 3.00 for all graduate program approved courses. The GPA, computed by the Graduate College, includes all completed graduate course work accepted at admission and all subsequently approved course work.

Continuous Enrollment

After admission to a graduate program, students must register for a minimum of six semester hours each calendar year. Students working on a thesis or dissertation must register for three semester hours of credit 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 one calendar year 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, department chairperson or graduate coordinator, 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 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

The Six-Year and Eight-Year Policy applies to all course work, including all approved transfer degree course work. 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 than those previously discussed contingent upon the approval of the Graduate Dean and inclusion in the Academic Policies 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 making satisfactory progress toward the degree as long as they are completing six degree program credits per calendar year. Students not meeting this requirement will be separated from the Graduate College.

Master's Degree Students: 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: 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 must complete all requirements for the degree within eight years.

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. However, all degree requirements must be completed within the six- and/or eight-year policy as stated previously.

Probation and Separation

Departments are to review the academic performance of graduate students at the end of each semester and/or academic year. If a department determines that a student is not making satisfactory progress toward the degree, it may request the Graduate Dean separate the student from the college or place the student on probation. The department must provide the student with the specific requirements, including deadlines, which must be completed to be removed from probation. If the Graduate Dean approves the request, the student will be placed on probation. Failure to meet the conditions of the probation will result in separation from the Graduate College.

Failure to make satisfactory progress 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 advisor when requested; failure to establish a graduate committee; failure to develop an official, approved degree program; failure to establish the groundwork for an acceptable thesis or dissertation; and failure of comprehensive and qualifying examinations.

Students must prove that they are making satisfactory progress. Departments may establish their own benchmarks for progress, consistent with degree program requirements and standards in the field. Satisfactory academic progress also involves maintaining the standards of academic and professional integrity expected in a particular discipline or program. Failure to maintain these standards may result in termination of the student's admission to a graduate degree program.

A UNLV graduate student who has been dismissed for academic reasons is not eligible for admission or re-entry. The student must petition the Graduate College 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 approval of the academic dean offering the course is required. Deadlines for an administrative drop are the same as for a drop initiated by the student and are based on the date received at the Registrar's Office. The student will be notified by the final grade report.

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 pagers, 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. The instructor must record the circumstances. The approval of the dean of the college offering the course is required. Before a decision, the dean will consult with the student and other parties as appropriate.

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

Change of Address

Any change of address should be reported immediately to the Registrar's Office and the Graduate College. 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.

Appeals and Procedures

Appeals are to request reconsideration of a course grade, alleged unfair practice, and relief or waiver from a UNLV and/or Graduate College policy or requirement. Appeals must be filed with the Graduate College Office (FDH 3 09) in a timely manner. The Graduate College must receive grade appeals within 60 calendar days from the last day of the term/semester in question. 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. Each appeal is reviewed individually and a decision will be based on the merits and documentation provided.

It is the student's responsibility to provide a clear and concisely written statement of the appeal and to provide all relevant documentation to be reviewed. Written 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.

Advisors and departments may have varying methods of processing appeals. Your department should be contacted for specific policies and procedures. The Graduate College Graduate Faculty and Student Issues Committee is the designated College Committee to hear certain graduate student and faculty appeals and is composed of graduate faculty a graduate student representative.

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. Use software in the lab not owned by UNLV unless the student is the legally licensed owner.
11. Continue to use a computer account after withdrawing from the class for which it was obtained.
12. 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.

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.

Degree Progression Policies & Procedures

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. At any time after admission, a student may request a change of advisor and, upon departmental recommendation and Graduate College approval, the advisor will be changed.

The Advisory Committee

The advisory committee is responsible for guiding the student through the graduate program, assisting with the thesis or dissertation (if required), 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. All members of the committee should have expertise in the student's area of concentration. Generally, four Graduate Faculty members comprise an advisory committee: three from the student's department and one graduate faculty member from another department to serve as the Graduate College representative. One of the three graduate faculty members from the department serves as the student's advisor and committee chair. The Graduate College must approve the Graduate College representative suggested by the student and advisor to serve on the committee. Occasionally, it is permissible for an additional graduate faculty member(s) to be placed on the committee. This exception requires the approval of the Graduate Dean. Master's and doctoral students must submit the Appointment of Advisory Committee form to the Graduate College before establishing the degree program.

The Degree Program

Students, with their advisor and advisory committee, must prepare a proposed graduate degree program. 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, Graduate College, and university. The degree program requires the approvals of the student, advisor, the graduate coordinator, the appropriate academic dean, and the Graduate Dean.

For master's students, the proposed graduate degree program must be submitted to the Graduate College prior to students completing 16 credit hours of work toward the degree. If students request that 12 or more credit hours taken prior to admission be considered for use toward the degree, the program must be submitted to the Graduate College by the sixth week of the first semester of enrollment. Doctoral students must submit the proposed graduate degree program by the end of the third semester of enrollment. By recommendation of a student's department, limited changes in the degree program may be made with Graduate College approval.

Final Research/Creative Documents

The most important component of graduate education is the student's culminating experience. This generally takes the form a final scholarly research project, a professional paper, a course, an exam and sometimes a defense. The culminating experience demonstrates the student's mastery of their research, scholarship, creative abilities, and/or written communication skills in the chosen discipline. The final document is intended to benefit the student, the academic discipline or profession, and sometimes, society.

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 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. The Graduate College requires students working on a final research or creative document to register for three semester hours of credit each semester (excluding summer) until the document has been completed and has been given final approval. Students should contact the department to determine which document is required to complete their degree program.

Thesis and Dissertation

Some departments require a thesis, or offer the option of a thesis, for the master's degree. All academic 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, footNote: 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 are 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 given. 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 final typing. The completed, unbound work must be resubmitted to the committee at least one week prior to the final examination. The Graduate College must approve all theses and dissertations for final electronic submission. It is recommended that an initial format check be performed by the Graduate College by the eighth week of the semester the student intends to graduate. Upon approval, the thesis or dissertation must be submitted electronically to the Graduate College 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. The Graduate Dean only can 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 registration requirement. If the petition is approved, the advisor and Graduate Dean along with the student will determine the requirements for completion of the work.

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 in the Graduate College 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 for detailed guidelines.

Graduate Program Examinations

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 may require doctoral students to take a qualifying examination as part of the admission screening process or for diagnostic purposes shortly after admission. The examination may be written, oral, or both.

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 before advancing to candidacy. The examination is intended to test the student's knowledge of the area of specialization and may be written, oral, or both at the discretion of the department. If the examination is written, members of the advisory committee may submit questions, all must read the questions in advance, and all must read and evaluate the student's answers. If oral, all members of the advisory committee must be present and may question the student.

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. 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. The student must wait at least three months before taking the second examination. The advisory committee must provide formal documentation to the student clearly indicating its decision.

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. It may be conducted before that term only with the Graduate Dean's permission. 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 to university graduate faculty and a closed deliberation and vote by the advisory committee. The oral presentation will be open to UNLV Graduate Faculty, graduate students, relevant administrators, and invited guests. The invited guests must be approved by the advisory committee chair prior to the defense.

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.

The Graduate College must be notified not less than two weeks in advance of the examination. A public announcement regarding an oral defense must be made to the appropriate department's graduate faculty a minimum of seven (7) days prior to the oral defense.

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 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. The student must wait at least three months before taking the second examination. 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 the second examination. The Graduate College will not approve third examination requests.

Advancement to Candidacy

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 the comprehensive examination, and completing the dissertation prospectus. The date of advancement is recorded on the students' official UNLV transcript.

Graduation Procedures

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 available for downloading on the Graduate College website. The application form must be signed and returned to the Graduate College 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 including degree program, and if required the prospectus approval, appointment of advisory committee, and for doctoral students the advancement to candidacy form. If students do not complete the degree requirements in the term anticipated, it is expected that they will do so in the next regular term (summer excluded). A new application for graduation must be filed, and an additional diploma fee will be charged. In addition, students must be enrolled in a minimum of 3 credits during the term they apply for and expect to graduate.

Granting of Degrees

Degrees are awarded three times a year in May, December, and August. Students must be enrolled in a minimum of 3 credits during the term they intend to graduate. When students apply for graduation, the Graduate College reviews the degree program. The Graduate Dean certifies that they 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.

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.

Graduate Tuition and Fees*

*The fees listed below are applicable to Fall 2009 and Spring 2010.

| | |
|---|--|
| Graduate Per Credit Hour Fee | \$217.25 |
| Non-Resident Graduate Fees: | |
| 1-6 credits | \$457.25 per credit hour |
| 7 or more credits | \$6170.00 per semester +\$217.75 graduate per credit hour fee |
| Good Neighbor Graduate Fee | \$457.25 per credit hour |
| Other Fees | |
| Graduate and Professional Student Association | \$18.00 per semester |
| International Education | \$2.00 per semester |
| Rebel Recycling | \$1.00 per semester |
| Student Health | \$70.00 per semester |
| Technology | \$4.00 per credit hour |
| Student Life Facilities | \$173.00 per semester for 4 or more credits |
| International Student (international students only) | \$145.00 per semester |
| Integrate | \$3.00 per credit |
| New Graduate Student Orientation | \$35.00 |

Nonresident Tuition

Students who are not Nevada residents must pay a nonresident tuition fee in addition to the per credit hour fees per semester. Nonresident students taking less than seven credits should contact the Admissions Office for up-to-date fee information. Students eligible under Good Neighbor regulations pay a reduced nonresident tuition fee in addition to the per credit hour registration fee per semester.

Audit Fee

The fee for audit is the same as the fee for registering for credit. The equivalent credits of an audit course are considered in determining if the student is assessed out-of-state tuition.

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. 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.

Good Neighbor Regulations for Reduced Nonresident Tuition

Students who claim residence for at least 12 months in a qualifying Arizona or California county, or graduates from a high school or community college in a qualifying Arizona or California county may be eligible to attend the university at a reduced tuition cost. Those claiming residency for 12 months must have maintained legal bona fide residence for

at least 12 consecutive months prior to the first day of the semester in which enrollment is sought. Applications are available online or in the Graduate College. Requests for Good Neighbor status must be filed by the close of late registration for the semester in which the student has applied for admission. Any student who enrolls under this policy shall not be eligible for reclassification as a resident student unless the student has subsequently enrolled as a non-Good Neighbor nonresident for the period of one year, or did not enroll in an Nevada System of Higher Education institution for at least 12 months immediately prior to the date of application for reclassification to resident student status.

Approved Good Neighbor Counties:

Alpine
El Dorado
Inyo
Lassen
Modoc
Mono
Nevada
Placer
Plumas
San Bernardino
Sierra Counties

Special Fees and Charges

An application fee of \$60 (domestic) is charged to any person applying for admission. It is not refundable or applicable to any other fee. International applicants must pay an additional \$15 evaluation fee (\$75.00 total). Special charges may be made according to current costs for the following:

- a. Courses requiring equipment, facilities or materials not available on the campus, i.e., golf and certain field courses.
 - b. Courses requiring use of high technology equipment, e.g., computer courses or health profession courses.
 - c. Private instruction in music and similar arts
 - d. Noncredit courses, conferences, workshops, postgraduate professional seminars and similar educational offerings.
 - e. Courses requiring field trips or travel.
 - f. Personal expenses incurred by students in connection with field trips.
 - g. Lab and computer usage fees.
3. The following fees are either assessed or identified at registration.
- a. A late registration fee of \$25 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 \$25 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.

- b. 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.
- c. A graduation fee of \$50 will be billed to the student's account after the application for graduation is filed in the Graduate College. If a student fails to meet graduation requirements after a diploma has been ordered, \$2.50 of the fee is forfeited.
- d. Late application for graduation, \$20.
- e. A fee of \$55 for Master Thesis publication and \$65 for Doctoral Dissertation publication will be billed to the student's account after the application for graduation is filed.

Student Health Fee

The Student Health program fees for Fall, Spring, and Summer semester classes are not to be confused with the voluntary Student Health Insurance plan. Program fees support various services offered by the Student Wellness Cluster.

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 or coordination of health needs for students; provides student counseling and psychological services; and includes the Jean Nidetch Women's Center.

Group Health and Accident Insurance Fee

The Student Health Insurance plan is available to students formally admitted and currently enrolled taking six or more undergraduate credits or graduate students taking three or more credit hours. This plan is not to be confused with the student health program fee that all registered students pay for fall, spring, and summer sessions.

The Student Health Insurance provides services beyond those available through the Student Health Center for eligible on and off campus medical services. You may sign up for the Student Health Insurance by picking up an enrollment packet at the Student Health Center or Bursar's Office prior to the beginning of Fall, Spring, and Summer sessions or by accessing the web.

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:
 - A. WITHIN THE FIRST WEEK OF INSTRUCTION.

100 percent credit of all fees.

B. AFTER THE FIRST WEEK OF THE INSTRUCTIONAL PERIOD OF A REGULAR TERM.

*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.

* 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:
 - A. Courses dropped prior to the first day of the instructional period will receive a 100 percent credit.
 - B. Courses dropped within the first 20 percent of the course period, as defined by Student Enrollment Services, will receive a 50 percent credit.
 - C. 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:
 - A. Induction of the student into the U.S. Armed Forces;
 - B. Death of a parent, spouse, child or legal guardian of the student; or
 - C. Death of a student.
 - D. 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.

Financial Assistance

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.

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 Graduate Student Financial Services at (702) 895-5569 and UNLV Student Financial Services, located in the Student Services Complex, at (702) 895-3424. The Graduate Student Financial Services office is located in the Graduate College on the 3rd floor of the Flora Dungan Humanities Building.

Federal Loan Programs

Federal Perkins Loans

A Federal Perkins loan is a low-interest (5 percent) loan available to graduate students that is made through the university. Actual award amounts depend on federal and institutional funding levels. Preference is given to those applicants who are attending at least half time and have the greatest financial need. The total amount awarded is determined by financial need.

Application must be made with the FAFSA, which must be mailed to the federal processing center by February 1. Priority is given to those with the greatest need whose

federal financial aid information is received by UNLV before the priority filing date.

Federal Direct Stafford Loans

Direct Stafford loans are low interest loans to assist you in paying for your college education. The interest rate is variable and set annually, not to exceed 8.25 percent. You may call Student Financial Services or contact the Federal Aid Information number at 1-800-433-3243 for the current interest rate. Your loans may assist you in meeting your tuition and or living expenses. You do not have to start repaying them until you drop below half-time enrollment, withdraw completely from school, or graduate.

There are two types of Stafford loans:

- a. The Federal Direct Subsidized Stafford Loan is based on financial need. Interest on this loan is paid by Federal taxpayers while you are in school attending at least half-time.
- b. The Federal Unsubsidized Loan is available to students regardless of financial need. You will be charged interest from the time the loan is disbursed until it is paid in full.

Graduate Assistantships

A number of state-supported and extramurally funded graduate assistantships are available. The most important regulations governing these positions are:

1. Applications must be sent to the department which you are seeking employment no later than March 1 proceeding 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.
2. Application forms are available from the Graduate College Office and on our website.
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.
4. Currently, 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 also 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 tuition waiver covers the full amount of out-of-state tuition. Tuition waiver amounts may vary or extramurally funded assistantships.
5. Graduate assistantships are not generally available during Summer Term. However, tuition waivers are available for Summer Term before and after a contract year has been completed. 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 at the time they begin their assistantships.
7. International students whose graduate assistantship includes instructional duties (lecture, discussion groups, laboratory supervision, tutoring) must have received a successful grade on the Test of Spoken English (TSE) prior to assuming these instructional duties.
8. Graduate assistants must carry a minimum of six semester hours of graduate credit per 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 normally prohibited from being employed for more than 10 hours per week beyond their assistantship.
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 commencement of classes both fall and spring semester. Exceptions to this statement may be negotiated at the time of employment; however, both parties must agree to the arrangement and approval must be obtained from the Chairperson, Academic Dean and Graduate Dean.
12. New graduate assistants are expected, as part of their contract obligation, to attend the Graduate Assistant Teacher Training and General Orientation Sessions that are offered at the beginning of each fall 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.
14. Offers of assistantships, whether state-supported or extramurally funded, are valid only if they come from the Graduate College Dean.

Graduate Scholarships and Fellowships

Updates on fellowship and scholarship information are available on the Graduate College website.

For New Students: McNair Post-Baccalaureate Scholarships

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.

To be considered, applicants must:

1. Have an undergraduate GPA of 3.0 and graduate standing status at the time the scholarship begins.
2. Enroll in a minimum of nine credit hours for two consecutive semesters.

For Current Students: The following fellowships and scholarships are only available to graduate students already admitted to the Graduate College.

President's Graduate Fellowships

The President's Graduate Fellowships are provided through funding from the UNLV Foundation as directed by UNLV's president for the research support of doctoral students. Up to three awards are given annually, each offering a fellowship package including a stipend, tuition (up to 12 credits), fees, and health benefit totaling \$24,000.

Nominees must:

- Be doctoral students working primarily on the dissertation.
- Have a minimum graduate GPA of 3.5.
- Hold full-time student status (at least nine graduate credits) in each semester of the fellowship year.

Nominations must be submitted through department chairs. (Only one letter of nomination may be submitted from each department.)

Barrick Graduate Fellowships

Barrick Graduate Fellowships were established by an endowment from philanthropist Marjorie Barrick. They are given to outstanding doctoral students who have demonstrated excellent scholarship during their graduate study at UNLV. Two awards are given, each offering a \$14,000 fellowship with full fees paid (up to 12 credits), including all out-of-state tuition, if applicable.

Applicants must:

- Be a doctoral-level student.
- Have completed at least 24 credits of doctoral study (at the time of application).
- Have a minimum graduate GPA of 3.5.
- Enroll as a full-time graduate student (at least nine graduate credits) in each semester of the fellowship year in order to devote maximum effort to doctoral study. Criteria for selection will also include demonstrated excellence in research.

Scholarships

Alumni Association Scholarships are awarded to outstanding master's students who received their undergraduate degrees from UNLV. Three awards are given, each offering a \$1,000 scholarship for the academic year.

Applicants must:

- Be a master's-level or specialist student.
- Have completed at least 12 credits of graduate study at UNLV (by the end of the current spring semester).
- Have minimum UNLV undergraduate and graduate GPAs of 3.5.
- Enroll in six or more graduate credits in each semester of the scholarship year.
- Hold an undergraduate degree from UNLV.

James F. Adams/GPSA Scholarships. 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-level students. Six awards are given, each offering a \$1,000 scholarship.

Applicants must:

- Be a master's-level or specialist student.
- Have completed at least 12 credits of graduate study at UNLV (by the end of the current spring semester).
- Have a minimum graduate GPA of 3.5.
- Enroll in six or more credits in each semester of the scholarship year.

Summer Session Scholarships are designed to enable summer study for doctoral students, however excellent master's and specialist's students may be considered. Ten awards are given, each offering a \$2,000 scholarship during the summer.

Applicants must:

- Have completed at least 12 credits of graduate study at UNLV (at the time of application).
- Have a minimum graduate GPA of 3.0.
- Enroll in six credits in any one or combination of summer sessions.

Criteria for selection will include summer plans for conducting dissertation or thesis research.

Employment

On-Campus Employment. Several campus departments and offices employ students in a variety of positions. These jobs can be viewed on the Student Financial Services 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 Student Financial 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.

College of Business

The College of Business 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 careers in the management of 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

Paul A. Jarley, Dean

(2007) Business; Ph.D., University of Wisconsin-Madison; MPP, University of Michigan Ann Arbor; BA, University of Michigan Ann Arbor.

Accounting

Chair

Tandy, Paulette R.

(1989), Associate Professor; B.S., Appalachian State University; MBA, Ph.D., Texas A&M; CPA, North Carolina

Graduate Coordinator

Charron, Kimberly

(1997), Associate Professor; B.S., Ph.D., University of Arizona; CMA.

Graduate Faculty

France, James

(2003), Lecturer, B.S., United States Air Force Academy; MBA, University of Colorado; M.S. University of Nevada Las Vegas.

McCaslin, Thomas E.

(1988), Associate Professor; B.B.A., University of Houston; M.A., D.B.A., University of Tennessee; CPA, Texas.

Messier, William F. Jr.

(2008), 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.

Moore, Charles T.

(1989), Professor; B.S., University of Arkansas at Little Rock; M.S., Ph.D., Louisiana State University; CPA, Texas.

Raschke, Robyn

(2007), Assistant Professor; B.B.A, M.ACC., University of Georgia; Ph.D., Arizona State University; CPA, Georgia.

Simon, Chad

(2008), Assistant Professor; B.S., M.ACC., Brigham Young University; Ph.D., University of Georgia.

Smith, Jason L.

(2008), Assistant Professor; B.S. M.ACC., Brigham Young University; Ph.D., University of Arizona; CPA, Colorado.

Swayze, James P.

(1990), Associate Professor; B.B.A., University of North Texas; M.S., Ph.D., University of Houston.

Vent, Glen A.

(1982), Associate Professor; B.S., MBA, Central State University; B.S., Washington State University; Ph.D., University of Arizona; CPA, Oklahoma.

Zimmerman, John

(1989), Associate Professor; B.S., Glassboro State College; M.S., Golden Gate University; J.D., Southwestern University School of Law; CPA, California and New Jersey.

Professors Emeriti

Baldwin, Duane E.

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

Bakay, Virginia H.

(1978-2000), Emeritus Associate Professor; B.B.A., Memphis State University; M.A., Ph.D., University of Alabama; C.P.A., Tennessee.

Milne, Ronald A.

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

The Master of Science in 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 in 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 in 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 M.S. in the Accounting program should satisfy these requirements.

Accounting M.S.

Admission Requirements

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

1. A bachelor's degree from an accredited college or university. A minimum GPA of 3.00 or higher on a 4.00 scale.
2. 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.
3. 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).
4. Compliance with the Graduate College admission standards.

Degree Requirements

The student and the department graduate program coordinator will design each degree program. Students seeking a Master of Science in Accounting must comply with all general university requirements as outlined in the Graduate Catalog. In addition, the following specific requirements must be satisfied.

Track I: Students Holding a Baccalaureate in Accounting

All students must complete a minimum of 30 graduate credit hours, including at least 24 credit hours in 700-level courses. These courses must include the following:

1. A minimum of 18 graduate credit hours in accounting, 15 of which must be at the 700 level.
2. A minimum of nine graduate credit hours outside the accounting discipline. These courses must be beyond the usual College of Business Core.

Track II: Students Holding a Non-Accounting Baccalaureate

All students must complete a minimum of 36 graduate credit hours, including at least 24 credit hours in 700-level courses. These courses must include the following:

1. A minimum of 18 graduate credit hours in accounting, 15 of which must be at the 700 level.
2. ACC 602 Financial Reporting II and ACC 670 Auditing and Assurance services
3. A minimum of nine graduate credit hours outside the accounting discipline. These courses must be beyond the usual College of Business Core.

A student who holds a bachelor's degree in a non-accounting field may also have to satisfy the following background core requirement.

ACC 600 - Accounting Environment
ACC 601 - Financial Reporting I
609 - Accounting Information Systems
ACC 610 - Federal Taxation
ACC 700 - Financial and Managerial Accounting
Or
MBA 709 - Accounting for Managers
BLW 674 - Business Law II
MBA 711 - Managerial Finance

Some or all of the background business core may be completed before admission into the M.S. program.

Program Modifications

Some or all of the background business core may be completed before admission into the M.S. program. The Graduate Coordinator must approve exceptions or modifications of above program and requirements.

Certificate Programs in Accounting

Graduate and Advanced Graduate Certificates in Accounting

The certificates are 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 Accounting program. This Graduate Certificate 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.

Graduate Certificate in Accounting

Admission Requirements

Admission requirements include an undergraduate degree with a 2.75 GPA or higher and successful completion of two undergraduate accounting courses (ACC201 Introduction to Financial Accounting or equivalent and ACC202 Introduction to Managerial Accounting or equivalent).

Certificate Requirements

The program consists of six graduate classes currently offered by the UNLV Department of Accounting. All certificate students will take the core accounting 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

Deviations to these six courses may be approved by the Graduate Coordinator.

Advanced Graduate Certificate in Accounting

Admission Requirements

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

If desired, upon successful completion of the Advanced Certificate in Accounting Program, students may apply for admittance into the the MS Accounting program. General Admission requirements for admission to the MS Accounting 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 Certificate in Accounting Program 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.

Certificate Requirements

The Advanced Certificate in Accounting Program is made up of accounting classes currently offered through the department. Program students will take five of the following courses (at least four of which must be at the 700 level):

ACC 605 - Cost Management and Control
ACC 606 - Auditing in the Gaming Industry
ACC 607 - Governmental and Not-for-Profit Accounting
ACC 612 - Fraud Examination
ACC 620 - Internal Auditing
ACC 701 - Federal Tax Topics
ACC 702 - Financial Reporting Topics
ACC 703 - Issues in Federal Taxation

ACC 705 - Research Methodology in Federal Taxation and Practice Before the IRS

ACC 706 - Auditing Theory and Applications

ACC 709 - Systems Theory and Applications

ACC 715 - Advanced Management Accounting

ACC 725 - Mergers, Acquisitions and Divestitures

ACC 740 - Taxation of Corporations and Shareholders

ACC 745 - Taxation of Partnerships

Course Descriptions

ACC 600 - Accounting Environment

ACC 601 - Financial Reporting I

ACC 602 - Financial Reporting II

ACC 605 - Cost Management and Control

ACC 606 - Auditing in the Gaming Industry

ACC 607 - Governmental and Not-for-Profit Accounting

ACC 610 - Federal Taxation

ACC 612 - Fraud Examination

ACC 620 - Internal Auditing

ACC 650 - International Accounting

ACC 670 - Auditing and Assurance Services

BLW 650 - Law of the Internet

BLW 674 - Business Law II

Note: Graduate credit may be obtained for courses designated 600 or above. A full description of the courses listed above may be found in the UNLV Undergraduate Catalog under the corresponding 400 number. Credit at the 600-level normally requires additional work.

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. 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 Methodology in Federal Taxation and Practice Before the IRS

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

Explores contemporary issues facing management accountants through readings and case studies. Emphasis will be placed on the topics of financial leadership, ethics and strategic decision making. **Prerequisites:** Consent of instructor.

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 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. May be repeated to a maximum of six credits. **Prerequisites:** ACC 402 or ACC 602 or consent of instructor.

ACC 791 - Professional Paper

Credits 3

Business Administration

Director of MBA Programs

McCurdy, Gordon W.

(2009), B.A., Dartmouth; M.Phil., University of Cambridge, England, M.B.A. Yale School of Management.

Graduate Faculty

Aalberts, Robert J.

(1991), Leid Professor; B.A., Bemidji State University; M.A., University of Missouri; J.D., Loyola University.

Alder, G. Stoney

(2002), Assistant Professor, B.S., University of Utah; MBA, Brigham Young University; Ph.D. University of Colorado.

Arend, Richard J.

(2001), Assistant Professor: B.A., University of British Columbia; M.A., Ph.D., York University.

- Chang, Saeyoung
(1999), Associate Professor; B. Commerce, University of Calgary; MBA, Indiana University; Ph.D., Ohio State University.
- Chatfield, Robert E.
(1988), Professor; B.A., Eastern Nazarene College; M. S., Ph.D., Purdue University.
- Choi, Seungmook
(1991), Professor; B.A., Korea University; M.A., Ph.D., University of Texas, Austin.
- Clauret, Terrence M.
(1988), Professor; B.A., Stonehill College; Ph.D., Washington State University.
- Corney, William J.
(1976), Professor; B.S.E.E., University of Michigan; MBA, Eastern Michigan University; D.B.A., Arizona State University.
- Cross, James
(1989), Associate Professor; B.S., MBA, Ph.D., University of Minnesota.
- Gilbert, Joseph T.
(1991), Associate Professor; B.A., M.A., St. Louis University; Ph.D., University of Southern California.
- Guidice, Rebecca
(2004), Assistant Professor, B.A., Whitworth College; MBA, Eastern Washington University; Ph.D., Washington State University.
- Hames, David S.
(1989), Associate Professor; B.A., Albion College; M.A., Michigan State University; Ph.D., University of North Carolina, Chapel Hill.
- Hoyt, Richard W.
(1973), Professor; B.A., MBA, California State University, Long Beach; Ph.D., University of Arkansas.
- Hsu, Chin-Chun
(2003), Assistant Professor; B.S., Tamking University; MBA, California State University, San Bernardino; Ph.D. Candidate, Saint Louis University.
- Jameson, Melvin H.
(1989), Professor; S.B., Massachusetts Institute of Technology; M.A., Ph.D., University of California, Berkeley.
- LaTour, Michael S.
(2004), Professor; B.B.A., MBA, Boise State University; Ph.D., University of Mississippi.
- Leong, Keong
(2001), Professor, B.S., University of Malaysia; M.B.A., University of South Carolina; Ph.D., University of South Carolina.
- McAllister, Daniel W.
(1982), Associate Professor; B.S., MBA, University of Utah; Ph.D., University of Washington.
- Mejza, Michael
(1998), Associate Professor; B.A., University of Connecticut; MBA, Ph.D., University of Maryland.
- Miller, Alan N.
(1978), Professor; B.A., University of New Hampshire; B.A., Temple University; MBA, Syracuse University; M.Phil., Ph.D., City University of New York.
- Naylor, Gillian
(1996), Associate Professor; B.A., Washington State University; MBA, Eastern Washington State University; Ph.D., University of Arizona.
- Nil, Alexander
(1999), Associate Professor; M.A., Ludwig-Maximilian University; D.B.A., Ph.D., University of Innsbruck.
- Phelan, Steven
(2003), Assistant Professor, B.S., University of Melbourne; Ph.D. (ABD), Australian Graduate School of Management; M.B.A., Monash University, Ph.D., La Trobe University.
- Poon, Percy
(1989), Associate Professor; Honors Diploma, Hong Kong Baptist College; MBA, Southwest Texas State University; Ph.D., Louisiana State University.
- Richards, Clinton H.
(1977), Associate Professor; B.S., MBA, Ph.D., University of Kansas.
- Runge, Janet
(1997), Assistant Professor; B.P.A., Loyola University; MBA, University of New Orleans; Ph.D., Louisiana State University.
- Schibrowsky, John
(1988), Professor; B.S., University of Wisconsin-Superior; MBA, University of Northern Iowa; Ph.D., University of Wisconsin-Madison.
- Seale, Darryl Anthony
(1999), Associate Professor; B.S., California State University, Chico; MBA, Pennsylvania State University; M.A., Ph.D., University of Arizona.
- Sullivan Michael J.
(1991), Professor; B.S., St. John Fisher College; MBA, University of Florida; Ph.D., Florida State University.
- Tan, Keah-Choon
(1998), Associate Professor; B.S., MBA, University of South Alabama; Ph.D., Michigan State University.
- Thistle, Paul D.
(1999), Professor; B.B.A., University of Portland; M.S., Ph.D., Texas A & M University.
- Wisner, Joel D.
(1991), Professor; B.S., New Mexico State University; MBA, West Texas State University; Ph.D., Arizona State University.
- Professors Emeriti**
- Dandurand, Lawrence
(1973), Professor; B.S.B., University of Minnesota; M.A., Mankato State College; Ph.D., University of Missouri.
- Newbould, Gerald D.

(1988), Professor; B.Com., University of Birmingham; M.A., University of Sheffield; Ph.D., University of Liverpool.

Pinney, J. Kent

(1973-1998), Emeritus Professor; B.A., University of Utah; MBA, D.B.A., Indiana University.

Seidman, Lorne H.

(1969-2000), Emeritus Professor; B.S.C., Ohio University; J.D., Case Western Reserve University.

Yantis, Betty

(1975-1998), Emeritus Professor; B.S.C.E., M.S.C.E., M.A., Ph.D., University of Arkansas.

The Master of Business Administration

The MBA programs at the College of Business at UNLV are designed for those who seek global career and leadership opportunities. Today's business leaders face challenges which are quite different from those of a generation ago. Faced with a global competitive business environment and supported by new information and communication technologies, organizational structures are changing. Success in the new 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, value chain management approach, international business culture, technology management, integration of curriculum, 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 and teaching, to increased vertical and horizontal integration of course material, and to team teaching and 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, 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 value chain management. Curriculum allows students to think actively about connections among disciplines by emphasizing key

functional areas in integrative course modules and team teaching across disciplines.

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.

A 15-hour concentration with up to six hours of electives provides the opportunity of in-depth specialization and a greater flexibility in tailoring programs of study to each student's needs and interests.

Graduate Non-Degree Seeking Students

Students who have begun the admission process for the MBA program may be considered to take courses as a non-degree seeking student before being admitted to the program. 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 Associate Dean for Academic Affairs before enrolling in graduate courses offered by the College of Business. 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.

Transfer Credit and Prior Course Work

A maximum of fifteen credit hours of MBA courses taken prior to admission to the program may be applied towards the MBA degree requirement. This includes all courses taken as a fully admitted graduate student at an AACSB accredited business school or as a non-admitted student at UNLV. Graduate work below a B (3.00) or work taken pass/fail is not transferable toward the MBA degree. Requests for transfer course work must be evaluated and approved by the Associate Dean for Academic Affairs after the student is officially admitted.

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. Prior approval from the Associate Dean for Academic Affairs and Graduate College is required if a student plans to take a leave of absence for a semester.

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 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.

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

The University of Nevada, Las Vegas School of Dental Medicine and the College of Business 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 MBA degree at UNLV requires 48 credit hours. The Dental degree requires 195 credit hours. Under the dual degree program fifteen credit hours of dental courses are accepted towards the MBA degree.

Admission Requirements

Applicants to the DMD/MBA program must submit formal applications for admission to both the School of Dental Medicine and to the College of Business. 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 College of Business 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 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.

Application Process

See application process under the MBA and School of Dental Medicine. In addition, include a letter of intent indicating you are applying for the dual DMD/MBA degree.

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 33 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 College of Business 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 College of Business.
8. The College of Business 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.

MBA Core Required Courses - Total Credits: 33

MBA 702 - Statistical Analysis

MBA 706 - Law, Regulations and Ethical Issues

MBA 707 - Organizational Behavior

MBA 709 - Accounting for Managers

MBA 710 - Applied Economic Analysis

MBA 711 - Managerial Finance

MBA 715 - Market Opportunity Analysis

MBA 720 - Supply Chain Management

MBA 730 - Information Systems for Management

MBA 735 - International Business and Cross Cultural Perspectives

MBA 795 - Strategy Formation Processes (to be completed during student's Final semester.)

Total Dental Course Credit Accepted: 15

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

The dual MBA and M.S. in Hotel Administration program of 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 M.S. in 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 M.S. in Hotel Administration.

Admission Requirements

The admission requirements for the dual degree program are the same as those stated under the M.B.A. and M.S. in Hotel Administration programs. Admission requires that applicants submit evidence of at least one year of full-time experience in management in the hospitality industry or three years of consecutive full time entry-level experience in hospitality.

Application Process

See the Application Process Section under the M.B.A. and M.S. in Hotel Administration programs. Applicants must be admitted to both the M.B.A. and Master of Science in Hotel Administration programs to qualify for either dual degree program.

Degree Requirements

Students must be admitted to both the M.B.A. and M.S. in Hotel Administration programs with graduate standing. A student must successfully complete the 33 credit hours of the M.B.A. required core courses and the 21 credits hours of required Hotel Administration courses, consisting of eighteen credits of required courses and one three credit elective course (600/700 level). Students must complete an initial nine credit course load in the M.B.A. program (i.e. MBA 702, MBA 709 and MBA 710) before enrolling in any Hotel Administration courses. Required courses are: M.B.A. required courses are:

A. MBA Core Courses - Total Credits: 33

MBA 702 - Statistical Analysis
MBA 706 - Law, Regulations and Ethical Issues
MBA 707 - Organizational Behavior
MBA 709 - Accounting for Managers
MBA 711 - Managerial Finance
MBA 715 - Market Opportunity Analysis
MBA 720 - Supply Chain Management
MBA 730 - Information Systems for Management
MBA 735 - International Business and Cross Cultural Perspectives
MBA 795 - Strategy Formation Processes

B. Hotel Administration M.S. Courses (dual M.B.A. degree) - Total Credits: 21

HOA 703 - Human Resources Management in the Hospitality Industry
or
HOA 716 - Principles and Practices in Hotel Management
or

HOA 718 - Principles of Casino and Gaming Management
or
HOA 720 - Principles and Practices in Food Service Management
HOA 735 - Research Methodology
HOA 760 - Research Seminar in Hotel Administration
or
HOA 761 - Research Seminar in Food Service Administration
or
HOA 763 - Research Seminar In Casino and Gaming Management
HOA 751 - Hospitality Service Management
HOA Elective (600- or 700-level)

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

The William S. Boyd School of Law and the College of Business 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 MBA degree at UNLV requires 48 credit hours. The traditional Law degree requires 89 credit hours. The JD/MBA dual degree requires 80 Law credit hours and 33 MBA credit hours. Under the dual degree program 15 credit hours of Law courses are accepted towards the MBA degree and nine credit hours of MBA courses are accepted towards the JD degree.

Admission Requirements

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 College of Business-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.

Application Process

See the application process under the MBA and School of Law programs. In addition, include a letter of intent indicating you are applying for the dual JD/MBA degree.

Degree Requirements

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 33 credit hours of the MBA required course work.

Furthermore:

1. 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.
2. 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.
3. 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.
4. JD/MBA candidates must comply with the requirements for all students regarding the maximum amount of time for completion of a degree program. The maximum period law students to complete requirements for the JD degree is seven years. The Graduate College imposes a six-year time limit for completion of a master's program.
5. JD/MBA candidates may not receive credit for taking courses outside their degree program without prior approval.
6. 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 College of Business will be computed based solely on classes taken as business classes.
7. Students in the JD/MBA program must remain in good standing at both JD and MBA programs.
8. 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 College of Business.
9. 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.

MBA Core Required Courses - Total Credits: 33*

MBA 702 - Statistical Analysis (prerequisite for all other MBA courses)

MBA 706 - Law, Regulations and Ethical Issues

MBA 707 - Organizational Behavior

MBA 709 - Accounting for Managers (prerequisite for all other MBA courses)

MBA 710 - Applied Economic Analysis (prerequisite for all other MBA courses)

MBA 711 - Managerial Finance (prerequisite for all other MBA courses)

MBA 715 - Market Opportunity Analysis

MBA 720 - Supply Chain Management

MBA 730 - Information Systems for Management

MBA 735 - International Business and Cross Cultural Perspectives

MBA 795 - Strategy Formation Processes (to be completed during student's final semester)

Boyd School of Law Dual Requirements:

Required: 44 credits

Directed Electives: 18 credits

Free Electives: 18 credits

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

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.

Program Overview

The program includes 57-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 33 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.

Admission Requirements

The admission requirements for the dual degree program are the same as those stated under the regular MBA and M.S. in Management Information Systems programs. Applicants must be admitted to both the MBA and Master of Science in Management Information Systems programs. Candidates have to apply to both, the MBA program and the MS MIS program and meet the respective application requirements.

Degree Requirements

Completion of the dual MBA and MS MIS degree includes:

1. Completion of a minimum of 33 credit hours of MBA core courses and a minimum of 24 credits of MS in 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.

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.

The following courses are required for the dual degree:

MBA Core Courses - Total Credits: 33

MBA 702 - Statistical Analysis

MBA 706 - Law, Regulations and Ethical Issues

MBA 707 - Organizational Behavior

MBA 709 - Accounting for Managers

MBA 710 - Applied Economic Analysis

MBA 711 - Managerial Finance

MBA 715 - Market Opportunity Analysis

MBA 720 - Supply Chain Management

MBA 730 - Information Systems for Management

MBA 735 - International Business and Cross Cultural Perspectives

MBA 795 - Strategy Formation Processes

M.S. in Management Information Systems Courses - Total 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

Business Administration Executive E.M.B.A.

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 will be placed in a collaborative, proactive, integrative, and team oriented learning environment.

The students will go through the program as a cohort, with the course scheduling being set at the beginning of the cohort's program. Students will be able to complete the program in 18 months. Classes will meet on weekends. All students will complete the program as a group. This will provide a unique cohort experience that will enhance teamwork throughout the program.

Admission Requirements

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 3.00 on the four-point scale.
 3. Submission of GMAT score, taken within the last five years. Applicants with a grade point average below 3.00 must have extensive meaningful work experience and an acceptable score on the GMAT for acceptance to the program, as determined by the Director of MBA Programs.
 4. In addition, international applicants must submit a satisfactory TOEFL score (minimum 550) and financial certification.
- The above documents are to be mailed to:
Director of MBA Programs
College of Business
University of Nevada, Las Vegas
4505 S. Maryland Parkway • Box 456001
Las Vegas, NV 89154-6001
5. Evidence of at least seven years of full-time work experience, of which at least the last three years must have been in a key decision-making role.
 6. Three 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.
 7. Resume.
 8. Self-evaluation. The two-page, double-spaced self-evaluation should include a description of significant contributions you have made to your organization and a well-articulated career plan.
 9. A personal interview.

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.

The cost of the program for admission in the academic year 2009-11 is \$42,000. This includes a \$1,000 nonrefundable deposit, due upon acceptance to the EMBA program, a first installment of \$13,000 and two additional installments of \$14,000. Each installment will be due two weeks prior to the first class meeting of the 3 terms. Request for withdrawal from the EMBA program must be made one week prior to the start of each term and the refund amount will only reflect the forthcoming term for which the request was made. No refund for withdrawal will be made thereafter. The \$42,000 fee will cover all tuition and fees, textbooks and other course material, software needs, travel for international trip, parking, all meals and refreshments during class meetings, and other activities associated with the program.

Degree Requirements

Students must be admitted to the EMBA program with graduate standing. The candidates must successfully complete the 43 credit hours of required EMBA courses. 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.

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 MBA Programs. 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 MBA Programs in the College of Business and is discouraged. Substitution will be possible only under the most unusual circumstances. In no case may more than two courses be substituted.

The content of the courses is customized to meet the need of executives. Classes will generally meet on Friday and Saturday every other weekend. Classes will be 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.

EMBA Curriculum - Total Credits: 43

Each cohort will take an international trip. The "International Seminar" will be tied to the international trip and will require students to learn about the culture and business practices of the countries to be visited.

EMBA 701 - Teamwork and Management Effectiveness
EMBA 702 - Laws, Regulations and Ethics
EMBA 703 - Microeconomic Analysis for Business Decision Making
EMBA 704 - Information Systems 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 720 - International Seminar
EMBA 723 - Applied Strategic Marketing
EMBA 725 - Strategy Execution

Business Administration M.B.A.

Admission Requirements

The College of Business 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.

The Application Process

Admission to the graduate business program is conducted by the 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.

The MBA Program requires the following documentation.

1. Official results of the GMAT test; the report is to be sent directly from the GMAT testing center.
2. A copy of the applicant's current resume.
3. Two letters of recommendation 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.

With the exception of the GMAT, required materials listed above are to be uploaded into the Graduate College application. The MBA program does not require a separate application.

Admission requirements include:

1. Evidence (official transcript) of an undergraduate Grade Point Average (GPA) of 3.00, or higher, on a four-point scale.
2. 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
1600 Tysons Blvd. Ste. 1400
McLean, VA 22102
(703) 245-4285
website: www.mba.com
e-mail: webmaster@gmac.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 provided that the result of the GPA times 200 plus the GMAT score is not less than 1,150. A graduate provisional student must complete nine credit hours of required course work. 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 College of Business 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.

It is the applicant's responsibility to provide satisfactory evidence of these skills. Prior to their first semester in the program, all admitted students are required to attend a noncredit orientation and skill refresher. This will include sessions on team building, research facilities, etc.

Accelerated MBA Program

MBA applicants may be considered for the accelerated MBA program. To be considered for the accelerated MBA program a candidate must meet each of the following requirements:

1. GMAT score greater than or equal to 600 (based upon the GMAT score used for admittance to the MBA Program)
2. GMAT verbal score greater than or equal to the 50th percentile
3. GMAT quantitative score greater than or equal to the 50th percentile
4. A business undergraduate degree or an undergraduate degree with a business minor from an AACSB accredited university with a minimum grade point average of 3.0

If the above requirements are met, then it is possible to waive some of the core classes from the MBA curriculum. Classes can be waived based upon undergraduate business classes taken if your business degree was granted in the last five years and a grade of B or better was earned in the relevant class. A maximum of 6 classes (18 credit hours) can be waived. A student must take a minimum of 30 credit hours of business classes at UNLV to earn a MBA degree. All class waivers must be approved by the Director of MBA Programs, who will consult with relevant department chairs as necessary.

The following classes can possibly be waived based upon successful completion of the undergraduate classes listed in parenthesis or their equivalents:

MBA 702 - Statistical Analysis (ECO 262 or equivalent)
MBA 706 - Law, Regulations and Ethical Issues (class or classes in business law and ethical issues in business)
MBA 707 - Organizational Behavior (MGT 301 or equivalent)
MBA 709 - Accounting for Managers (ACC 201 and ACC 202 or equivalents)

MBA 710 - Applied Economic Analysis (ECO 302 or equivalent)
MBA 711 - Managerial Finance (FIN 301 or equivalent)
MBA 715 - Market Opportunity Analysis (MKT 301 or equivalent)
MBA 720 - Supply Chain Management (ECO 302 or equivalent)
MBA 730 - Information Systems for Management (IS 301 or equivalent)
MBA 735 - International Business and Cross Cultural Perspectives (A general International Business class)

Degree Requirement

The MBA degree requires a minimum of 48 credit hours of approved course work, including the completion of the 30 credit hours of the Core Courses, three credit hours of Capstone, and 15 credit hours in the student's concentration area.

Up to 15 graduate credit hours may be transferred if taken at AACSB accredited business schools within the last 5 years. This transfer credit is limited by the requirement that a student must take a minimum of 30 credit hours of graduate classes from UNLV's College of Business to earn a MBA degree.

1. Core Courses - Total Credits: 30

All core courses have **Prerequisite:** of admission to the MBA program. All core courses are sequenced so students may acquire the tools and skill they need for success in their concentration areas.

MBA 702 - Statistical Analysis
MBA 706 - Law, Regulations and Ethical Issues
MBA 707 - Organizational Behavior
MBA 709 - Accounting for Managers
MBA 710 - Applied Economic Analysis
MBA 711 - Managerial Finance
MBA 715 - Market Opportunity Analysis
MBA 720 - Supply Chain Management
MBA 730 - Information Systems for Management
MBA 735 - International Business and Cross Cultural Perspectives

2. Concentration - Total Credits: 15

The 9-12 hours, depending on the concentration, of required courses must be taken in the concentration area of the student's choice. The remaining 3-6 credit hours can be taken from the list of the elective courses or from the remaining two concentration courses. The concentration areas and all related course work require prior approval of the Associate Dean for Academic Affairs.

3. Capstone Course - Total Credits: 3

MBA 795 - Strategy Formation Processes This course is completed in the student's final semester.

4. Internship - Total Credits: 3

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

Description of Concentrations

Finance

This concentration provides the student with a working knowledge of financial management in solving the practical financial problems encountered in the management of the financial affairs of the firm. Typically, it involves decision problems associated with working capital, capital structure, capital budgeting, mergers, acquisitions and corporate restructuring. It also seeks to expand the student's understanding of the current conceptual framework of investments in financial assets including stocks, bonds and derivative securities.

Required Courses:

FIN 708 - Advance Corporate Finance
FIN 710 - Investment Management
FIN 712 - Financial Markets and Institutions
Plus two Elective Courses

New Venture Management

This concentration is designed to prepare students for the prospects of managing new ventures. Courses required for this concentration develop student skills in the following areas critical to new venture success: opportunity creation recognition, evaluation and exploitation; resource gathering and leveraging through preemption, negotiation and incentivizing; and, management of uncertainties through intelligence gathering, planning and adaptation to change. Whether the student eventually becomes an independent entrepreneur or corporate project manager or venture capitalist, he or she will have a greater ability to address the challenges that contemporary businesses have in creating new value and sustaining it.

Required Courses:

MGT 709 - New Venture Creation
MGT 710 - Managing Entrepreneurial Organizations
MGT 711 - Seminar in Negotiation
Plus two Elective courses

Management Information Systems

This concentration is designed to prepare students for challenges and opportunities of information technology management. Courses for this concentration are developed to cover tools, concepts, and methodologies for preparing students to become effective MIS managers and be able to use the technology in innovative ways that create competitive advantage. The program will cover: computer

software as applied in business processes; systems analysis and design; database concepts; strategies for corporate information systems; information systems project management; social and economic impacts of information technology; data communications and networks; electronic commerce; and security. Pedagogy involves lectures, labs, discussions, and selected readings and cases.

Required Courses:

MIS 744 - Information Systems Planning & Strategy
MIS 746 - Information Systems Project Management
MIS 762 - Systems Analysis, Modeling and Design and either of
MIS 740 - Software Concepts
MIS 766 - Data Management
Plus one Elective Course

Elective Courses: FIN 715; MGT 710, 711, or 712;
MIS 752; MKT 737 or 757

Services Marketing

This concentration is designed to provide students with the skills and tools necessary to successfully market services, products, and ideas for profit and not-for-profit firms. The courses have been designed to provide students with state of the art information for marketing in today's changing environment. A marketing concentration can be valuable to a wide range of people including professional managers, not-for-profit employees, professionals, and small business owners. Key topics include: competitive advantage, segmentation, relationship development, and competitive positioning.

Required Courses:

MKT 711 - Strategic Marketing Management
MKT 720 - Customer Satisfaction and Service Quality Measurement
MKT 777 - Services Marketing
Plus two Elective Courses

Plus one Elective Course from the following list:

FIN 709 - Applied topics in Finance
FIN 715 - Portfolio Management
FIN 740 - Risk Management
MGT 712 - Change Management
MGT 787 - International Seminar
MIS 752 - Advanced Topics in MIS
MKT 737 - New Service and Product Development
MKT 757 - Strategic Database Marketing

Course Descriptions

Executive MBA

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 - Information Systems Theory and Practice

Credits 2

Introduces concepts of management information systems and decision support systems. Information technology applications for decision making and problem solving at the operational and corporate levels. **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 lend 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 3

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. **Prerequisites:** Admission to the Executive MBA Program and approval of the Dean's Office.

EMBA 717 - Negotiations and Conflict Resolution

Credits 2

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 2

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. **Prerequisites:** Admission to the Executive MBA Program and approval of the 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 - Strategy Execution

Credits 3

Once a strategy has been formulated, it must be executed. Introduces a broad array of skills and perspectives designed to assist strategy implementation, including simulation, project management, organization design, and change management. **Prerequisites:** EMBA 715

Master of Business Administration

MBA 702 - Statistical 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. **Prerequisites:** Admission to MBA Program or approval of the Director of MBA Programs.

MBA 706 - Law, Regulations and Ethical Issues

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.

Prerequisites: Admission to MBA Program or approval of the Director of MBA Programs.

MBA 707 - Organizational Behavior

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.

Prerequisites: Admission to MBA Program or approval of the Director of MBA Programs.

MBA 709 - 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. **Prerequisites:** Admission to MBA Program or approval of the Director of MBA Programs.

MBA 710 - 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. **Prerequisites:** Admission to MBA Program or approval of the Director of MBA Programs.

MBA 711 - Managerial Finance

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. **Prerequisites:** MBA 709, admission to M.B.A. program, or approval of the Director of MBA Programs.

MBA 715 - 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.

Prerequisites: Admission to the MBA program or approval of the Director of MBA Programs.

MBA 720 - Supply Chain Management**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. **Prerequisites:** MBA 702, 709, 710, 711 or approval of the Director of MBA Programs.

MBA 730 - Information Systems for Management**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.

Prerequisites: MBA 702, 709, 710, 711, or admission to the MSIS program or approval of the Director of MBA Programs

MBA 735 - International Business and Cross Cultural Perspectives**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 702, 709, 710, 711, or approval of the Director of MBA Programs.

MBA 741 - Internship**Credits 3**

Supervised practical experience with a participating local enterprise or government agency, culminating in a written report. **Prerequisites:** Completion of MBA Core Curriculum and approval of the Director of 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: MBA 702, 709, 710, 711 and approval of Associate Dean for Graduate Programs.

MBA 795 - Strategy Formation Processes**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 semester.

Marketing**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:** Completion of the MBA core or approval of the Director of MBA Programs.

MKT 720 - Customer Satisfaction and Service Quality Measurement**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:** Completion of the MBA core or approval of the Director of MBA Programs.

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:** Completion of the MBA core or approval of the Director of MBA Programs.

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: Completion of the MBA core or consent of the Director of MBA Programs.

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:** Completion of the MBA core curriculum or consent of the Director of MBA Programs.

Economics

Chair

Miller, Stephen M.

(2001), Professor, B.S., Purdue University; M.A., Ph.D., SUNY at Buffalo.

Graduate Coordinator

Chen, Lein-Lein

(1993), Professor; B.S., M.S., Florida International University; Ph.D., University of Miami.

Graduate Faculty

Assane, Djeto

(1991), Associate Professor; Economics: B.A. University of Abidjan; Ph.D. University of New Mexico.

Carroll, Thomas

(1986), Professor; A.B., Miami University; M.A., Ph.D., Syracuse University.

Daneshvary, Nasser

(1990), Professor; B.S., Ghazvin College of Economics and Social Science; M.A., Western Illinois University; Ph.D., University of Tennessee.

Eren, Ozkan

(2007), Assistant Professor; B.A., Marmara University; M.A., Ph.D., Southern Methodist University.

Malamud, Bernard

(1968), Professor; B.S.E.E., Polytechnic Institute of Brooklyn; M.S.I.A., Carnegie-Mellon University; Ph.D., New School for Social Research.

Riddel, Mary

(1999), Associate Professor; B.A., University of Colorado, Boulder; M.S., Ph.D., Colorado State University, Ft. Collins.

Robinson, William J.

(1980), Associate Professor; B.A., University of Northern Colorado; M.A., Ph.D., University of Colorado, Boulder.

Schlottmann, Alan

(2000), Professor; B.A., M.A., Ph.D., Washington University.

Schwer, R. Keith

(1986), Professor and Director, Center for Business & Economics Research; Professor; B.B.A, M.A., University of Oklahoma; Ph.D., University of Maryland.

Tra, Constant

(2007), Assistant Professor; B.A. California State University, Chico; M.S., Ph.D., University of Maryland.

Waddoups, C. Jeffrey

(1989), Associate Professor; B.A., Ph.D., University of Utah.

Wimmer, Bradley

(1998), Associate Professor; B.A., Coe College; Ph.D., University of Kentucky.

Professors Emeriti

Hoppe, Hans-Herman

(1986), Professor; M.A., Ph.D., Geothe-University, Frankfurt, West Germany.

Karstenson, Lewis

(1979), Associate Professor; B.A., Humboldt State College; M.A., Ph.D., Ohio University.

Ray, Clarence G.

(1971-2000), Emeritus Professor; B.S., College of Charleston; M.A., Ph.D., University of South Carolina.

Simmons, Andrew

(1960-1994), Emeritus Professor; B.S., University of London; M.A., Michigan State University; Ph.D., University of London.

White, William T.

(1967-1986), Emeritus Professor; B.S., University of Arizona; M.S., Columbia University; Ph.D., Georgetown University.

Economics M.A.

The Master of Arts degree in 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.

Admission Requirements

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. International students should check with the Graduate College for current deadlines. The Graduate College requires international students to complete the TOEFL with a minimum score of 550 (written) or 213 (computerized) or show comparable evidence of competence in English.

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. 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.

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.

Degree Requirements

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.

Elective course work to complete the thirty-hour requirement must include two additional courses in economics and may include up to two courses in a related discipline, subject to the approval of the graduate coordinator. The internship requirement may be waived by the department upon evidence of appropriate experience. As previously noted, all noneconomic electives must come from the same department and the student must meet the **Prerequisite:** for these courses.

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. A minimum 3.00 average is required to earn the Master of Arts degree.

To qualify for graduation, each student must present an empirical research paper or a thesis. The research paper will be presented to students and faculty at the department research seminar. The source of this paper is a project in the professional paper course (ECO 794). In the case of a thesis, the student will register for six hours of thesis credit in lieu of course work outside of economics and Professional Paper (ECO 794). (See Academic Policy section for detailed requirements concerning presentation of the thesis.) 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 the research paper in the summer.

Required Courses

Thirty semester credit hours must be completed, of which, at least 24 credits are taken in 700-level courses. Eighteen hours of required courses in economics include:

ECO 740 - Mathematical Economics
ECO 701 - Macroeconomic Theory
ECO 702 - Microeconomic Theory
ECO 770 - Econometrics I, Statistical Modeling
ECO 772 - Econometrics II
ECO 793 - Seminar in Economic Research

Course Descriptions

ECO 602 - Topics in Microeconomics

ECO 651 - Public Finance

ECO 655 - Economics of Industrial Organization

Note: Graduate credit may be obtained for courses designated 600 or above. A full description of the courses listed above may be found in the UNLV Undergraduate Catalog under the corresponding 400 number. Credit at the 600-level normally 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. **Corequisite:** 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. **Note:** 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. **Corequisite** 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. **Note:** 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

Note: 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 majors in both finance and real estate, as well as minors in finance, real estate, risk management and insurance, and business law. The finance discipline can be classified into three areas: corporate finance, investments, and finance markets and institutions. This business field is for students who want to understand the financial implications inherent in virtually any business decision. The real estate majors are exposed to both the theory and practice in real estate. Emphases are placed on investment analysis of real estate, financing issues of real estate, and real estate valuation.

We prepare our students in finance or real estate major for successful careers in corporate management, depository institutions, investment management, financial services, and real estate. 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.

Finance Graduate Certificate

The Finance Graduate Certification Program is 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.

Admission Requirements

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 Program Administrator.

If desired, upon successful completion of the Finance Certification Program, 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.

Certificate Requirements

The Finance Graduate Certificate Program is a 4 course, 12 credit hour program. The Finance Graduate Certification Program consists of one required class:

MBA 711 - Managerial Finance. With appropriate background the Certificate Student may substitute an elective Finance class for MBA 711. What qualifies as an appropriate background will be determined by the Department of Finance Certificate Program Administrator. An example of an appropriate background is having an undergraduate degree in Finance.

MBA 709 - Accounting for Managers and MBA 710 - Applied Economic Analysis are **Prerequisite:** for MBA 711 and can be waived with equivalent course work. Equivalent course work for MBA 711 - 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). Equivalent course work for MBA 710-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).

Program students then choose 3 of the available 700-level Finance classes. Currently, 5 classes are available:
FIN 708 - Advance Corporate Finance
FIN 710 - Investment Management
FIN 712 - Financial Markets and Institutions
FIN 715 - Portfolio Management Prerequisite: FIN 710
FIN 740 - Risk Management
Students must have a minimum of a 3.0 GPA in the Program to receive the Finance Graduate Certificate.

Course Descriptions

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 711

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

Our mission is to create an approach that blends research and teaching into a life-long process of advancement and learning for faculty, students, and community interests. This integration will foster the ongoing development of our course materials and teaching approaches thereby creating a generation of students not only prepared to be leaders, but also provided with challenging career paths and managerial opportunities. We will strive to maintain quality and flexibility in an evolving environment through a focus on leading change, globalization, managing technology, and entrepreneurship.

Graduate Certificate in Management

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.

Admission Requirements

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.

Certificate Requirements

The Graduate Certificate in Management (GCM) is a 5 course, 15 credit hour program, comprising:

MBA 706 - Law, Regulations and Ethical Issues

MBA 707 - Organizational Behavior

MGT 710 - Managing Entrepreneurial Organizations

MGT 711 - Seminar in Negotiation

MGT 712 - Change Management

There are no pre-requisites for MBA 706 and MBA 707, however, the remaining three courses require the completion of the MBA Core or admission to the Graduate Certificate in Management as a pre-requisite.

Students must have a minimum of a 3.0 GPA in the program to receive the Graduate Certificate in Management.

New Venture Management Graduate Certificate

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.

Admission Requirements

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 program, students may apply for admittance into the Business Administration M.B.A.. General admission requirements for the 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.

Certificate Requirements

The Graduate Certificate in New Venture Management (GCNVM) is a 5 course, 15 credit hour program, comprising:

MBA 715 - Market Opportunity Analysis
MKT 737 - New Service and Product Development
MGT 709 - New Venture Creation
MGT 710 - Managing Entrepreneurial Organizations
MGT 711 - Seminar in Negotiation

There are no pre-requisites for MBA715, however, the remaining four courses require the completion of the MBA Core or admission to the Graduate Certificate in New Venture Management as a pre-requisite. Students must have a minimum of a 3.0 GPA in the program to receive the Graduate Certificate in New Venture Management.

Course Descriptions

MGT 709 - 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:** Completion of the core MBA curriculum or approval of the Director of MBA programs.

MGT 710 - Managing Entrepreneurial Organizations

Credits 3

Developing and managing entrepreneurial organizations. Examines why firms succeed or fail; growth and organizational effectiveness; management systems; and entrepreneur transition. **Prerequisites:**

Completion of the MBA core curriculum or approval of the Director of MBA Programs.

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 787 - International Seminar

Credits 3

Exposes students to the problems and environment of international business in emerging markets. Students will visit selected international enterprises operating outside the US and experience first-hand the business etiquette and culture in that country. **Prerequisites:**

Approval of the Director of MBA Programs.

Management Information Systems

Chair

Peppers, Ken

(2003), Professor; Ph.D. Purdue University.

Graduate Faculty

Chang, Jerry

(2000), Associate Professor, Ph.D., University of Pittsburgh.

Deng, Honghui

(2003), Assistant Professor; Ph.D. University of Texas at Austin.

Hardin, Andrew

(2007), Assistant Professor, Ph.D. Washington State University.

Hong, Weiyin

(2001), Associate Professor, Ph.D., Hong Kong University of Sciences.

Moore, Trevor

(2000), Associate Professor, Ph.D., Aston University, UK.

Rothenberger, Marcus

(2004), Associate Professor; Ph.D. Arizona State University.

Torkzadeh, Reza

(1999), Professor, Ph.D., University of Lancaster, UK.

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.

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

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.

Program Overview

The program includes 57-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 33 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.

Admission Requirements

The admission requirements for the dual degree program are the same as those stated under the regular MBA and M.S. in Management Information Systems programs. Applicants must be admitted to both the MBA and Master of Science in

Management Information Systems programs. Candidates have to apply to both, the MBA program and the MS MIS program and meet the respective application requirements.

Degree Requirements

Completion of the dual MBA and MS MIS degree include:

- Completion of a minimum of 33 credit hours of MBA core courses and a minimum of 24 credits of MS in MIS courses.
- A grade point average of at least 3.00 for course work required for the degree.
- No grade lower than C is acceptable.
- 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.

The following courses are required for the dual degree:

M.S. in Management Information Systems Courses - Total 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
MBA Core Courses - Total Credit: 33
MBA 702 - Statistical Analysis
MBA 706 - Law, Regulations and Ethical Issues
MBA 707 - Organizational Behavior
MBA 709 - Accounting for Managers
MBA 710 - Applied Economic Analysis
MBA 711 - Managerial Finance
MBA 715 - Market Opportunity Analysis
MBA 720 - Supply Chain Management
MBA 730 - Information Systems for Management
MBA 735 - International Business and Cross Cultural Perspectives
MBA 795 - Strategy Formation Processes

Management Information Systems & Hotel Administration Dual M.S

The MIS department and the William F. Harrah College of Hotel Administration are offering a Master of Science in Hotel Administration and Master of Science in 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 needed skills, knowledge, and tools 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. Each student completes a total of 24 credit hours of MIS courses and a total of 24 credit hours of HOA courses. 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.

Admission Requirements

The admission requirements for the dual degree program are the same as those of the regular MS HOA and MS MIS programs. Applicants must be admitted to both, the MS HOA and MS MIS programs. Candidates have to apply to the MS HOA / MS MIS dual program on the UNLV Graduate College web site (not to both individual programs) and submit required application materials to the Graduate College (online application on Graduate College web site, application fee, official transcripts, and official TOEFL score for international applicants), to the MIS Department (official GMAT or GRE score, two letters of recommendation [employee and college faculty if applicable], and official college transcripts), and to the Harrah's College of Hotel Administration (official GMAT or GRE score, two letters of recommendation [employee and college faculty if applicable], official college transcripts, a current resume, and evidence of one year full-time managerial experience or three years full-time front line experience in a hospitality-related field). Applicants must meet the admission requirements of both programs, which include an overall undergraduate grade point average of at least 3.00, a GMAT score of 550 (or satisfactory GRE scores), a satisfactory TOEFL score for international applicants, and full-time work experience in the hospitality industry (one year managerial or three years front line experience).

Curriculum

M.I.S. Core Courses – Total 24 Credits *

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

* With approval of the 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.

Hotel Administration M.S. Courses (dual M.I.S. degree) – Total Credits 24

HOA 716 - Principles and Practices in Hotel Management
or

HOA 717 - Principles and Practices in Convention and Meetings Management
or

HOA 718 - Principles of Casino and Gaming Management
or

HOA 720 - Principles and Practices in Food Service Management
or

HOA 731 - Operational Analysis in Hospitality Management
or

HOA 735 - Research Methodology
or

HOA 725 - Information Technology in the Hospitality Industry
or

HOA 751 - Hospitality Service Management
or

HOA 760 - Research Seminar in Hotel Administration
or

HOA 761 - Research Seminar in Food Service Administration
or

HOA 763 - Research Seminar In Casino and Gaming Management
or

HOA 777 - Critical Issues in Hospitality Management
or

HOA 788 - Professional Paper (Professional paper must be completed at the end of the dual program and examine a topic relating to Information Technology in Hospitality)

Management Information Systems Certificate

The Certificate Information Systems (MIS) program 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 programs of study or they can, upon approval of the MIS Graduate Coordinator, customize the certificate program to meet their specific retooling needs

Program Overview

The Certificate in Management Information Systems program 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 program requires the completion of 12 credits, a subset of the MS MIS program requirements.

Admission Requirements

The Department of MIS welcomes applications from college graduates in all fields. The student must satisfy the minimum requirements of the Graduate College and the Certificate in MIS program. The candidate must meet the following requirements:

1. Submission of completed application form and required application fee;
2. Submission of official transcripts from all institutions attended after high school;
3. 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 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.
5. 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.

Certificate Requirements

The Certificate in MIS program requires the completion of 12 credits of graduate MIS courses (four 3-credit courses). Students can choose from one of the following three suggested programs of study, or they can customize a program of 12 credits (four 3-credit courses) to meet their individual or professional needs. Customized programs of study must be approved by the MIS Graduate Coordinator before the student starts the first courses.

Suggested Programs of Study

All courses are 3 credits. Changes to these courses of study requires prior approval of the MIS Graduate Coordinator.

Business Analysis and Development for Systems

MIS 744 - Information Systems Planning & Strategy

MIS 746 - Information Systems Project Management

MIS 762 - Systems Analysis, Modeling and Design

MIS 766 - Data Management

System Development Technologies

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

Business Intelligence

MIS 760 - Data Communications and Systems
MIS 764 - Advanced Web Development and Electronic Commerce
MIS 766 - Data Management
MIS 776 - Business Intelligence

Note: MBA 730 - Information Systems for Management is the prerequisite for all courses in the certificate program. This prerequisite may be waived for individuals with equivalent prior coursework or extensive information systems experience.

Additional MIS Certificate Courses

MIS 740 - Software Concepts
MIS 752 - Advanced Topics in MIS
MIS 768 - Java Programming
MIS 770 - IS Security, Audit and Control
MIS 772 - Advanced Information Systems

Management Information Systems M.S.

Program Overview

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.

Admission Requirements

Bachelor of Arts or Bachelor of Science degree
Application to the Graduate College at UNLV
Official transcripts of all college-level work
Two letters of recommendation in sealed envelopes
Minimum undergraduate GPA of 3.0 on a four-point scale
Official GMAT or GRE score. A score of 550 or higher is required on the GMAT or a score in the 50th percentile or higher is required on the general aptitude portion of the GRE.

The GMAT test score should be reflective of verbal and quantitative aptitude. GMAT or GRE scores over five years old are not accepted.

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 are required to take the following MBA core courses:

MBA 702 - Statistical Analysis,
MBA 709 - Accounting for Managers,
MBA 710 - Applied Economic Analysis,
MBA 711 - Managerial Finance as Prerequisites: .

Note: MBA 730 - Information Systems for Management is the prerequisite for all courses in this program. The department chair and the associate dean may waive some of these leveling courses for individuals with extensive business and information systems experience.

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. International students are required by the Graduate College to complete the TOEFL with a minimum score of 550 (written) or 213 (computerized) or show comparable evidence of competence in English. International students should check with the Graduate College for current deadlines.

Degree Requirements

Completion of the degree requirements for the Master of Science in Management Information Systems include:

- Completion of a minimum of 36 credit hours of M.S. in MIS courses.
- Optional completion and defense of master's thesis.
- A grade point average of at least 3.00 for course work required for the degree.
- No grade lower than C is acceptable.

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 (12 credit hours if the student elects the non-thesis track) from selected disciplines other than MIS, such as cognitive psychology, computer science, accounting, or economics. 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. 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.

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.

M.S. in Management Information Systems Courses - Total Credits: 24 credits plus 12 credits electives.*

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

*Electives 12 credits (including 6 credits thesis if students elects thesis option)

** 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.

Course Descriptions

Management Information Systems

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:** MBA 730 or admission to the MSIS program.

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: Completion of the core MBA curriculum or approval of the Associate Dean.

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:**

MBA 730

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 730

MIS 752 - Advanced Topics in MIS

Credits 3

Advanced or specialized study in a special topic or subject area in information systems. **Note:** May be repeated with different subject matter to a maximum of six credits.

Prerequisites: MBA 730

MIS 753 - Independent Study

Credits 3 – 6

Independent study under the direction of a faculty advisor of a topic in information systems. **Note:**

May be repeated for credit. **Prerequisites:** MBA 730

MIS 755 - Internship

Credits 3

Supervised practical experience with a participating enterprise or government agency, culminating in a written report. **Note:** 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:** MBA 730 or admission to the MSIS program

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: MBA 730

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:** MBA 730

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:** MBA 730

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: MBA 730

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 730

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: MBA 730

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 760 and 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: MS MIS program admission

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. **Note:** May be repeated to a maximum of eighteen credits. **Prerequisites:** MIS 773 with a minimum grade of B.

Marketing

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:** Completion of the MBA core or approval of the Director of MBA Programs.

MKT 720 - Customer Satisfaction and Service Quality Measurement

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:** Completion of the MBA core or approval of the Director of MBA Programs.

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:** Completion of the MBA core or approval of the Director of MBA Programs.

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: Completion of the MBA core or consent of the Director of MBA Programs.

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:** Completion of the MBA core curriculum or consent of the Director of MBA Programs

College of Education

The mission of the College of Education is to prepare professionals for changing educational contexts. Graduate programs in the College of Education provide a variety of opportunities to prepare for continued professional practice, educational leadership, research, and scholarship in a wide arena of educational settings. Graduate programs in the College of Education include master, educational specialist, and doctoral degrees as well as postbaccalaureate programs for initial teacher licensure and additional endorsement to licensure. These programs are available in the departments of Curriculum and Instruction, Educational Leadership, Educational Psychology, Special Education, and sports Education Leadership. 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 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. The College of Education is accredited by the National Council for Accreditation of Teacher Education (NCATE) and the State of Nevada.

William Speer, Interim Dean

(1998), Professor; B.S., M.S., Ed.D., Northern Illinois University; Ph.D., Kent State University.

Doctoral Degrees in Education

The College of Education offers the Doctor of Philosophy (Ph.D.) and the Doctor of Education (Ed.D.) degrees. Doctor of Philosophy programs are designed to prepare individuals to become skilled researchers, university faculty, and leaders in school districts and community agencies.

Doctor of Education (Ed.D.) programs are designed to prepare candidates for a lifetime of professional service, effective practice, and the application of inquiry.

The following doctoral degrees are offered:

Ed.D in Curriculum and Instruction
Ed.D in Educational Leadership
Ed.D in Special Education
Ph.D. in Curriculum and Instruction
Ph.D. in Educational Leadership
Ph.D. in Educational Psychology
Ph.D. in Learning and Technology
Ph.D. in Special Education
Ph.D. in Sports Education and Leadership
Ph.D. in Teacher Education

All general academic regulations of the Graduate College apply to students in doctoral programs except for specific

variations identified by department. In addition, individual departments may have supplementary doctoral program requirements and may limit program enrollment. Therefore, students are advised to contact their department of choice for additional information.

Admission Requirements

All general admission requirements of the Graduate College must be satisfied. Responsibility for establishing and applying supplemental admission requirements rests with each department. The Graduate College and the departments screen applications for admission. Upon recommendation of the department, the Graduate College gives the final approval of admission. Admission to each department program is limited and each department has established a deadline for completed applications. However, any approved courses taken after the application is filed may be used on the program of study if admission is accomplished. Please refer to departmental guidelines regarding this point. To apply for doctoral program admission, the applicant must:

1. Hold a master's degree from an accredited program in an area of study closely related to the chosen field of specialization;
2. Present evidence of successful professional experience in a field related to the chosen field of specialization; and
3. Meet all additional criteria and provide the necessary evidence of qualifications stipulated by the department in which admission is desired.

Degree Requirements

The Doctor of Philosophy (Ph.D.) and Doctor of Education degrees require a minimum of 60 to 72 semester hours beyond the master's degree. Each department specifies how these semester hours are distributed. Students must maintain continuous enrollment of at least three hours each semester (except summers) throughout the program period.

Residency Requirements for Doctoral Programs

A minimum number of semester hours of credit must be earned at the University of Nevada, Las Vegas campus. Each department has specific requirements for the number of semester hours that constitute the residency requirement.

Course requirements and semester hours taken elsewhere (whether prior to or subsequent to admission) or course requirements taken at the University of Nevada, Las Vegas prior to admission may be utilized in meeting degree requirements at the discretion of each department. Acceptance of courses taken prior to admittance into the doctoral program are subject to the constraints noted in the general academic regulations of the Graduate College and the specific residence requirements of the doctoral program.

The Advisor and the Student's Committee

At the time a student is admitted, the department must designate a temporary program advisor who is a graduate faculty member of the department. The Graduate College must approve the selection of the student's committee when the student has completed a specific number of semester hours determined by the department and committee. The committee guidelines are as follows:

1. The chair and/or co-chairs must be a member(s) of the doctoral faculty designated by the department. It may be the individual(s) who has served as the temporary chair(s).
2. The committee must include at least two members of the doctoral faculty in the student's department.
3. A representative who is a member of the graduate faculty at the University of Nevada, Las Vegas and who is from a department other than the student's must serve on the student's committee. The Dean of the Graduate College appoints this representative when the committee is formed.

The temporary program advisor is responsible for the guidance of the student in course selection and general advisement up to the time of appointment of the student's committee. The chair/co-chairs of the student's committee will have primary responsibility for developing, in consultation with the student, a program of study based on the stated requirements and tailored to meet the student's degree objectives. The committee is responsible for conducting and evaluating the comprehensive and final examination and approving the dissertation topic.

The Program of Studies

When the student has completed the minimum number of semester hours specified by the committee, the program of studies must be filed with the Graduate College. Changes in the approved program require approval by the student, the student's committee, and the Graduate College.

The Doctoral Core Requirement

Each doctoral student will be required to complete a core of studies, which is selected and approved by the student's committee. The content of the core will include but not be limited to the following:

1. Analysis and evaluation of major issues confronting American education that are of significance to all professional educators and/or historical, philosophical, or social foundations of American education.
2. Research concepts and tools that are appropriate to the needs of the student as a consumer of research-based information, as a user of concepts and tools in the dissertation project and as an informed conductor of applied studies. At least six semester course credits are required to be taken by each doctoral student in research methods, interpretation, and/or application. Courses are to be selected by the student's committee

from an approved list of courses provided by the department.

The Qualifying Examination

Some departments require a qualifying examination as a part of the screening process for admission or for diagnostic purposes to be given shortly after admission. Students should consult the specific department for more information.

The Comprehensive Examination

A comprehensive examination, both oral and written, must be conducted by the committee during the term in which all work on the program, except the dissertation, will be completed. The examination will be scheduled, announced, and conducted according to the procedures established by each department and the Graduate College. The comprehensive examinations must be completed successfully before the student is advanced to candidacy. Satisfactory performance on the examination requires unanimous approval of the Committee.

Advancement to Candidacy

The student will be advanced to candidacy upon successful completion of all course work and the passing of the comprehensive examination. Students may register for three dissertation credits before they have been formally advanced to candidacy. Advancement to candidacy must be approved unanimously by the committee, and it must be accomplished within four years of the student's matriculation. The degree program must be completed within six years. If these contingencies are not met, the student will be separated from the Graduate College.

Dissertation

The dissertation topic will involve scholarly, practical consideration of some professional problem designed to contribute to the improvement of educational practice or the body of educational theory. The dissertation should be related to the student's individual program of study, and it must be approved by the committee. The student is referred to department and Graduate College regulations governing the preparation and submission of the dissertation for all technical matters such as form, style, and deadlines for filing.

Final Examination

Following completion of the dissertation, an oral defense will be conducted by the committee. It will be scheduled, announced and conducted according to the procedures and deadlines noted by the department and the Graduate College. Satisfactory performance on the examination requires unanimous approval of the committee.

Application for Graduation

Formal application for graduation must be made according to the procedures noted by the Graduate College.

Master's and Educational Specialist Degrees

Each department offers the Master of Education and/or Master of Science degree, and several departments also offer the Educational Specialist degree. Due to the unique nature of these programs, each department provides information specific to these graduate degrees.

Licensure Programs

The College of Education provides programs to meet the needs of persons who hold the baccalaureate degree and who wish to be licensed in the State of Nevada. Graduate Licensure Programs are offered for persons who wish to pursue a license and/or a master's degree while obtaining a license in administration or elementary, secondary, special or work force education. Individuals interested in graduate level licensure possibilities are encouraged to contact the appropriate department.

Counselor Education

Chair

Pehrsson, Dale-Elizabeth
(2007), Associate Professor; B.S., University of the State of New York, M.Ed., Idaho State University, M. Coun., Idaho State University, Ed.D., Idaho State University.

Graduate Coordinator

Hoskins, Wendy
(2003), Assistant Professor; B.A., William Penn College M.A., Truman State University; Ph.D., Idaho State University.

Graduate Faculty

Ashley, Larry
(2002), Associate Professor in Residence; B.S. in Ed., MA., Central Michigan University; Ed.S., University of Toledo.

Astramovich, Randall
(2002), Assistant Professor; B.A., M.Ed., Ph.D., University of North Texas Ph.D.

Brinson, Jesse A.
(1989), Associate Professor; B.A., Clark College; M.A., University of the District of Columbia; Ed.D., Western Michigan University.

Cross, William E. Jr.
(2008), Professor; B.A., Denver University; Ph.D., Princeton University.

Smith, Shannon
(2003), Associate Professor; B.A., Eastern Bible College M.A., Ashland College; Ph.D., Oregon State University.

Professors Emeriti

Emerson, Shirley

(1984-2000), Emeritus Professor; B.A., Rice University; M.A., Ph.D., University of Michigan.

McBride, Martha

(1975-1999), Emeritus Professor; B.A., M.Ed., University of Florida; Ed.D., University of Georgia.

The Department of Counselor Education offers a 60 credit Master of Science (M.S.) in Clinical Mental Health Counseling and a 48 credit Master of Education (M.Ed.) in School Counseling. Both master's programs are 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. and M.Ed. programs are eligible to sit for the National Counselor Examination in order to qualify for the National Certified Counselor (NCC) credential. The department also offers Advanced Graduate Certificates in Community Mental Health Counseling and Addiction Studies. Both certificate programs are designed for individuals already holding master's degrees in counseling who are seeking to enhance their professional counseling practice and licensure options.

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.

Advanced Graduate Certificate Programs

The Department of Counselor Education offers three advanced certificate programs. These programs and the admission requirements are described below. All certificate students are recognized by the Graduate College as Department of Counselor Education Students.

Admission Requirements for Degree and Certificate Programs

The master's degree programs require than an application for admission be submitted to the Graduate college and the

Department of Counselor Education 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.

Academic Policy

All full and part-time students entering into the M.Ed. and M.S. programs are required to enroll in the following courses during their first fall semester:

CED 701 CED 701 - Introduction to Counseling
and
CED 727 - Counseling Process and Procedures

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. and M.Ed. programs. Students who make a grade of B- or lower (but not an F) in either CED 701 or CED 727 may not continue taking other coursework in the M.Ed. or M.S. programs until successfully repeating these courses. If after a second attempt a student does not make a B or better in CED 701 or CED 727, the student will be officially separated from the graduate program.

Students must make a grade of B or better in:

CED 741 – Practicum in order to enroll in CED 751 - Internship in Counseling I. A grade of B or better is required for all internship courses (CED 751 and CED 775 - Internship in Mental Health and Addictions Counseling) or they must be repeated.

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.

Final Examination Process

1. Students will submit final portfolios electronically to the CED online portal by the appropriate deadline. Students must mask personal identifying information so that the portfolio may be “blind-reviewed” by the faculty evaluators.
2. Three members of the CED faculty will be randomly assigned to evaluate the student's portfolio.
3. After reviewing the portfolio, each of the three faculty reviewers will recommend that the student: 1) Pass or 2)

Fail. The three faculty reviewers must be unanimous in their decision to pass the student.

4. In the event that the three CED faculty reviewers are not unanimous in recommending the student pass, an oral review of the portfolio will be required. Before the oral review, the student will be required to select an additional CED faculty member (not part of the original three faculty evaluators) and a tenured/tenure track faculty member from another College of Education department to participate in the oral review meeting. The original three CED faculty reviewers will provide the student with specific areas needing remediation in their portfolio. The student will be responsible for addressing all areas of remediation prior to the oral review of the portfolio. After the oral review process, the four CED faculty and the additional COE faculty member will recommend that the student: 1) Pass or 2) Fail. The final recommendation will be by majority.

Addiction Studies Certificate

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.

Mental Health Counseling Certificate

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.

Certificate Requirements

To earn a certificate, students must have a grade point average of 3.00 or better in each course. Students who receive an F or more than two Cs will be separated from the program. A minimum of six semester hours of credit must be taken each semester, including summer.

Clinical Mental Health Counseling M.S.

The Clinical Mental Health Counseling program, a 60-semester 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 in Counselor Education 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.

School Counseling M.Ed.

The master's degree in School Counseling 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.

Course Descriptions

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 646 - Combat Trauma

CED 661 - Use and Application of Technology in Counseling

CED 699 - Special Topics

Note: 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.

Note: 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 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 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) Note: 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. Note: 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. Note: 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. Note: May be repeated to a maximum of twelve credits.

CED 751 - Internship in Counseling I

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 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. Note:

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.

Note: 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. Note: 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 - Internship in Mental Health and Addictions Counseling

Credits 3

Internship in Mental Health and Addictions Counseling, emphasizing counseling skills and techniques with individuals and groups in dual diagnosis settings. Note: Students will complete a minimum of 300 hours, with 150 of the hours being direct contact hours. **Prerequisites:** CED 751, CED 752, CED 753

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.

Curriculum & Instruction

Chair

Odell, Sandra
(1996), Professor; B.S., M.A., Ph.D., University of New Mexico

Graduate Coordinators

Boone, Randall A.
(1991), Professor; B.S., M.S., University of Central Arkansas; Ph.D., University of Oregon
Ford, Marilyn Sue
(1984), Associate Professor; B.S., Bowling Green State University; M.Ed., University of Nevada, Las Vegas; Ph.D., Arizona State University.

Graduate Faculty

Bailey, Janelle
(2006), Assistant Professor; B.A., Agnes Scott College; M.Ed., University of Georgia; Ph.D., University of Arizona

- Bean, Thomas W.
(1995), Professor; B.A., University of Hawaii at Manoa; M.S., Southern Oregon State College; Ph.D., Arizona State University.
- Butcher, John
(2004), Assistant Professor; B.A., Pennsylvania State University; M.S. Nova Southeastern; Ph.D., University of Florida.
- Crippen, Kent J.
(2001), Assistant Professor; B.S., University of Nebraska-Lincoln; M.Ed., University of Nebraska-Lincoln; Ph.D., University of Nebraska-Lincoln.
- Deniz, Hasan
(2007), Assistant Professor; B.S., Dokuz Eylul University in Turkey; M.S., Ph.D., Indiana University.
- Garcia, Jesus
(2004), Professor; B.A., San Francisco State University; M.S., Ph.D., University of California.
- Giorgis, Cynthia
(1995), Associate Professor; B.S., Chadron State College; MLS, Ph.D., University of Arizona.
- Grubaugh, Steven J.
(1991), Professor; B.A., California State University, Sonoma; M.A., Ed.D., University of Northern Colorado.
- Harper, Helen
(2004), Associate Professor; B.A., University of Winnipeg; B. Ed., Brandon University; M.A., University of Calgary; Ph.D., University of Toronto.
- Hartley, Kendall
(1999), Associate Professor; B.S., Ph.D., University of Nebraska-Lincoln; M.S., University of Iowa.
- Klecka, Cari
(2004), Assistant Professor; B.A., M.Ed., Ph.D., University of Illinois at Urbana-Champaign.
- Levitt, Gregory A.
(2001), Professor; B.A., Capitol University; M.A., Ohio State University; Ph.D., Ohio State University.
- Lin, Emily Shu-Ying
(2002), Assistant Professor; B.Ed, M.A., University of British Columbia; Ph.D., University of Toronto.
- McCafferty, Steven
(1995), Associate Professor; B.A., California State University; M.A., University of Hawaii; Ph.D., University of New Mexico.
- McCarthy, Jane
(1991), Professor; B.A., Douglass College-Rutgers; M.S., Florida State University, Tallahassee; Ed.D., University of Houston.
- McKinney, Marilyn M.
(1988), Professor; B.A., Mary Washington College; M.S., Ed.D., Northwest Missouri State University; Ph.D., University of Iowa.
- Travis A. Olson
(2009), Assistant Professor; B.S., Western Illinois University; M.S., Western Illinois University; Ph.D. candidate, University of Missouri.
- Quinn, Linda
(1999), Professor and Associate Dean; B.S., Portland State University; Ed.D., University of Houston.
- Ramirez, Maria G.
(1989), Associate Professor; B.S., M.A., Texas A&I University; Ph.D., University of Kansas.
- Schrader, Peter
(2003), Assistant Professor; B.S., M.A., Ph.D., University of Connecticut.
- Shih, Jeffrey (1999),
Associate Professor; B.A., University of California, Berkeley; Ph.D., University of California, Los Angeles.
- Shim, Meehye
(2007), Assistant Professor; B.A., Seoul National University; M.S., Ph.D., Indiana University.
- Spalding, Mary Elizabeth
(2004), Associate Professor; B.A., M.A., University of West Virginia; Ph.D., Indiana State University.
- Speer, William
(1998), Professor and Interim Dean of the College of Education; B.S., M.S., Ed.D., Northern Illinois University; Ph.D., Kent State University.
- Strudler, Neal
(1989), Professor; B.A., State University of New York at Albany; M.A., George Peabody College for Teachers; M.A., Ph.D., University of Oregon.
- Troutman, Porter L.
(1971), Professor; B.S., Southern University; M.A., Northern Arizona University; Ed.S., University of Nevada, Las Vegas; Ed.D., Northern Arizona University.
- Usnick, Virginia E.
(1990), Associate Professor; B.S., University of Nevada, Reno; M.Ed., University of Nevada, Las Vegas; Ph.D., Arizona State University.
- Wang, Jian
(1998), Associate Professor; B.A., Nanchang Technical and Vocational Teacher's College; M.A., Northeast Normal University; Ph.D., Michigan State University.
- Young, Martha W.
(1986), Professor; B.A., M.A., Ph.D., University of New Mexico; M.A., St. John's College.
- Zhang, Shaoan
(2007), Assistant Professor; B.A., M.A., Hebei Normal University; Ph.D., Old Dominion University.

Professors Emeriti

- Boord, Robert O.
(1963-1994), Emeritus Professor; B.S., M.S., Ed.D., Indiana University.
- Case, James B.
(1969-1994), Emeritus Professor; B.A., M.S., Ph.D., University of Toledo.
- Hendrix, Holbert H.
(1956-1980), Emeritus Professor; B.S., M.S., Indiana University; Ph.D., State University of Iowa.
- Kirkpatrick, Thomas E.

(1978-1993), Emeritus Associate Professor; B.S., Florida State University; M.A.C.T., University of Tennessee; Ph.D., Ohio State University.

Lockette, Agnes L.
(1971-1984), Emeritus Associate Professor; B.S., Albany State College; M.Ed., University of Nevada, Las Vegas; Ed.D., University of Arizona.

Lyons, Kathleen P.
(1971-1987), Emeritus Associate Professor; B.S., Siena Heights College; M.S., University of Detroit; M.A.T., Ed.D., Indiana University.

Phillips, Leonard W.
(1966-1994), Emeritus Associate Professor; B.A., University of California, Berkeley; M.A., Humboldt State College; Ed.D., Michigan State University.

Readence, John
(1993-2008), Emeritus Professor and Dean; B.A., Cleveland State University; M.A., Ohio State University; Ph.D., Arizona State University.

Trione, Verdun
(1966-1987), Emeritus Professor; B.A., Roosevelt University; M.A., DePaul University; Ed.D., University of California, Berkeley.

Vergiels, John M.
(1968-1997), Emeritus Professor; B.S., M.Ed., Ph.D., University of Toledo.

Warren, John H.
(1971-1994), Emeritus Associate Professor; B.S., Illinois State University; M.Ed., University of California, Los Angeles.

The Department of Curriculum and Instruction (C&I) offers graduate degrees in education at the master, specialist, and doctoral levels. All C&I 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.

Master Degree Programs

The Department of C&I 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 1 credit culminating experience or 3 credit professional paper 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 6 credits of thesis and a core of six semester hours in research and three semester hours in foundations. The Department of C&I offers the following concentrations for a M.Ed. or M.S. degree:

Concentrations:

Art Education
Children's and Young Adult Literature
Elementary Education

English Education
Library Science
Literacy Education
Mathematics Education
Multicultural Education
Postsecondary Teaching English as a Second Language
Reading Specialist
Science Education
Social Studies Education
Teacher Leadership
Secondary Education
Teaching English as a Second Language (TESL)
Technology Integration
Technology Leadership

Licensure:

Elementary Education Endorsement
Graduate Licensure Program

Graduate courses offered in the Department of C&I are listed under five prefixes: CIE, CIS, CIG, CIL, and CIT. Students are advised to review all department courses and to read the course descriptions carefully. Students should contact their academic faculty advisor if additional clarification is needed. Graduate program information for master's students is available on-line at <http://ci.unlv.edu>.

Professional Development Teacher Licensure Programs

C&I professional development teacher licensure programs are designed for individuals who hold a degree in a field other than education and aspire to become elementary or secondary classroom teachers.

Specialist in Education in Curriculum and Instruction (Ed.S.)

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.

Doctoral Programs in the Department of Curriculum and Instruction (Ed.D. and Ph.D.) in Curriculum & Instruction and Ph.D. in Teacher Education

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 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. Teacher Education;
2. Literacy Education;
3. English as a Second Language/Bilingual Education;
4. Mathematics Education;
5. Educational Technology;
6. Science Education;
7. Cultural and International Studies in Education.

The 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.

Courses in the C&I Department:

The following courses are intended for students accepted into degree programs for the M.Ed., M.S., Ed.S., Ed.D., and Ph.D. This is only a listing of courses and is not a student’s degree plan. The degree plan must be formally filed after meeting with an assigned advisor. Advanced 700-classes are limited only to students in the Ed.S., Ed.D., and Ph.D. programs. Advanced graduate students (Ed.S., Ed.D., and Ph.D. students) occasionally may take master’s level classes with the approval of their advisors.

* Specified 500-level courses may be used in a graduate degree only with the approval of an advisor; these courses primarily are reserved for graduate licensure students.

***C&I Course Numbering Format**

CIE - Elementary (K-8)

| | |
|-------------------|-----------|
| Pedagogy | 600 - 619 |
| Mathematics | 620 - 629 |
| Science | 630 - 639 |
| Social Studies | 640 - 649 |
| Advanced Pedagogy | 680 - 699 |
| Doctoral | 700 - 799 |

CIG - General (K-12)

| | |
|-------------------|-----------|
| Pedagogy | 600 - 619 |
| Mathematics | 620 - 629 |
| Science | 630 - 639 |
| Social Studies | 640 - 649 |
| Art | 650 - 659 |
| Multicultural | 660 - 669 |
| Advanced Pedagogy | 680 - 699 |
| Doctoral | 700 - 799 |

CIL - Literacy (K-12)

| | |
|--------------------------------|-----------|
| Literacy/Reading/Language Arts | 600 - 639 |
| English | 640 - 649 |
| English Language Acquisition | |

| | |
|-------------------|-----------|
| TESL | 650 - 659 |
| Bilingual | 660 - 669 |
| Library Science | 670 - 679 |
| Literature | 680 - 689 |
| Advanced Literacy | 690 - 699 |
| Doctoral | 700 - 799 |

CIS - Secondary (7-12)

| | |
|-------------------|-----------|
| Pedagogy | 600 - 619 |
| Mathematics | 620 - 629 |
| Science | 630 - 639 |
| Social Studies | 640 - 649 |
| Advanced Pedagogy | 680 - 699 |
| Doctoral | 700 - 799 |

CIT - Technology (K-12)

| | |
|--------------|-----------|
| Introductory | 600 - 619 |
| Intermediate | 620 - 649 |
| Advanced | 650 - 669 |
| Doctoral | 700 - 799 |

Curriculum & Instruction M.Ed. & M.S.

Admissions Requirements

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 C&I. They are:

1. An overall undergraduate grade point average (GPA) of 3.00 is required for full graduate status. Students with a GPA of less than 3.00 but greater or equal to 2.75 may be admitted to the graduate program with provisional status;
2. A minimum of 18 hours of course work in professional education taken at the undergraduate or postbaccalaureate level. Exception to this requirement exists for graduate licensure students or other emphasis concentrations with department approval;
3. A completed on-line application for admission submitted to the Graduate College;
4. A one- to two-page statement of professional goals emailed directly to C&I. The names with contact information of two professional references and intended emphasis concentration of study should be included in the statement;
5. 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 C&I (Attention: Graduate Coordinator).

Applications are processed when all credentials required by both the Graduate College and C&I have been received.

Once received, materials are forwarded to the Graduate Coordinator of C&I who evaluates the applicant's credentials and recommends either 1) admission to full 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 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). Students may call (702) 895-1986 or email for assistance.

Advisor Assignment and Program of Studies

The Graduate College will send official notification of acceptance. In addition, an email will be sent from C&I identifying an academic advisor. Students are responsible for contacting their advisors.

Degree Requirements

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. In addition, C&I has established requirements for each of its degree offerings. While these requirements may be obtained from an academic advisor, they are briefly outlined below. The M.Ed. program requires a minimum of 37 semester hours of approved studies and the M.S. requires a minimum of 39 semester hours of approved studies. Both the M.Ed. and M.S. require an overall minimum GPA of 3.00 in all courses counted toward the degree. Students in the M.Ed. program must either take a comprehensive culminating experience or write a professional paper/project as the culminating activity for this degree. A thesis and its defense are the culminating activity for the M.S. Master's degrees must be completed within a six-year period, and continuous enrollment must be maintained throughout the six years.

Professional Development (Post-Baccalaureate Initial Teacher Licensure) Admission Requirements

1. Bachelor's degree with overall GPA of 2.75 or above
2. Content coursework related to general education core for elementary education or specific subject area teaching fields(s) for secondary education
3. Praxis I Pre-Professional Skills Test with passing scores in reading, writing, and mathematics
4. Passing scores on the Teacher Licensure Examinations for Nevada School Law, Nevada Constitution, and U.S. Constitution or credits in related course work
5. Documentation of immunizations with Admissions
6. Fingerprinting in compliance with the Clark County School District policy

7. Graduate Licensure Degree Program (GLP). This program is designed for individuals who hold at least an undergraduate degree in a field other than elementary or secondary education and who aspire to earn a master's degree while qualifying for an initial teaching license. Interested students must first apply simultaneously with a graduate application form to the Graduate College and Graduate Licensure application form to the Professional Development Office.
 - a. Graduate Licensure Elementary (K-8). This program is intended for individuals who wish to secure teacher licensure at the elementary level (K-8). Students must meet prerequisite admission requirements and once admitted attend classes and field experiences as a fulltime graduate student. The program includes upper division course work leading to licensure, full-time student teaching, and then completion of graduate coursework to meet requirements of the M.Ed. while employed as an elementary teacher.
 - b. Graduate Licensure Secondary (7-12). This program is intended for individuals who wish to secure teacher licensure at the secondary level (7-12). Students must meet prerequisite admission requirements and once admitted attend classes and field experiences as a fulltime graduate student. The program includes upper division coursework leading to licensure, full-time student teaching, and then completion of graduate coursework to meet requirements of the M.Ed. while employed as a secondary teacher.

For further information regarding program requirements and the application process, contact the Professional Development Office in the Department of Curriculum and Instruction, CEB 354, (702) 895-1536 or online at <http://ci.unlv.edu>.
8. Initial Licensure Program (ILP). This program is designed for individuals who hold at least an undergraduate degree in a field other than elementary or secondary education and who aspire to qualify for an initial teaching license in a fast-paced, one-year intensive program with enrollment in undergraduate classes and field experiences (per student request, a less intensive two-year plan is acceptable). Interested students must apply simultaneously with an Initial Licensure application form to the Professional Development Office and a copy of the same application form to the Office of Admissions.
 - a. Initial Licensure Elementary (K-8). This program is intended for individuals who wish to secure teacher licensure at the elementary level (K-8). Students must meet prerequisite admission requirements and once admitted attend classes including student teaching for three consecutive semesters. The program includes undergraduate course work leading to licensure followed by full-time student teaching.
 - b. Initial Licensure Secondary (7-12). This program is intended for individuals who wish to secure teacher licensure at the secondary level (7-12). Students must

meet prerequisite admission requirements and once admitted attend classes including student teaching for two to three consecutive semesters. The program includes undergraduate course work leading to licensure followed by full-time student teaching. For further information regarding program requirements and the application process, contact the Professional Development Office in the Department of Curriculum and Instruction, CEB 354, (702) 895-1536 or online at <http://ci.unlv.edu>

Curriculum & Instruction Ed.S.

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.

Admission Requirements

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. Submit a one- to two-page statement of professional goals emailed directly to Curriculum and Instruction that includes the names of two professional references (Attention: Graduate Coordinator);
7. Submit 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 Department of Curriculum and Instruction (Attention: Graduate Coordinator).

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.

Degree Requirements

The Ed.S. in Curriculum and Instruction requires a minimum of 33 semester hours, a GPA of 3.00 or higher in all course work and a written comprehensive examination and/or oral presentation of a special project or professional paper.

Students should consult C&I for specifics on program development and requirements.

Curriculum & Instruction Ed.D.

Admission Requirements

Application for the Ed.D. in Curriculum and Instruction 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. in Curriculum and Instruction include:

1. Meet the requirements for admission to the Graduate College of UNLV set forth in the UNLV Graduate catalog.
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: (a) emphasis area of study [see nota bene below], (b) the reasons for pursuing a doctorate in education, (c) expectations concerning the doctoral program, (d) potential areas of

- study, and (e) 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.
 10. International students are encouraged to self-report their TOEFL scores via the Graduate College online application. Official scores must also be sent directly to the UNLV Graduate College.

N.B. The Department of Curriculum and Instruction offers doctoral programs in seven different emphasis areas: (a) Cultural and International Studies, (b) Instructional Technology, (c) Literacy, (d) Mathematics Education, (e) Science Education, (f) Teacher Education, and (g) Teaching English as a Second Language.

Degree Requirements

Doctoral students in the Ed.D. program must complete a minimum of 69 hours of course work beyond their master's degree. Course work is organized into an emphasis area (27 hours), a cognate (9-12 hours), educational research and statistics (12 hours), internship (6-12 hours), and dissertation (15-24 hours). The doctoral student's advisor must approve all course work. A plan of study must be filed before the completion of 16 hours of course work. Consult the department's Coordinator of Doctoral Studies for further information on the process and procedure for filing a program of study. Specific required and recommended courses for each emphasis area can be found in the Doctoral Studies Guide on the department Web site. The Doctor of Education degree is awarded to candidates who complete the following:

1. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level;
2. Complete a minimum of 69 credit hours beyond the master's degree as stated in the candidate's program of study;
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 C&I Doctoral Colloquium held periodically throughout their years of study;
5. Pass a written comprehensive examination taken before commencing with the dissertation;
6. Complete and successfully defend the dissertation. The candidate must follow the guidelines set forth in Guide to Preparing & Submitting a Thesis or Dissertation available on the Graduate College Web site;
7. File the appropriate graduation forms with the Graduate College; and

8. File the original and two copies of the approved dissertation with the Graduate College and one copy of the dissertation with the C&I Department.

Curriculum & Instruction Ph.D.

Admission Requirements

Application for the Ph.D. in Curriculum and Instruction is accomplished through the UNLV Graduate College online application process. Deadline for completed and submitted applications is March 1.

Specific admission criteria for the PhD in Curriculum and Instruction include:

1. Meet the requirements for admission to the Graduate College of UNLV set forth in the UNLV Graduate catalog.
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: (a) emphasis area of study [see nota bene below], (b) the reasons for pursuing a doctorate in education, (c) expectations

concerning the doctoral program, (d) potential areas of study, and (e) 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, pp. 6, 10-11, & 18; <http://ci.unlv.edu/doctoral>). 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.
11. International students are encouraged to self-report their TOEFL scores via the Graduate College online application. Official scores must also be sent directly to the UNLV Graduate College.

N. B. The Department of Curriculum and Instruction offers doctoral programs in seven different emphasis areas: (a) Cultural and International Studies, (b) Instructional Technology, (c) Literacy, (d) Mathematics Education, (e) Science Education, (f) Teacher Education, and (g) Teaching English as a Second Language. 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.

Degree Requirements

Doctoral students in the Ph.D. program must complete a minimum of 72 hours of course work beyond their master's degree. Course work is organized into an emphasis area (27 hours), a cognate (9-12 hours), educational research and statistics (15 hours), internship (6-12 hours), and dissertation (15-24 hours). The doctoral student's advisor must approve all course work. A plan of study must be filed before the completion of 16 hours of course work. Consult the department's Coordinator of Doctoral Studies for further information on the process and procedure for filing a program of study. Specific required and recommended courses for each emphasis area can be found in the Doctoral Studies Guide on the department Web site.

The Doctor of Philosophy in Curriculum and Instruction degree is awarded to candidates who complete the following:

1. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level;
2. Complete a minimum of 72 credit hours beyond the master's degree as stated in the candidate's program of study;
3. Complete the residency requirement, which requires an extended period of intensive study and intellectual

professional development among a community of scholars in the department, college, and university. Two consecutive semesters full-time during this period are required. Residency experiences preclude working fulltime during this period. Residency experiences provide an opportunity to learn in-depth the philosophical and pragmatic dimensions of the Curriculum and Instruction Department. Consult the department's Coordinator of Doctoral Studies for further information on the process of residency approval;

4. Attend the C&I Doctoral Colloquium held periodically throughout their years of study;
5. Pass a written comprehensive examination taken before commencing with the dissertation;
6. Complete and successfully defend the dissertation. The candidate must follow the guidelines set forth in Guide to Preparing & Submitting a Thesis or Dissertation available on the Graduate College Web site;
7. Submit an article for publication in a national refereed journal.
8. File the appropriate graduation forms with the Graduate College; and
9. File the original and two copies of the approved dissertation with the Graduate College and one copy of the dissertation with the C&I Department.

Teacher Education Ph.D.

Admission Requirements

Application for the Ph.D. in Teacher Education is accomplished through the UNLV Graduate College online application process. Deadline for completed and submitted applications is March 1.

Specific admission criteria for the PhD in Teacher Education include:

1. Meet the requirements for admission to the Graduate College of UNLV set forth in the UNLV Graduate catalog.
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 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: (a) the reasons for pursuing a doctorate in teacher education, (b) expectations concerning the doctoral program, (c) potential areas of study within teacher education, and (d) 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, pp. 6, 10-11, & 18; <http://ci.unlv.edu/doctoral>). 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.
11. International students are encouraged to self-report their TOEFL scores via the Graduate College online application. Official scores must also be sent directly to the UNLV Graduate College.

Admission Process

Once requirements are met, members of the C&I Graduate Faculty will evaluate all evidence for admission submitted by the applicant and then make their recommendations to the entire C&I faculty. The C&I faculty will make a recommendation to the Graduate College, and the Graduate College will send written notice regarding admission to the applicant. Only complete applications will be considered.

Continuing Enrollment

Once matriculated as a doctoral student, the student must enroll in at least three semester hours each term. The work must be related to the student's program or dissertation.

Degree Requirements

The Ph.D. in Teacher Education consists of a minimum of 63 credits beyond the master's degree. Of the 63 credits, 21 credits are required courses: six credits are in specific research and inquiry courses and 15 credits are in the required education core. In addition, a teaching internship (6 credits) and a school-based internship (3-6 credits) are required. Of the remaining credits, six are electives in the inquiry and research area and nine credits are in teacher education and teaching/learning electives. In addition, three hours of required research seminar are taken concomitantly with the dissertation. Eighteen-24 hours of dissertation are required. Individual programs of study may exceed the minimum requirements; specific course work will vary depending on the particular teaching field or emphasis that is chosen in teacher education. Specific required and recommended courses can be found in the Doctoral Studies Guide on the department Web site.

Completion of the degree requirements for a Ph.D. in Teacher Education includes the following:

1. Maintain an overall GPA of 3.00 or higher for all course work taken at the doctoral level;
2. Complete a minimum of 63 hours of study beyond the master's degree as stated in the candidate's program of study;
3. Complete the residency requirement for the degree by spending at least two consecutive semesters, which may include one summer session, as a full-time student;
4. Attend the C&I Doctoral Colloquium held periodically throughout the years of study;
5. Pass a written comprehensive examination taken before commencing with the dissertation;
6. Complete and successfully defend the dissertation. The candidate must follow the guidelines set forth in the Guide to Preparing & Submitting a Thesis or Dissertation available for the Graduate College;
7. File the appropriate graduation forms with the Graduate College; and
8. File the original and two copies of the approved dissertation with the Graduate College and one copy of the dissertation with the C&I Department.

Course Descriptions

CIE - Elementary (K-8)

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 Note: Credit at the 500 level normally requires additional work.

Prerequisites: CIE 601 and EDEL 311

CIE 533 - Teaching Elementary School Mathematics

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 652 Same as EDEL 433 Note: Credit at the 500 level normally 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

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 655 Same as EDEL 443 Note: Credit at the 500 level normally requires additional work.

Prerequisites: PPST, BIOL 100, GEOG 101 and 103, CHEM 105 and 106 or 110. **Corequisite:** Enrollment in a practicum.

CIE 553 - Teaching Elementary School Social 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 CIE 658 Same as EDEL 463 Note: Credit at the 500 level normally 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 Note: 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 Note: 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 CIG - General 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 CIG - General 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 CIG - General 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 - General (K-12)**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 Note: 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 Note: 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 Note: Credit at the 600 level normally requires additional work.

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 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.

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 Note: 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 Note: 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. Note: 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 Note: 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
Note: 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. Note: Maximum of six credits accepted toward a degree. **Prerequisites:** Must be approved prior to registration.

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. Concurrent enrollment in CIG 791.

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. Concurrent enrollment in CIG 791.

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:** Doctoral status and EPY 702.

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. Note: 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. Note: 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. Note: 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. Note: 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. Note:

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.

Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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.

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.

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.

CIL – Literacy (K-12)

CIL 501 - Children's Literature Elementary School Curriculum
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 CIL 615 Same as EDRL 401 Note: Credit at the 500 level normally 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

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 CIL 655 Same as EDRL 442 Note:

Credit at the 500 level normally requires additional work.

Prerequisites: PPST **Corequisite:** Enrollment in a practicum.

CIL 543 - Literacy Instruction II

Credits 3

Methods and materials for accommodating students with literacy difficulties in the regular classroom. Emphasis on informal assessment procedures. Formerly CIL 720 Same as EDRL 443

Prerequisites: CIL 542 **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 Note: 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 Note: 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 Note: 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. Note: 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 650 - 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 CIL 655

CIL 651 - Theories of Second Language Acquisition

Credits 3

Current philosophies and approaches to second language acquisition and instruction; attention to sociocultural influences. Formerly CIL 652

CIL 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. Formerly CIL 651 **Prerequisites:** CIL 650, CIL 651

CIL 653 - TESL Curriculum

Credits 3

Principles of curriculum organization, development and adaptation of TESL curriculum. Formerly CIL 752

Prerequisites: CIL 650, CIL 651**CIL 654 - TESL Assessment Procedures**

Credits 3

Assessment of ESL students; selection of appropriate ESL assessment instruments, their administration, scoring, and interpretation. Formerly CIL 754 **Prerequisites:** CIL 652, CIL 653.

CIL 655 - 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 CIL 650 **Prerequisites:** CIL 652, CIL 653

CIL 656 - Technology Assisted English Language Learning

Credits 3

Application software for ESL learning, including evaluation of software. Formerly CIL 756 **Prerequisites:** CIL 654, CIL 655.

CIL 657 - English Language Acquisition Practicum

Credits 2

Supervised field experience in an ESL setting with application of TESL methods, materials, and assessment procedures. Formerly CIL 757 **Prerequisites:** CIL 654, CIL 655.

CIL 659 - English Language Acquisition Seminar

Credits 3

Examination of seminal and current English language acquisition research through readings, writings, discussions and presentations. Formerly CIG 717 **Prerequisites:** 15 graduate credits of ELA coursework.

CIL 661 - 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.

CIL 664 - 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 764 **Prerequisites:** CIL 652

CIL 665 - Curriculum Development Bilingual Classroom

Credits 3

Principles of curriculum organization, development, adaptation, and implementation of a bilingual (Spanish-English) curriculum. Formerly CIL 762 **Prerequisites:** CIL 652

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 **Note:** 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. **Note:** 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:** Doctoral status. CIL 772 and CIL 774 or consent of instructor.

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. Note: Maximum of six credits accepted toward a degree.

Prerequisites: Doctoral status. EPY 702 and 721 or consent of instructor.

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. Note: Maximum of six credits accepted toward a degree.

Prerequisites: Doctoral status. Six hours of educational research from EPY 718, 721, or 722.

CIS- Secondary (7-12)

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 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. Note: Credit at the 500 level normally requires additional work. **Corequisite:** CIS 702

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. Same as EDMS 453 Note: Credit at the 500 level normally 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. Same as EDSC 453 Note: Credit at the 500 level normally 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. Same as EDSC 463 Note: Credit at the 500 level normally requires additional work. **Prerequisites:** PPST **Corequisite:** Enrollment in a practicum and CIS 702.

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:** Subject area methods and CIS 603.

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:** Subject area methods and CIS 602.

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 Note: 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 Note: 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 Note: Maximum of six credits accepted toward a degree.
Prerequisites: Current teaching certificate 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 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 Note: 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 573 and current teaching certificate 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 684

CIT-Technology(K-12)

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

Survey of issues and methods for implementing computer applications in elementary schools. Formerly CIT 701 Same as CIT 602

CIT 602 - Technology Applications Secondary Curriculum

Credits 3

Survey of issues and methods for implementing computer-based technology applications in secondary schools.

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 Note: 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 609 - Internet for Educators

Credits 3

Examines the potential of the Internet to impact K-adult education. Explores a wide range of on-line resources and how they can be integrated in the curriculum. Formerly CIT 709

CIT 611 - Desktop 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, graphics scanning, and desktop publishing projects for the classroom. Formerly CIT 711 **Prerequisites:** Coursework in educational technology or consent of instructor.

CIT 620 - Integrating Technology in Teaching and Learning

Credits 3

Study of research-based practices and methods of integrating computer-based technology in teaching and learning. Students actively explore educational courseware, student and teacher productivity tools, telecommunications, educational multimedia, and problem-solving software. Formerly CIT 720 **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 - Instructional Design of Educational Software

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:** Coursework in educational technology or consent of instructor.

CIT 647 - Foundations of Online Learning

Credits 3

Examines current issues, policies, and trends pertaining to web-based teaching and learning. Students actively explore and evaluate a wide variety of online resources leading to the design and creation of a web-based curriculum unit. Formerly CIT 747 **Prerequisites:** CIT 620 or consent of instructor.

CIT 649 - Instructional Methods Computer Applications

Credits 3

Study of research-based practices and methods of teaching application programs (word processors, data base managers, spreadsheets, graphics programs, and telecommunications software). Emphasis on methods of teaching communications, information management, and information retrieval using application programs. 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 - Development of Educational Software

Credits 3

Focuses on current programming languages used in creating educational multimedia. Emphasis on Internet-based applications. Formerly CIT 753 **Prerequisites:** CIT 620 or consent of instructor.

CIT 667 - Technology and Educational Change

Credits 3

Examines issues and trends pertaining to the implementation of computer-based innovations in schools. Includes a review of research on past and current change efforts. Topics covered include staff development, research-based strategies for technology coordinators, and long-range planning for effective change. Formerly CIT 767

Prerequisites: CIT 620 or consent of instructor.**CIT 668 - Issues and Methods 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 web-based curriculum materials. Emphasis is on issues and trends in virtual schooling and emerging best practice for effective. Formerly CIT 768

Prerequisites: CIT 647 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 - Educational Multimedia Production**

Credits 3

Culminating activity in computer-based instructional design and development. Project-based course emphasizing problem definition, instructional design, and product development with students evaluated in both process and product. Students also work individually on a set of relevant technical competencies. Formerly CIT 763 **Prerequisites:** CIT 620 and CIT 643 or CIT 653 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 - Advanced Seminar in Educational Technology Research

Credits 3

Advanced research-based seminar in educational technology. Emphasis on critical review and analysis of the use of technology in teaching and learning.

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 for students and teachers, technology integration in methods courses and field experiences, use of electronic portfolios, 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 - Multimedia Learning Studio**

Credits 3

Examines the latest research regarding multimedia learning. Research supported principles will be applied in the development of multimedia instructional materials.

Prerequisites: CIT 778 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.

Educational Leadership

Chair

Jordan, Teresa S.

(1990), Professor; B.S., Miami University; M.S., Ph.D., Arizona State University.

Graduate Faculty

Ackerman, Robert

(2000), Associate Professor; B.S., M.S., University, of Wisconsin-Oshkosh; Ed.D., Indiana University.

Bomotti, Sally

(2005), Assistant Professor-in-Residence; B.A., Duke University; M.A., Ph.D., University of Michigan.

Carlton, Patrick

(2000), Professor; A.A., Louisburg College; A.B., M.Ed., University of North Carolina; M.A., Shippensburg University; Ph.D., University of North Carolina.

Crawford, James
(2000), Associate Professor; B.A., University of Colorado-Boulder; M.Ed., University of Idaho-Moscow; Ph.D., University of Missouri.

Gordon, Howard R.
(2008), Professor; Diploma, School of Agriculture, Jamaica, West Indies; B.S. and M.S., Tuskegee University; Ed.D., Virginia Polytechnic Institute and State University.

Hager, James
(2004), Professor-in-Residence, B.S., St. Benedict's College; M.S., Kansas State University; Ph.D., University of Iowa.

Hall, Gene
(1999), Professor; B.S., Castleton State College; M.S., Ph.D., Syracuse University.

Jordan, Teresa S.
(1990), Professor; B.S., Miami University; M.S., Ph.D., Arizona State University.

Kops, Gerald C.
(1989), Professor; B.S., University of Wisconsin-Milwaukee; J.D., Cornell University Law School; Ph.D., University of Wisconsin-Madison.

Maldonado-Daniels, Cecilia
(2000), Associate Professor; B.S., M.S., University of Akron; Ph.D., Pennsylvania State University.

Martinez, Mario
(2003), Associate Professor; B.S., New Mexico State University; MBA, University of Texas, Austin; Ph.D., Arizona State University.

McClain, Clifford R.
(1988), Associate Professor; B.S., M.S., University of Idaho; Ph.D., University of Nebraska.

McCord, Robert S.
(1999), Associate Professor; B.S., M.S., University of Wisconsin-Stout; Ed.D., University of Nevada Las Vegas.

Robison, Michael S.
(2003), Associate Professor-in-Residence; B.S., M.Ed., Ed.S., Ed.D., University of Nevada, Reno.

Rosser, Vicki, J.
(2007), Associate Professor; B.A. University of Hawai'i-West O'ahu; M.Ed., Ph.D., University of Hawai'i at Manoa.

Rusch, Edith A.
(2004), Professor; B.S., University of Wisconsin; M.A., University of Northern Colorado; Ph.D., University of Oregon.

Saddler, Sterling
(1998), Associate Professor; B.S., Tuskegee University; M.S., SUNY Oswego; Ph.D., Pennsylvania State University.

Salazar, Pamela S.
(2002), Assistant Professor in Residence; B.S., M.S., Ed.D., University of Nevada, Las Vegas.

Professors Emeriti

Andersen, Dale G.
(1984), Emeritus Professor, B.S., M.A., Montana State University; M.Ed., University of Southern California; Ed.D., Arizona State University.

Chance, Edward
(1995-1999), Emeritus Professor; B.A., M.S.S., M.Ed., Ph.D., University of Oklahoma.

Dettre, John R.
(1972-1989), Emeritus Professor; B.A., B.S., M.A., Ph.D., Ohio State University.

Kavina, George
(1971-1994), Emeritus Professor; B.S.C., Roosevelt University; M.Ed., National College of Education; Ed.D., University of Arizona.

Meacham, Paul. E
(1995-2004), Emeritus Professor; B.S. Tennessee State University; M.S. University of Michigan; Ph.D. University of Texas.

Rothermel, Bradley L.
(1981-2000), Emeritus Professor; B.S., Northern Illinois University; M.S., Ph.D., University of Illinois, Champaign-Urbana.

Samson, George
(1968-1989), Emeritus Professor; B.A. Assumption College, M.Ed. Springfield College, Ph.D. University of Connecticut.

Saville, Anthony
(1967-1998), Emeritus Professor; B.S., Illinois State University; M.Ed., Ed.D., University of Missouri.

Steinhoff, Carl R.
(1988), Professor; B.A., M.A., Ed.D., Syracuse University.

The primary mission of the Department of Educational Leadership is the development of individuals for leadership roles at all levels of education and related business/industrial enterprises. Its scope includes Higher Education Leadership, PK-12 Education Leadership, and Workforce Education and Development. Department programs provide theoretical constructs and practitioner training for those interested in careers as public or private education leaders, community college or university faculty, or teachers in business and industry.

The Department of Educational Leadership offers master's and doctoral degree programs in the following areas:

1. PK-12 education leadership
2. Higher education leadership
3. Workforce education and development

Educational Leadership Program Areas

PK-12 Education Leadership

Coordinator: Michael Robison, Ed.D.

Master of Education (M.Ed.) Program Descriptions

PK-12 Education Leadership offers the following programs and certification options:

Collaborative Principal Preparation Program

This master's degree option is a collaborative effort between UNLV and the Clark County School District to prepare school leaders. Students are selected for admission by a committee comprised of both UNLV faculty and CCSD personnel. Students matriculate as a cohort. Students have a mentor, who is a practicing school leader, throughout the course of the program.

Leadership Preparation Program

This master's degree option is a cohort program for preparing school leaders. Students are selected for admission by a committee of department faculty. Students matriculate as a cohort.

Self-paced Option

This master's degree option is a non-cohort program for preparing school leaders where students may select courses on a schedule at their convenience.

Administrative Endorsement Only

This option allows students to take graduate-level courses as a non-degree seeking student in PK-12 in Education Leadership. It provides the opportunity for students to take those courses that lead to the State of Nevada's Administrative Endorsement. Many of these courses are available online through Borderless Access to Training and Education (BATE), a consortium of universities that provide administrative certification courses.

Educational Leadership M.Ed.

PK-12 Education Leadership

Coordinator: Michael Robison, Ed.D.

Master of Education (M.Ed.) Program Descriptions

PK-12 Education Leadership offers the following programs and certification options:

Collaborative Principal Preparation Program

This master's degree option is a collaborative effort between UNLV and the Clark County School District to prepare school leaders. Students are selected for admission by a committee comprised of both UNLV faculty and CCSD personnel. Students matriculate as a cohort. Students have a

mentor, who is a practicing school leader, throughout the course of the program.

Leadership Preparation Program

This master's degree option is a cohort program for preparing school leaders. Students are selected for admission by a committee of department faculty. Students matriculate as a cohort.

Self-paced Option

This master's degree option is a non-cohort program for preparing school leaders where students may select courses on a schedule at their convenience.

Administrative Endorsement Only

This option allows students to take graduate-level courses as a non-degree seeking student in PK-12 in Education Leadership. It provides the opportunity for students to take those courses that lead to the State of Nevada's Administrative Endorsement.

Admission Requirements

Students must first apply for admission on-line through the university's Graduate College website <http://graduatecollege.unlv.edu/> Students may up-load or attach all required Department of Educational Leadership documents to the Graduate College Online Application. Current application deadlines are posted on the department program areas websites. Minimum admission requirements for UNLV Graduate College include:

1. A completed application form available on the Graduate College website and the non-refundable application fee <http://graduatecollege.unlv.edu>
2. One copy of official transcripts from all institutions attended after high school

Additional material are required by the Department of Educational Leadership for admission to the PK-12 Education Leadership Master's In Education Program. Students are advised to attach the required documents to the Graduate College On-line Application. Copies may be submitted directly to the Department of Educational Leadership. The admission requirements are listed as follows:

1. Official copy of the Graduate Record Examination (GRE) or the Miller's Analogies (MAT) results;
2. Faculty review of the student's past academic performance;
3. Minimum GPA of 2.75 for all undergraduate work or a 3.0 for the last two years of undergraduate work;
4. Evidence of a minimum of two years of satisfactory teaching or administrative experience (or equivalent) is recommended;
5. Two letters of professional recommendation;
6. Official transcripts.

For the *Collaborative Principal Preparation Program* in PK-12 Education Leadership there are additional admission requirements, including a nomination and screening process through the Clark County School District, a formal interview conducted jointly by CCSD and UNLV faculty, and a written statement of leadership philosophy.

For the *Leadership Preparation Program* in PK-12 Education Leadership, there are additional admission requirements, including a formal interview with faculty and a written statement of leadership philosophy.

A maximum of 12 credit hours from another accredited institution may be transferred into a program with graduate faculty and UNLV Graduate College approval. For students who have been enrolled as non-degree seeking and have been taking graduate courses within the UNLV system, a maximum of 15 graduate credits may be applied toward a degree. The student's graduate studies advisor, department chair, and Graduate College dean must approve any transfer or earned credit and must be filed in a student's plan of study.

Degree Requirements

The Master of Education degree in PK-12 Education Leadership requires a minimum of 39 semester credit hours. A minimum of 36 hours must be in courses prefixed EDA, and all courses in the program shall be at the graduate level (numbered in the 700 series). The Praxis II for Education Administration and Supervision is required as an exit competency exam to be taken either the semester prior to graduation or during the final semester. Nevada Administrative Endorsement requires 36 semester credit hours. Students should contact the Certification Department of the Nevada State Department of Education for current administrative endorsement requirements.

For specific information on the Department of Educational Leadership's PK-12 Education Leadership program website.

Educational Leadership Ed.S.

The Specialist in Education (Ed.S.) degree is designed to provide students an opportunity to seek greater in-depth understanding of selected aspects of administration beyond the master's level in administration. The student is expected to pursue a program that concentrates on one of the subdisciplines within Educational Leadership. The emphasis in courses at the specialist level will be upon interpretation, application, and analysis of knowledge. This degree is not available in the Higher Education program.

Admission Requirements

Admission to the Ed.S. program requires that the candidate meet the leadership requirements for admission to the master's program and complete the following:

1. Fulfill the requirements for a master's degree in educational administration or the equivalent, taking any courses necessary to meet these requirements in addition to courses specified for the Specialist in Education degree.
2. Present evidence of two years of appropriate experience as a teacher or an administrator-supervisor. In evaluating applications for admission in this program, the department committee will give consideration to the following factors:
 - a. Evidence of satisfactory professional experience.
 - b. Evidence of writing ability and facility in verbal expression.
3. Verification of a master's degree in educational administration or the equivalent.

Degree Requirements

The Ed.S. degree requires a minimum of 32 semester credit hours of graduate course work beyond the master's degree. Academic background deficiencies may require the completion of supplemental course work in addition to the 32 program hours.

1. Complete a minimum of 18 credit hours prefixed EDA.
2. Specialize in one area appropriate to the field of study, i.e., finance, law, supervision, organizational development, leadership, workforce education, etc.
3. Complete a minimum of three hours of internship. Students who have had no administrative experience will be required to complete six hours or more of practicum or internship under departmental supervision.
4. Complete a minimum of six credits selected from a field other than educational administration.
5. Prepare a professional paper.
6. Maintain an overall 3.00 GPA.
7. Pass a comprehensive examination either during the final semester or in the next semester after the completion of all course work.

Educational Leadership Ed.D. in PK-12 Education Leadership

The Ed.D. in Educational Leadership is practitioner-oriented and tailored as much as possible to the professional needs of the individual student. The PK-12 Education Leadership doctorate provides the theoretical framework and practical applications needed for those interested in careers as public or private school administrators or in other fields calling for educational leadership.

The PK-12 Education Leadership doctorate is a cohort program. The program's professional training stresses visionary leadership, collaborative problem solving, interpersonal and inter-group relations, and effective

communications. A unique feature of the program permits students to establish residency during two consecutive summers. It is flexibly structured, thus allowing the candidate to combine work on the degree with performance on the job, eliminating the need for extensive leaves of absences from work.

Admission Requirements

Students must first apply for admission through the university's Graduate College. After an initial evaluation, the Graduate College forwards all of the materials to the Department of Educational Leadership for review. Current application deadlines are posted on the department program areas websites. Minimum admission requirements for UNLV's Graduate College include:

1. Completed application and nonrefundable admission and application fee;
2. One copy of official transcripts from all institutions attended after high school, including verification of a master's degree in educational administration or an approved equivalent.

More information is available on the Graduate College website.

Additional materials must be submitted directly to the Department of Educational Leadership. These include:

1. Evidence of a master's degree from an accredited college or university or an approved equivalent;
2. Copies of all college transcripts with degrees posted;
3. Three letters of professional recommendation;
4. Satisfactory composite scores on the Graduate Record Examination's General Test;
5. A current professional resumé or vita;
6. Verification of administrative or teaching experience or comparable employment in PK-12 education or related field.
7. Evidence of writing ability
8. Evidence of entry-level technology skills;
9. Appropriate professional aspirations reflected in a personal statement.

After a review, the appropriate program faculty within the department will select students for interviews with departmental faculty based upon the application materials submitted to the Graduate College and the department. Each candidate's final admission decision relies on an evaluation of all application materials including the interview.

Degree Requirements

The program consists of a minimum of 60 credit hours of study beyond the master's degree, including the completion of a dissertation, which represents a minimum of 12 of those credits. It includes a two-semester residency core of 21 credit hours. Students must be continuously enrolled for at least three semester hours of course work throughout their program; the courses must be related to the student's

program or dissertation. Students must file a course of study with the Graduate College before the completion of 15 credit hours. Students must complete degree requirements within six calendar years of matriculation in the program.

For additional information about the program, contact the department or visit the Department of Educational Leadership's PK-12 Program area website.

Executive Leadership Cohort Ed.D.

The Executive Leadership program focuses on current and future educational challenges to enhance the knowledge and skill development of mid-career public school leadership in their current and future leadership positions. This program utilizes a problem-based learning approach that consists of a series of compressed thematic seminars in which emphasis is placed on identifying and developing solutions to real life problems of practice. Additionally, this program provides for the interaction between students and faculty to determine the precise content and problems of practice that will be pursued under each broadly defined theme. Students meet on weekends and for 10 days each summer.

Admission Requirements

Students must first apply for admission through the university's Graduate College. After an initial evaluation, the Graduate College forwards all of the materials to the Department of Educational Leadership for review. Current application deadlines are posted on the department program areas websites. Minimum admission requirements for UNLV's Graduate College include:

1. Completed application and non-refundable admission and application fee;
2. One copy of official transcripts from all institutions attended after high school, including verification of a master's degree in educational administration or an approved equivalent.

For more information about the Graduate College, please visit: <http://graduatecollege.unlv.edu>.

Additional materials must be submitted directly to the Department of Educational Leadership. These include:

1. Evidence of a master's degree from an accredited college or university or an approved equivalent;
2. Copies of all college transcripts with degrees posted;
3. Three letters of professional recommendation;
4. Satisfactory composite scores on the Graduate Record Examination's General Test;
5. A current professional resumé or vita;
6. Verification of professional experience in leadership positions equivalent to Principal or above;
7. Evidence of writing ability;
8. Evidence of entry-level technology skills;
9. Written statement of leadership philosophy.

After a review, the appropriate program faculty within the department will select students for interviews with departmental faculty based upon the application materials submitted to the Graduate College and the department. Each candidate's final admission decision relies on an evaluation of all application materials including the interview.

Degree Requirements

The minimum program consists of 60 credit hours of study beyond the master's degree, which includes 12 credit hours for dissertation study. Executive doctoral students are required to participate in a one-week internship with a school district or education agency outside their own employment during the spring semester of their first year of course work. Students also participate in a one-week federal education seminar in Washington, D.C. during the spring semester of their second year of course work. In addition to regular course fees, an additional fee of \$600 per semester is required in this program and covers textbook and supplementary materials, breakfast, lunch, and dinner for weekend classes, and travel and lodging for the Washington, D.C. seminar. The residency requirement is met by enrollment of 30 semester hours of course work throughout their program; the courses must be related to the student's program or dissertation. Students must complete all degree requirements within six calendar years of matriculation in the program. For additional information about the program, contact the department or visit the Department of Educational Leadership's PK-12 Program Area Web site: http://education.unlv.edu/Educational_Leadership/pk12admin/pk12admin.htm

Higher Education Leadership M.Ed.

The Master's of Education degree (M.Ed) in Higher Education Leadership prepares students for entry-level and mid-management level positions at public and private universities, community colleges, and proprietary postsecondary institutions. It is distinguished by its emphasis on integrating practical managerial skills development with a broad understanding of issues across the field of higher and postsecondary education. The degree program encourages students to choose a sequence of courses resulting in an emphasis on student personnel services, policy, or management.

Admission Requirements

Note that to be considered for admission, prospective students must complete the Graduate College online application as well as provide the Department of Educational Leadership the materials it requires. In most cases, the department application materials can be uploaded into the online application; doing so will expedite processing. For more admission information visit the

Graduate College website or website for the master's program in Higher Educational Leadership.

Applicants to the master's in higher education leadership must provide the Graduate College with the following:

1. A completed application form available on the Graduate College website and the non-refundable application fee;
2. One copy of official transcripts from all postsecondary institutions attended. A minimum GPA of 2.75 (4.0 scale) for all undergraduate work or a 3.0 for the last two years of undergraduate work is required.

As part of the faculty review process, students must provide the Department of Educational Leadership with the following:

1. Two letters of recommendation;
2. Professional resume or vita;
3. Statement of interest in the program;
4. Graduate record Examination (GRE) or Graduate Management Admissions Test (GMAT) scores.

Applicants who are interested in being considered for a graduate assistantship will also complete the GA application form located on the UNLV Graduate College website and inform the program graduate coordinator of this interest. Admissions deadline for those interested in a graduate assistance funded through the UNLV Division of Student Affairs is March 15th.

Degree Requirements

The M.Ed in Higher Education Leadership is a 37-credit, non-thesis program. It consists of a six course core curriculum, five elective courses, a three credit internship, and a one credit capstone experience. The capstone enables the candidate to synthesize her/his learning and apply the theory to practice. Please visit the Department of Educational Leadership's Higher Education programs website for more specific information.

Higher Education Leadership Ph.D.

The Doctor of Philosophy in Higher Education Leadership embraces the concept that successful higher educational leaders must be well-informed individuals who use professional context in combination with theory, research and data to guide their decision-making. The objectives of the program are to: 1) prepare students for positions of leadership in institutions of higher education and other learning and policy development environments; and 2) assist advanced graduate 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.

The Higher Education Leadership Program in coordination with the UNLV Boyd School of Law offers a dual JD/Ph.D. degree. Students interested in the dual program should alert Graduate School admission personnel when commencing the admission process. A dual program candidate must complete the Graduate School, Law School and Higher Education Leadership Program admission process 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 Masters 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 Leadership 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 Leadership 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 Degree Program should alert the Higher Education Leadership Ph.D. Admissions Coordinator so that consultation on the admissions process can be initiated.

Admission Requirements

Entrance to the Ph.D. program requires candidates to complete three steps. Current application deadlines are posted on the website.

Prospective students must first apply for admission through the university's Graduate College. After completing an initial evaluation, the Graduate College forwards all of the materials to the Department of Educational Leadership for review.

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 submit directly to the Department of Educational Leadership include:

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 seven years old;
5. Three letters of nomination/ professional reference;
6. Evidence of writing ability; see the website for specifics.

In the final step after reviewing all material, viable candidates will be invited for an interview with department faculty members. 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 of Educational Leadership'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 coordinator of their interest in the program.

Degree Requirements

This terminal degree requires students to complete a minimum of 72 semester hours of course work beyond the earned master's degree, including the dissertation. The residency requirement is met following the completion of the first part of the doctoral core comprehensive examination by completing these outcomes:

- Completion of remaining course work including research courses and electives;
 - Completion of Part II of the doctoral examination; and,
 - Completion of a national presentation and/or manuscript submitted for publication.
- EDH 790 - Doctoral Internship
 - EDH 796 - Dissertation Proposal Preparation

Other Requirements

Completion of remaining course work can be accomplished by incorporating up to two independent study projects. An independent study can substitute for one research requirement or as an elective. A student may also use three credits of dissertation hours: (EDH 799 - Dissertation) toward the residency. Completion of the national presentation and/or submission of a manuscript for publication can be completed before or during the time in which students have enrolled for the first three credits of the dissertation.

The 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.

Program requirements include an 15 credit content core, 18 credit research core, 21 credit of specialization, and 18 credits of internship (3) and dissertation (15). Students can elect to specialize in any of three stands: Higher education leadership, including community colleges; higher education policy; and student services administration, including student learning and program assessment.

Ph.D. Emphasis in Workplace Learning and Performance.

Refer to the Ph.D. in Higher Education Leadership listed above for information about the program strand in Workforce Education and Development.

Workforce Education & Development M.S. or M.Ed.

Coordinator: Dr. Cecilia Maldonado-Daniels

The Workforce Education and Development program offers the following concentrations for the Master of Education and/or Master of Science degree:

Concentration I: Teaching & Leadership (M.S. or M.Ed.).

This concentration is designed to provide persons who have technical backgrounds the foundation for teaching in secondary and postsecondary environments and/or directing and developing programs. The program is geared toward those interested in teaching at public, for-profit, and community colleges and those who develop programs or manage agencies that focus on workforce development.

Concentration II: Workplace Learning & Performance (formally Training) (M.S. or M.Ed.)

This concentration is designed to provide persons with interest in training and related fields the foundation skills for roles specific to facilitating, designing and developing, and measuring and evaluating training environments. The program is geared toward persons interested in becoming training professionals, curriculum designers, program developers, and training generalists.

Concentration III: Graduate Licensure in Workforce Education (M.Ed.).

This concentration provides initial teacher licensure preparation for individuals who already possess an undergraduate degree in a workforce education subject area and wish to become a secondary teacher in Nevada.

Admission Requirements

Applicants for admission must provide the department with the following materials:

1. A bachelors 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. Professional resume or vita;
5. Verification of professional experience;
6. Submission of an official copy of the Graduate Record Examination (GRE) or Miller's Analogy Test (MAT);
7. A minimum GPA of 2.75 (4.0) for all undergraduate work or a 3.0 for the last two years of undergraduate work;
8. Statement of interest;
9. Writing sample;
10. Indication of interest in a graduate assistantship when applicable.

In addition, applicants must provide the Graduate College with the following:

1. Application forms, fees;
2. Official transcripts of all college level work.

Degree Requirements

Program requirements for the M.Ed. degree requires successful completion of a minimum of 36 credit hours of study according to the respective curriculum options, with a minimum GPA of 3.00 for all combined graduate course work followed by successful completion of a written comprehensive examination or a professional paper/project.

The M.S. degree option requires a minimum of 39 credit hours of study according to the respective curriculum options with a minimum GPA of 3.00 for all combined graduate course work followed by successful completion and oral defense of a thesis.

NOTE: See faculty for specific concentration requirements. Specific information on the Department of Educational Leadership's Workforce Education and Development Program, is available on the website.

Course Descriptions

EDH 602 - Strategic 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. Note: (Master's Program)

EDH 604 - Executive 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. Note: (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. Note: Master's program

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 Note: (Master's Program)

EDH 609 - Leading Multicultural 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 Note: Only one credit may count toward degree plan. Grading S/F grading. (Master's Program)

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 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. Note: Repeatable to six credits. Grading S/F grading only.

EDH 691 - Masters Independent Study

Credits 3

Research in area of unique interest in college student personnel work. Research conducted in cooperation with instructor. Note: 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 - Foundations of American Higher Education

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. Note: May be repeated to a maximum of six credits. **Prerequisites:** Consent of instructor.

EDH 733 - Role of Faculty in Higher Education

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 - Advanced Public Policy in Higher and Postsecondary 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. Note: 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. Note: 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. Note: 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.

EDA 700 - Special Problems in Educational Administration

Credits 1 – 6

Specialized areas of instruction in educational administration designed to emphasize understanding and depth in current administrative procedures. Note: Maximum of six credits toward a degree accepted in any approved special problems courses in the College of Education.

EDA 701 - Introduction to Educational Administration

Credits 3

Study of the structure of American education, including administrative concepts and forces that affect the administrative role.

EDA 704 - Organization and Administration of Secondary Schools

Credits 3

Study of the organization and administration of the secondary school, including middle, intermediate, and junior high school levels. **Prerequisites:** EDA 701 or consent of instructor.

EDA 705 - Field Experience in Educational Administration

Credits 1 – 3

Allows graduate students to participate and observe within the school administrative setting. Open only to, and required of, students pursuing a master's degree in educational administration. Note: Concurrent enrollment in specific administrative courses required: EDA 702, EDA 710, EDA 740. May be repeated to a maximum of three credits.

EDA 706 - Selected Problems in Educational Administration

Credits 3 – 6

Identification of current problems in administration and development of solution strategies. Note: May be repeated to a maximum of six credits.

EDA 707 - Critique of Research in the Administrative Process

Credits 3 – 6

Survey and analysis of data pertinent to research in educational management. Note: May be repeated to a maximum of six credits.

EDA 708 - Seminar: Educational Management

Credits 3 – 6

Seminar exploring various aspects of school administration/leadership. Note: May be repeated to a maximum of six credits.

EDA 709 - Readings in Educational Administration

Credits 3

Selected readings germane to the field of administration.

Prerequisites: EDA 701

EDA 710 - Supervision of Instruction

Credits 3

Study of principles, strategies and techniques utilized to evaluate performance and improve instruction in educational settings. **Prerequisites:** EDA 701 or consent of instructor.

EDA 711 - Supervision in the Secondary Schools

Credits 3

Study of principles, strategies, and techniques utilized to evaluate performance and to improve instruction in the middle and secondary schools. **Prerequisites:** EDA 701 or consent of instructor.

EDA 713 - Problem Areas in Educational Supervision

Credits 3 – 6

Group work employed to isolate current problems in supervision and to develop and propose solutions to the specific problems. Note: May be repeated to a maximum of six credits. **Prerequisites:** EDA 701 or 711 or equivalent.

EDA 714 - Critique of Research in the Supervisory Process

Credits 3

Identification, selection, and analysis of research pertinent to the field of supervision.

EDA 715 - Issues in Instructional Leadership

Credits 3

Introduce students to a variety of instructional frameworks from which to base clinical supervision of instructional staff and to improve educational outcomes for diverse student populations. **Prerequisites:** EDA 701

EDA 720 - Public School Finance

Credits 3

Theory and practice of financing public education in the United States. Emphasis on sources of support, methods of distribution, and current practices. **Prerequisites:** EDA 701 or consent of instructor.

EDA 721 - Seminar in School Business Administration

Credits 3 – 6

Principles and practices in budget making and execution; management of internal accounts; development of an effective records system; purchase, distribution, and

management of supplies; and operation and maintenance of the school plant and auxiliary services. Note:

May be repeated to a maximum of six credits.

Prerequisites: EDA 701, 720, and consent of instructor.

EDA 722 - Seminar in Public School Finance

Credits 3

In-depth and advanced study of selected issues and problems in educational finance. **Prerequisites:** EDA 720 and consent of instructor.

EDA 730 - Leading in Diverse Communities

Credits 3

Examines the role of a school and schooling in the growth and development of a dynamic democratic society with a focus on the interrelationship of schools and an ever-changing community. Includes diverse community interests, needs for educating children, practices that build effective collaborative relationships, and strategies that mobilize community resources. **Prerequisites:** EDA 701

EDA 731 - Leaders, Social Justice, and the Public Interest

Credits 3

Explores the concept of social justice in systems that serve increasingly dynamic and diverse populations in the public interest. Through problem-based learning, those committed to social justice, will engage in an examination of the everyday effects of race, class, and culture on equity and diversity within local, national, and global contexts.

EDA 732 - Advancing Equity: Gender and Race Issues in Education

Credits 3

Examines the veracity of critical theories (e.g. critical feminist theory, critical race theory) for the exploration of educational equity issues. A secondary goal is to provide students from a variety of educational settings/backgrounds the opportunity to study an equity issue of interest, using critical perspectives as a methodological lens.

EDA 737 - Readings in Educational Supervision

Credits 3 – 6

Selected readings germane to the field of supervision.

Note: May be repeated to a maximum of six credits.

EDA 738 - Interscholastic and Intercollegiate Athletic Programs

Credits 3

Designed to study educationally relevant aspects of interscholastic and intercollegiate athletic programs. Topics include growth and development of athletic programs, governing bodies, athletics in education, philosophical reform, recurrent problems, athletes and the student movement, Title IX, sport, politics and education, and NCAA compliance. Same as (PED 732)

EDA 740 - Administration and Curriculum Improvement

Credits 3

Clarifies role of the administrator in improving curriculum and instruction in the public schools.

EDA 741 - The Administrator and Ancillary Services

Credits 3

Prepares students for administrative responsibilities of both quantitative and qualitative services provided in schools. The variety of student needs at the school level requires the use of specialists in guidance, social work, psychologists, health personnel, and many other clinicians. Note: Each role must be coordinated within the school operation by the administrator. **Prerequisites:** Consent of instructor.

EDA 742 - Professional Internships in Athletics

Credits 3

Supervised field experience in athletic management. Actual experience working in athletic programs and participating in functions associated with same. Same as (PED 746) Note: May be repeated to a maximum of six credits.

Prerequisites: Admission to program in physical education and approval of advisor.

EDA 745 - Human Dynamics and Organizational Leadership

Credits 3 – 6

Provides students with knowledge, skills and attitudes necessary to undertake leadership responsibilities in complex organizations. Applies concepts and methodologies from the social and behavioral sciences in the analysis of leadership behavior in diverse organizational and community settings. Same as (HOA 745 and BUS 745) Note: May be repeated to a maximum of six credits.

EDA 746 - Public Relations Problems for Schools

Credits 3

Principles and practices pertaining to methods of working effectively with people in the school and community.

EDA 747 - Urban School Administration

Credits 3 – 9

Emphasis placed on administration, development, and organization of areas specific to education in the urban settings. a) Social, political, and power groups within the urban setting. b) Nature of the urban setting utilizing a problem-solving approach. Note: May be repeated to a maximum of nine credits.

EDA 749 - Rural School Administration

Credits 3 – 6

Emphasis placed on administration, development, and organization in areas of specific concern to the administrator in a small school setting. Includes the rural setting in its political and social mode, power structures in the (rural) small school setting, utilizing a directed or problem-solving

approach. Note: May be repeated to a maximum of six credits. **Prerequisites:** Consent of instructor.

EDA 750 - School Personnel Administration

Credits 3

Emphasis on the nature of personnel administration. Organization for handling personnel problems, group processes, and development of personnel policies relating to salary and working assignments, in-service improvement, and professional relations. **Prerequisites:** EDA 701 and consent of instructor.

EDA 751 - Public School Negotiations

Credits 3

Statutory provisions, personnel policies, staff and administrative responsibilities in the professional negotiation process. **Prerequisites:** Consent of instructor.

EDA 755 - School Law: Cases, Concepts, and Practice

Credits 3

Designed to inform students of various legal authorities and their impact on education and administrative practice. Scope includes various legal dictates from constitutions, cases, policies, and opinions. **Prerequisites:** EDA 701 or consent of instructor.

EDA 762 - The Educational Plant: Surveys and Facilities

Credits 3

Studies master planning, educational surveys, site selection, specifications, and construction of school plants. Variety of activities provided to encompass aspects of equipment and ongoing maintenance of educational facilities.

Prerequisites: EDA 701 or consent of instructor.

EDA 770 - Individual Instruction in Educational Administration

Credits 3 – 6

Provides opportunity for graduate students to select, delimit, and research problems in educational administration.

Note: May be repeated to a maximum of six credits.

EDA 771 - Seminar in Educational Administration

Credits 1 – 6

Designed for graduate students preparing for leadership positions in public schools. a) Curriculum. b) Administration. c) Supervision. d) Evaluation. e) Advanced Methodology. f) Research. g) Public Relations. h) Finance. i) School Plant. j) Professional Negotiations. k) School Law. l) Materials for Simulation. m) School Personnel.

Note: Variable credits determined by consent of instructor.

EDA 772 - Seminar in Supervision for Administrators in Various Roles

Credits 3 – 6

Designed for graduate students preparing for, or occupying, leadership roles in private and public education,

professional schools, and educationally related enterprises. a) Elementary School, b) Middle and/or Junior High School, c) High School, d) Higher Education, e) Director, f) In-service Education. Note: The above sections may be taken for three credits each with a maximum of six credits utilized.

EDA 773 - Seminar: Constructs of Theory in Educational Administration

Credits 3 – 6

Designed to enable teachers and administrators to understand theory and to apply theory in problem solving.

EDA 774 - Advanced Seminar: Topics in School Management

Credits 3 – 6

Specific topic selected from a school management area. In-depth study provided to post-master's students who seek to explore and refine further their administrative skills. Topics to be announced. Note: May be repeated to a maximum of six credits. **Prerequisites:** Consent of instructor.

EDA 775 - Educational Futures and Educational Administration

Credits 3

Consideration of futurist thoughts, theories, processes, and predications as these may serve to influence the process of administering public education in tomorrow's schools.

EDA 780 - Organization and Administration of Vocational Education

Credits 3

Treatment given to the organization and administration of the special field of vocational education in secondary schools and adult vocational programs.

EDA 781 - Individual Instruction in Adult and Teacher Education

Credits 3 – 6

Selected basic problems related to teaching at the college or university level as well as adult education programs.

Includes areas such as administration, supervision, evaluation, research, public relations, finance, school plant.

Note: May be repeated to a maximum of six credits with consent of instructor.

EDA 782 - Seminar in Teacher Education

Credits 3 – 6

Enables students interested in professional work in colleges and universities to select appropriate topics for in-depth study. a) Administration. b) Supervision. c) Evaluation. d) Research. e) Public Relations. f) Finance. g) School Plant. m) School Personnel. n) Curriculum. Note: May be repeated to a maximum of six credits with consent of instructor.

EDA 785 - Administering Schools in a Political Climate

Credits 3

Enables students to understand the political process in administration, to develop strategies for coping in a political climate, and to utilize concepts of power and influence in the school community.

EDA 788 - Independent Study in the Doctoral Program

Credits 1 – 6

Provides the opportunity for a doctoral degree student to select and study a particular area of concentration with mutual approval of the instructor.

EDA 789 - Introduction to Computing for School Administrators

Credits 1 – 3

Survey of the current instructional and administrative uses of microcomputers in K-12 schools. Includes instruction in fundamentals of computer operation, classification of software, purchasing and management topics, and issues related to implementation and faculty development.

EDA 790 - Internship

Credits 3 – 9

Individually structured program in which the student is given an assignment in an administrative unit under joint supervision of an educational administrator and a university faculty member. **Prerequisites:** Consent of instructor.

EDA 791 - Practicum in Educational Administration

Credits 3 – 12

Designed to permit a post-master's student, or one who currently occupies a position of leadership, to function in a supervised setting. Open primarily to doctoral students or others if deemed appropriate by the advisor. Note: May be repeated to a maximum of 12 credits. **Prerequisites:** Consent of advisor and department.

EDA 792 - Organization and Administration of Schools

Credits 3

Study of the organization and administration of schools including elementary, middle, junior and high schools. Formerly EDA 702 **Prerequisites:** EDA 701 or consent of instructor.

EDA 796 - Prospectus for Dissertation

Credits 3

Selection and preparation of an experience acceptable to and appropriate for the student, program, and advisor. Note: Open to doctoral students only. **Prerequisites:** Consent of advisor.

EDA 797 - Professional Paper

Credits 3

Grading S/F grading only.

EDA 799 - Dissertation

Credits 3 – 24

Preparation of an appropriate document utilizing salient features which best portray the experience selected in EDA 796 and offers data in the form found most suitable for defense before a panel or committee should it be required. Note: Open only to doctoral students. A minimum of 12 hours required; a maximum of 24 credits allowable. May be taken in three-credit hour increments. **Prerequisites:** EDA 796 and consent of advisor.

EDW 530 - Tools for Success in Secondary Workforce Education

Credits 3

Combination of workshops presented by UNLV and School District personnel covering relevant and timely topics deemed important for 1st year Workforce Education teachers. Class meets monthly throughout the school year. Formerly (EDW 739) Note: Course open only to currently employed secondary Workforce Education teachers.

Prerequisites: Consent of instructor.

EDW 539 - Methods of Teaching in Workforce Education

Credits 1 – 6

Primarily for students who have completed undergraduate methods courses. Research projects required for each student in his or her field of special interest. a) Secondary. b) Postsecondary. Formerly (EDW 712) Note: May be repeated to a maximum of six credits.

EDW 571 - Advising Career and Technical Student Organizations (CTSO)

Credits 3

Introduces career and technical teachers to all aspects of career and technical education youth organizations, thus providing them with a broad background for integrating these concepts and principles into their classroom instruction. Same as (EDCT 471)

EDW 575 - Performance-Based Education

Credits 3

Introduction to work-based learning programs for secondary and postsecondary career and technical education students. Emphasis on student career planning strategies along with the utilization of appropriate supervised work sites for the development of competitive employment skills, knowledge and dispositions.

Formerly (EDW 704) **Prerequisites:** Three credits in instructional methodology or consent of instructor.

EDW 597 - Workforce Education Externship

Credits 1 – 3

Class based upon student reflections of site-based experiences. Formerly (EDW 731) Note: Requires a minimum of 50 hours in a work site placement. May be repeated to a maximum of six credits.

EDW 700 - Special Problems in Workforce Education

Credits 1 – 6

Designed to develop depth in understanding a current educational topic for the in-service teacher. Note: Maximum of six credits accepted toward a degree from special topics courses.

EDW 719 - Leadership in Workforce Education and Development

Credits 3

Provides insight into the administration and supervision of workforce education programs. Emphasis on establishing role of the workforce administrator/supervisor and development of modern management and personal interactions skills.

EDW 730 - Introduction to Workforce Education

Credits 3

Overview of history, philosophy and areas within the workforce education field.

EDW 732 - Human Resource Management in WLF

Credits 3

Covers the functions and roles of human resource management for workplace learning and performance practitioners.

EDW 733 - Workforce Education Curriculum and Program Development

Credits 3

Comprehensive program development and implementation and curricular integration of career education in the high school, postsecondary and adult education settings. Includes selection and evaluation of career and technical education materials.

EDW 734 - Needs Assessment

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.

EDW 735 - Practicum in Workforce Education

Credits 3

Contemporary public school workforce education settings. Includes structured field experience and campus-based instruction. **Prerequisites:** EDW 712 or equivalent or consent of instructor.

EDW 736 - Training Program Development

Credits 3

Provide concepts, models, and techniques for designing and developing training programs.

EDW 737 - Facilitation Skills for Workplace Learning and Performance

Credits 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.

EDW 738 - Curriculum Laboratory in Secondary, Postsecondary, and Vocational Education

Credits 3

Laboratory work in construction of specific instructional units with objectives, content, materials, procedures, and evaluation designed to implement research findings.

Emphasis according to individual interest. **Prerequisites:** ICS 703

EDW 740 - Technologies for Improving Human Performance

Credits 3

Concepts and applications of technology-assisted methods for facilitating and delivering instruction in a variety of workforce education and development settings.

EDW 741 - Advanced Training Program Development

Credits 3

Theory, concepts, models, techniques and practices of program development and management as applied to workplace learning and performance. Focus on macro issues in designing, developing, implementing and managing various WLP interventions including distance learning, e-learning, and other learning system and interventions.

Prerequisites: EDW 736

EDW 742 - Policies and Practices in Workforce Training and Development

Credits 3

Introduction to major concepts, skills, and techniques required by corporate, business, industry trainers to facilitate and support organizational change. Explores models and methods for analyzing policies for corporate training and development. Formerly (EDW 714)

EDW 745 - Theories of Adult Learning

Credits 3

Overview of adult education to give an understanding of adults as learners as well as the history, philosophy, and nature of adult education. Includes exposure to fundamental adult education concepts such as lifelong learning, self-directed learning, and contract learning.

EDW 746 - History and Development of Two Year Postsecondary Institution

Credits 3

Focuses on the history, development, aims, and objectives of the American educational institution, the community

college. Two year colleges in the U.S. are examined in the context of their history, philosophy, unique processes, curriculum, governance structures, and student characteristics.

EDW 747 - Workforce Education Teaching

Credits 3

Introduction to the theories and practices for teaching and learning in work-force education settings. Course focuses on teaching methods and strategies, organization of curriculum, and competency-based evaluation techniques.

EDW 748 - Internship in Workforce Education

Credits 3 – 6

Supervised internship in a training, professional teaching or administrative settings. Required 80 hours. Note: Students will be required to complete a total of eighty hours.

Prerequisites: Minimum completion of twenty seven credits in program.

EDW 749 - Evaluation of Workforce Education Programs

Credits 3

Understanding of concepts, models, and theories related to evaluation of programs and organizations in workforce education and development. Note: Course requires eighty hours at internship site. **Prerequisites:** Completion of twenty seven credits in program.

EDW 755 - Professional Seminar in Workforce Education

Credits 3

Various contemporary workforce education issues and topics analyzed from the perspective of the classroom teacher. Topics include diversity in the classroom, resource and funding issues, social, economic and demographic concepts, program management, and strategic planning.

EDW 759 - Special Topics in Workforce Education

Credits 1 – 3

Contemporary issues and practices in workforce education and development are examined.

EDW 763 - Readings in Postsecondary Education, Workplace Learning and Performance, and Workforce Education Leadership

Credits 3

Acquaints advanced students with major recent issues in postsecondary and workforce education. Review and critique of current research.

EDW 765 - Fiscal Management and Administration of Workforce Programs

Credits 3

Focus on leadership skills necessary for the management and administration of workforce education programs.

Discussions around linkages with community and economic development initiatives will be included.

EDW 767 - Review and Analysis of Policies in Workforce Education

Credits 3

Focuses on federal, state and local policies related to workforce education, its ties to local workforce initiatives and grants as well as assessment and accreditation of programs.

EDW 768 - Grantsmanship in Education

Credits 3

Designed to acquaint educators and social science professionals with the knowledge and skills involved in grant proposal writing for Federal, State, and private competitive funding. Engages participants in the development, planning and writing of the original grant proposals. **Prerequisites:** Graduate standing.

EDW 771 - Workforce Education Leadership Conference

Credits 1 – 6

Students will attend and participate in approved State and/or National leadership conferences concerning career and technical education/ workforce education and development. Presentations of timely topics, new techniques and curriculum, latest equipment and software, funding, and legislative issues, etc. will be addressed

EDW 772 - Seminar in Workforce Education

Credits 3

Designed to prepare students to complete their professional papers, projects of thesis. **Prerequisites:** EPY 702

EDW 774 - Professional Paper/Project in Workforce Education

Credits 1 – 3

Capstone course for students pursuing the M.Ed. Grading S/F grading only. **Prerequisites:** Completion of thirty credits in program including EDW 772.

EDW 775 - Thesis

Credits 3

Capstone course for students pursuing the M.S. Note: May be repeated for a maximum of six credits. Grading S/F grading only. **Prerequisites:** Completion of thirty credits in program including EDW 772.

EDW 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 through the study of accepted theory and applied principles.

EDW 785 - Global and Diversity Perspectives in the Workforce Education

Credits 3

Examines human resource management trends and the challenges a global workforce poses for human resource practices and discusses the leadership and managerial skills needed to lead such an organization. **Prerequisites:** Consent of instructor.

EDW 786 - Critique of Research in Workforce Education

Credits 3

Survey and critique of research in workforce education and development.

EDW 787 - Organization Development & Change: Theories to Practice

Credits 3

Overview of theories and research on organizations and managing change within them. **Prerequisites:** EDW 732

EDW 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.

EDW 789 - Educational Leadership Practicum

Credits 3

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. Note: May be repeated to a maximum of six credits.

EDW 796 - Workforce Education 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.

Prerequisites: Completion of all core courses, and completion of qualifying/comprehensive exam.

EDW 799 - Doctoral Dissertation

Credits 1 - 12

Research analysis and writing toward completion of dissertation and subsequent defense. Twelve credits are required for the degree, may be repeated, but only twelve credits will be applied to the students degree program. Note: 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 EDW 796 and approval by the department.

Educational Psychology

Chair

Jones, W. Paul

(1987), Professor; B.A., M.A., Eastern New Mexico University; Ed.D., New Mexico State University.

Graduate Coordinator

Loe, Scott A.

(2003), Associate Professor; B.S., Arizona State University; M.A., Ph.D., The Ohio State University.

Graduate Faculty

Bendixen, Lisa

(1999), Associate Professor; B.A., Creighton University; M.A., Ph.D., University of Nebraska-Lincoln.

Corkill, Alice Jane

(1992), Associate Professor; B.A., M.A., Ph.D., University of Nebraska.

Crank, Joe

(1989), Associate Professor, B.A., Southern Illinois University at Carbondale; M.S., Illinois State University; Ph.D., University of Kansas.

Hong, Eunsook

(1990), Professor; B.A., Hansung University (Seoul); M.S., Ph.D., University of Southern California.

Kardash, CarolAnne M.

(2001), Professor; B.A., Le Moyne College; M.S., College of St. Rose; Ph.D., Arizona State University.

Krach, Kathleen

(2005) Assistant Professor; B.A., University of Georgia; M.A., Ed.S., Ph.D., Texas A&M.

Marchand, Gwen

(2008), Assistant Professor; B.A., Rockhurst University; M.S., Ph.D., Portland State University.

Nathanson, Rebecca

(2000), Associate Professor; B.A., University of California, Los Angeles; M.A., Ph.D., University of California, Santa Barbara.

Nussbaum, E. Michael

(1999), Associate Professor; B.A., Pitzer College; M.P.P., University of California, Berkeley; Ph.D., Stanford University.

Olafson, Lori

(1999), Associate Professor; B.A., University of Saskatchewan; B.Ed., M.A., Ph.D., University of Calgary.

Putney, LeAnn G.

(1997), Associate Professor; B.A., Indiana State University; M.S., California State University; Ph.D., University of California, Santa Barbara.

Reynolds, Ralph E.

(2000), Professor; B.S., University of Wisconsin; M.S., Arizona State University; Ph.D., University of Illinois.

Schraw, Gregory
(2000), Professor; B.A., University of Illinois; M.S.,
Ph.D., University of Utah.

Sinatra, Gale M.
(2000), Professor; B.S., M.S., Ph.D., University of
Massachusetts.

Taasoobshirazi, Gita
(2007), Assistant Professor; B.A. Emroy University,
M.A., Ph.D., University of Georgia.

Professors Emeriti

Crehan, Kevin
(1975-2009), Emeritus Professor; B.A., Ph.D., State
University of New York, Buffalo.

Kirschner, Sr., Frederick
(1969-1999), Emeritus Professor; B.S., M.Ed., Ed.D.,
University of Toledo.

Trione, Verdun
(1966-1986), Emeritus Professor; B.A., Roosevelt
University; M.A., DePaul University; Ed.D., University
of California, Berkeley.

The Department of Educational Psychology is dedicated to understanding psychological processes that support learning and the application of principles of psychology to classroom instruction. The department offers a Master of Science degree in Educational Psychology, an Education Specialist degree in School Psychology, and two Ph.D. programs.

The Master of Science degree in Educational Psychology is designed for the student seeking advanced studies in psychological foundations with the opportunity for specialized study in appropriate areas of interest, including the practice of instruction. The Education Specialist degree in School Psychology prepares professional school psychologists. This degree requires a minimum of 66 graduate semester credits, enables the student to practice as a school psychologist in Nevada, and provides preparation for national certification. This Ed.S., approved by the National Association of School Psychologists, integrates theory and research to applied skills for working in schools and other agencies.

The Ph.D. in Learning and Technology is designed to enable students to become independent scholars, who are able to make significant contributions to knowledge in the discipline of educational psychology and the field of educational technology. The Ph.D. in Educational Psychology prepares independent scholars to make significant contributions to knowledge in specialized areas of educational psychology. Students complete a core of research and learning theory courses, a specialization strand, and an emphasis area. Specialization strands within this Ph.D. are available in foundations (assessment, program evaluation, research, and learning in school domains), school counselor education, and school psychology. The department welcomes applications from individuals interested in doctoral studies in specializations in the

science of Educational Psychology. Information is available on the website.

Application Deadline

Applications for all programs will be considered once a year. The deadline for receipt of applications is February 1. Application packets may be obtained from the department office, College of Education, Carlson Education Building, Room 221. Applications are also available online.

Applicants may be admitted under a provisional status if they are deficient in no more than two of the admission requirements. If the applicant is admitted under provisional status, nine hours of course work assigned by the Admissions Committee must be successfully completed. Graduate students in Educational Psychology programs must meet all particular program requirements. Failure to successfully meet the requirements within program timelines may result in probationary status and/or removal from the applicable program. For more information concerning admissions, contact the department.

Education Specialist in School Psychology

The School Psychology Program is a Specialist in Education (Ed.S.) offered in the Department of Educational Psychology, College of Education. The program 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. Contact the Educational Psychology Department for more information.

Educational Psychology & Juris Doctor Dual Ph.D./J.D.

The Dual Juris Doctor (JD)/Doctor of Philosophy (Ph.D.) in Education degree was approved in July 2007. Visit the website for complete information or contact Dr. Rebecca Nathanson rebecca.nathanson@unlv.edu (702) 895-5363 or the EPY office at (702) 895-3253.

Educational Psychology M.S.

The Master of Science in 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. 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. The culminating experience for the M.S. degree is the defense of the students' master's thesis or completion of an internship with a written comprehensive examination or professional paper.

Admission Requirements

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:

Department application

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)

1. Three letters of recommendation
2. One writing sample
3. Transcripts from all colleges and universities attended
4. Graduate College application is available online

Educational Psychology Ph.D.

The Ph.D. in Educational Psychology 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.

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

Degree Requirements

The Ph.D. in Educational Psychology requires 67 credits beyond the master's degree. Of the 67 credits, 25 are in courses shared with other doctoral programs in the department. All strands have a requirement of one credit of proseminar, 15 credits in research methods, 9 in learning theory, 12 in a required emphasis area, and 12 directed toward dissertation completion. The school counselor education strand requires an additional 18 credits in advanced school counselor education coursework. The

school psychology strand requires 18 credits in advanced school psychology coursework. The foundations strand requires 18 credits in coursework tailored for the area of focus in the strand. Individual programs of study may exceed the minimum requirements.

All students must have a master's equivalent degree to be considered for admission. 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. Students in the school counselor education strand enter with 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. For the school psychology strand, students without a master's degree must first be admitted to the Ed.S. program. 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.

Publication Requirement

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 acknowledgement, and (c) a completed Review I form from the supervising faculty member.

Preliminary Examination

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.

Dissertation Proposals and Defenses

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.

Learning & Technology Ph.D.

The Ph.D. in Learning and Technology 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).

The doctoral program is interdisciplinary in that it involves faculty from two distinct fields and departments: Educational Psychology and the Educational Computing and Technology Area in the Department of Curriculum and Instruction. This unique collaboration results in a doctoral program built on diverse areas of expertise. Students will graduate with a specialization in educational psychology with an emphasis on using research as a tool for promoting effective learning in electronic learning environments.

Admission Requirements

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

Degree Requirements

The Ph.D. in Learning and Technology will consist of 67 credits beyond the master's degree. Of the 67 credits, 37 will be required courses in learning theory, technology, and research methods, 18 will be electives, and 12 will be directed toward dissertation completion. Individual programs of study may exceed the minimum requirements and specific course work will vary depending on particular areas of interest. Student must maintain a GPA of 3.00 or higher for all course work taken at the doctoral level. 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.

Publication Requirement

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 acknowledgement, and (c) a completed Review I form from the supervising faculty member.

Preliminary Examination

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.

Dissertation Proposals and Defenses

After successfully completing the publication 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.

Course Descriptions

EPY 699 - Special Topics

Note: 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. Credit at the 600 level normally 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. Note: 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. Note:

May be repeated to a maximum of two credits.

Prerequisite: 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.

Prerequisite: 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. **Prerequisite:** 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. **Prerequisite:** 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. **Prerequisite:** 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. **Prerequisite:** 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. Note: Students are strongly encouraged to complete EPY 711 prior to enrolling in this course.

Prerequisite: EPY 702 and 721 (may be taken concurrently).

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. Note: Field work using qualitative methods required. **Prerequisite:** 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. Note: Field work using qualitative methods may be required. **Prerequisite:** EPY 702 and EPY 718

EPY 720 - Research Design in Education

Credits 3

Principles of research design as applied to empirical data with particular emphasis on quantitative data analysis and interpretation. Includes research design, data collection, data analysis and research report. **Prerequisite:** Epy 702, EPY 721 and consent of instructor.

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. **Prerequisite:** 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. **Prerequisite:** 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. **Prerequisite:** EPY 721, 722, 723 (EPY 722 may be taken concurrently).

EPY 725 - Item Response Theory and Applications

Credits 3

Introduction to item response theory (IRT) and applications. Models and assumptions, item parameter and person ability estimation, scale construction and selected computer applications of IRT to educational measurement.

Prerequisite: EPY 723 and EPY 724**EPY 726 - Advanced Evaluation Research Methods**

Credits 3

Addresses application of evaluation research theory and methods through a project-bases curriculum in order to provide in-depth examination of essential elements of the evaluation process. **Prerequisite:** 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. **Prerequisite:** 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. **Prerequisite:** 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. **Prerequisite:** EPY 702, EPY 721, and EPY 722 (EPY 722 may be taken concurrently).

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. **Prerequisite:** 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.

Prerequisite: 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. **Prerequisite:** 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 - Interpretive Analysis of Text and Discourse

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. **Prerequisite:** EPY 702 or 703 and EPY 718, or equivalent.

EPY 741 - Essential Relationship Skills for College Teaching

Credits 3

Focuses on developing helping relationships between educators and adult learners. Presents conceptual basis for theories of effective helping, communication skills, conditions and issues affecting helping relationships, educator as reflective practitioner, and self-motivation in adult learners, providing a forum for interdisciplinary interaction common to all helping professionals.

Note: May be repeated to a maximum of six credits.

Prerequisite: Graduate standing.

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. Note: Project involving analysis of the student's own research data may be required. **Prerequisite:** 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. **Prerequisite:** 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. Note: Practical skill development emphasized. **Prerequisite:** EPY 721, EPY 722, and EPY 732.

EPY 749 - Thesis

Credits 3 – 6

Note: May be repeated but only six credits applied to the student's program. Grading S/F grading only. **Prerequisite:** 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. **Prerequisite:** 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) **Prerequisite:** 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. **Prerequisite:** 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. **Prerequisite:** 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.

Prerequisite: 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.

Prerequisite: 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. Note: 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. Note: May be repeated to a maximum of 12 credits. **Prerequisite:** 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. Note: 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. Note: May be repeated to a maximum of six credits. **Prerequisite:** 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.

Prerequisite: EPY 723 or EPY 767 and consent of instructor.

EPY 786 - Applied Systems in EPY

Credits 1 – 4

Application of systems approach for evaluation of student personnel services. Note: May be repeated to a maximum

of four credits. **Prerequisite:** EPY 702, EPC 713 or equivalent.

EPY 787 - Individual Research

Credits 1 – 7

Selected basic problems in personnel services.

Prerequisite: 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. Note: May be repeated to a maximum of six credits. **Prerequisite:** 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. **Prerequisite:** 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. **Prerequisite:** 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. Note: May be repeated to a maximum of twelve credits. **Prerequisite:** Consent of instructor.

EPY 793 - Advanced Doctoral Practicum

Credits 3 – 6

Advanced practice supervised experience for doctoral students in school psychology and counseling. Note: May be repeated to a total of six credits. **Prerequisite:** Consent of instructor.

EPY 794 - Internship

Credits 3 – 6

Final activity intended to provide on-the-job experience in developing related competencies. Note: May be repeated to a maximum of six credits. **Prerequisite:** 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. Note: May be repeated but only a maximum of 24 credits may be applied towards degree. Grading S/F grading only.

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. **Prerequisite:** 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. **Prerequisite:** 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.

Prerequisite: 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) **Prerequisite:** 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. **Prerequisite:** 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. **Prerequisite:** 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. **Prerequisite:** Consent of instructor.

EPP 762 - School Psychology Intervention with Practicum

Credits 3

Supervised practice with children in school and clinic settings with intervention recommendations. **Prerequisite:** 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. **Prerequisite:** 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. Note: May be repeated to a maximum of four credits. **Prerequisite:** 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. **Prerequisite:** 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. **Prerequisite:** Admission to program and consent of instructor.

EPP 769 - Internship in School Psychology

Credits 3

Supervised school-based experience as a school psychologist intern. Note: May be repeated to a maximum of six credits. **Prerequisite:** 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. Note: May be repeated to a maximum of six credits. **Prerequisite:** Consent of instructor.

Special Education

Chair

Pierce, Thomas B.

(1990), Professor; B.S., State University of New York, Fredonia; Ph.D., University of New Mexico.

Doctoral Graduate Coordinator

Miller, Susan

(1991), Professor; B.S., Florida Southern College; M.Ed., Ph.D., University of Florida.

Master's Graduate Coordinator

Tannock, Michelle T.

(2006), Assistant Professor; B.A., M.Ed., Ph.D. University of Victoria.

Graduate Faculty

Babbitt, Beatrice

(1988), Associate Professor; B.A., College of Saint Teresa; M.S., University of Wisconsin, Eau Claire; Ph.D., University of California, Los Angeles.

Campbell, Pam

(2001), Associate Professor, B.A., University of Massachusetts; M.Ed., Boston College; Ph.D., University of Florida.

Filler, John

(1989), Professor; B.A., Randolph Macon College; M.A., Wake Forest University; Ph.D., Vanderbilt University.

Gelfer, Jeffrey

(1989), Professor; B.A., Wilmington College; M.S., University of Oregon; Ph.D., Florida State University.

Grant, David

(2008), Assistant Professor; B.S., Saint Louis University; M.S., Ph.D., University of Central Florida.

Hannah, Deidre

(2009), Assistant Professor; B.A., Southern Illinois University; M.A., University of Urbana-Champaign; Ph.D., University of Washington.

Higgins, Amanda Kyle

(1991), Professor; B.A., M.A., Ph.D., University of New Mexico.

Lyons, Catherine

(2007), Assistant Professor; B.S., St. Francis College; M.Ed., Ph.D., University of Nevada, Las Vegas

Sayeski, Kristen L.

(2007), Assistant Professor; B.S., M.Ed., University of Florida; Ph.D., University of Virginia.

Sileo, Nancy M.

(1998), Associate Professor; B.A., National University; M.Ed., University of Hawaii, Manoa; Ed.D., University of Northern Colorado.

Strawser, Sherri

(1991), Associate Professor; B.S., Indiana University; M.S., Saint Francis College; Ph.D., University of Utah.

Whitby, Peggy

(2009), Assistant Professor; B.A., St. Cloud State University; M.A., University of Houston, Clear Lake; Ph.D., University of Central Florida.

Professors Emeriti

Beals, Mark

(1969-1992), Emeritus Professor; B.A., Lycoming College; M.A., University of Hawaii; Ph.D., University of Arizona.

Dette, Judith H.

(1973-1992), Emeritus Professor; B.S., M.A., Ohio State University; Ed.D., University of New Mexico.

Dil, Nasim

(1977-2006), Emeritus Professor; M.A., University of Panjab Lahore, Pakistan; M.S., Ph.D., Indiana University.

Healey, William C.

(1993-2002), Emeritus Professor; B.S., M.A., Ph.D., University of Missouri.

Kelly, Edward J.

(1969-2001), Emeritus Professor; B.S., Santa Clara University; M.S., Ed.D., University of Oregon.

Ruegamer, Lynne C.

(1973-1997), Emeritus Associate Professor; B.A., University of Montana; M.A., Eastern Montana College; Ed.D., University of Idaho.

Van Vactor, John C.

(1971-1996), Emeritus Associate Professor; B.A., M.S., Butler University; Ph.D., Purdue University.

Wagoner, Bill R.

(1971-1998), Emeritus Professor; B.A., Wichita State University; M.S., Emporia State Teachers College; Ed.D., University of Kansas.

The Department of Special Education offers graduate degree programs at the master's, specialist, and doctoral levels. All Special Education graduate programs are designed to provide the professional experiences required by teachers, specialists, administrators, and future professors of special education.

Special Education M.Ed./M.S.

Admission Requirements

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 Special Education. 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 that includes the names and contact information of 3 professional or academic references.

Applications are processed when all credentials required by both the Graduate College and the Department of Special Education 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).

Advisor Assignment and Program of Studies
The Graduate College will mail official written notification of acceptance. In addition, a letter will be mailed from the Department of Special Education identifying the advisor. Students are responsible for contacting their advisors.

Degree Requirements

All graduate students are held responsible for the requirements and academic policies established by the Graduate College and outlined in catalog. In addition, the Special Education Department has established requirements for each of its degree offerings. While these requirements may be obtained from an academic advisor, they are briefly outlined here.

All master's degree programs require a minimum of 36 semester hours of approved studies and an overall minimum GPA of 3.00 in all courses counted toward the degree. A thesis and its defense are the culminating activity for the M.S. A comprehensive examination is the culminating activity for the M.Ed.

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.

Degree Requirements: Master of Education

The M.Ed. degree requires at least 36-semester credit hours. Students must complete a minimum of 18 credit hours with the ESP or ECE prefix, and complete:

EPY 702 - Research Methods . In addition, students must complete and pass a comprehensive examination. 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 coursework the semester they graduate.

Students must apply to take comprehensive examinations. Specific application deadlines are available in the Department of Special Education.

Degree Requirements: Master of Science

The M.S. degree requires at least 36-semester credit hours, including EPY 702. Students must complete a minimum of 18 credit hours with the ESP prefix. In addition, students must complete and defend a thesis.

Program Options: M.S. and M.Ed.

M.Ed. and M.S. programs can be 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, with or without licensure. Students are expected to develop a plan of study that is most relevant to their educational purposes;

ESP 722 - Multicultural Perspectives in Special Education and EPY 702 - Research Methods are required by the department for all plans of study. 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, Early Childhood Special Education, Emotionally disturbed, Generalist-Mild Disabilities, Gifted and Talented, Learning Disabilities, Mental Retardation, Teaching English as a Second Language; or other professional areas, such as Applied Behavioral Analysis.

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.

Special Education Ed.S.

The Specialist in Education degree program is designed for individuals who possess the ability and desire to pursue graduate work. Each applicant for admission to the Specialist in Education program must comply with Graduate College requirements for admission to graduate standing. Approved graduate credit may be transferred toward the specialist degree after the candidate has been admitted. Admission to this program is based on consideration of the following factors:

1. Biographical data of the candidate including the background of preparation, scholastic record, advanced study, and professional accomplishments.
2. Evidence of professional promise, personal integrity, and success as a teacher or administrator.
3. Evidence of research and writing ability and facility in verbal expression and interpretation of data.
4. Results of specific tests as determined by the departmental committee (i.e., GRE, MAT).

Candidates for the Specialist in Education degree (Ed.S.) are required to complete a minimum of 65 semester hours of graduate course work beyond the bachelor's degree or a minimum of 35 semester hours beyond the master's degree.

Specific requirements include all deficiencies from the master's degree program in the area of the selected specialty. At the committee's discretion, and with its approval, equivalent courses to specific degree requirements may be utilized. Given the needs and abilities of each student, the committee and the individual student determine the number and content of courses in the student's area of specialization.

Students are expected to develop a major program that is most relevant to their education purposes and follow the requirements of their specific areas of emphasis. Minimum course requirements include research and evaluation options. A number of specific program options are available to students, and programs using combinations of various options are encouraged. These program options include:

Areas of Concentration without Endorsements

- a. Administrative and Consultative Operations
- b. Appraisal and Assessment Techniques
- c. Assistive Technology
- d. Parent Training
- e. Research Field Study Programs
- f. Special Curriculum Development
- g. Supervised Field and Internship Experiences

Areas of Emphasis with Endorsements

- a. Early Childhood Special Education
- b. Emotional Disturbance

- c. Learning Disability
- d. Mental Retardation

Special Education Ed.D.

The Doctor of Education (Ed.D.) Program is designed for special educators who desire leadership positions in local education agencies or other community or governmental agencies that provide services to individuals with disabilities. Individuals interested in becoming teacher educators within college and university settings also may select this degree option. Students will complete a course of study that prepares them to apply research findings in an informed manner and also prepares them to conduct applied research and program evaluation.

Admission Requirements

Applicants to the Ed.D. program in special education 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 Ed.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 resumé 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 Special Education. 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.

After Admission Committee review, the Doctoral Program Coordinator may recommend to the department faculty that the applicant be: 1) admitted fully to the Ed.D. program in special education, 2) admitted provisionally to the Ed.D. program, or 3) denied admission to the Ed.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 the Graduate Assistant Application located at <http://graduatecollege.unlv.edu/ga/> and send it to the Department of Special Education.

Residency

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 Special Education. 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.

Program of Study

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:

1. Those not previously used to fulfill requirements for another degree;
2. Those taken while enrolled at an accredited graduate degree granting institution in a degree-granting program;

3. Those taken as a nondegree student (not to exceed 15 total units); and
4. Those for which a grade of B or higher was earned.

In addition, 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 Special Education 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 Special Education (or to another doctoral program in the College of Education) may enroll in ESP 782 (formerly ESP 760) Professional Seminar in Special Education and two additional Core Curriculum Courses with consent of instructor, prior to formal admission. The Department of Special Education generally tailors its leadership programs to meet individual student needs and career goals. A content core of courses, however, is required of all Ed.D. students. This content may not be waived. In addition to the core curriculum, students select concentrations in Leadership and Exceptionality Specialties as appropriate. The requirements for the Ed.D. degree are outlined here.

Degree Requirements

Core Curriculum - Total Semester Hours: 21

Doctoral students must earn a grade of B or higher in all core curriculum courses.

Each doctoral student will complete the core curriculum below:

- ESP 782 - Professional Seminar in Special Education
- ESP 783 - Leadership Seminar in Special Education
- ESP 784 - Seminar in Advanced Special Education Technology
- ESP 785 - Issues, Trends and Futures in Special Education
- ESP 788 - Single Subject Methods in Special Education
- ESP 789 - Grant Writing for Human Services
- ESP 796 - Dissertation Prospectus (To be taken as an independent study supervised by the advisor)

Ed.D. Core Research Work - Total Semester Hours: 6

Doctoral Students must earn a grade of B or higher in EPY 721 and EPY 722.

- EPY 721 - Descriptive and Inferential Statistics: An Introduction
- EPY 722 - Inferential Statistics and Experimental Design
- Leadership Studies - Total Semester Hours: 18*
- Doctoral students complete 18 semester hours including:
 - ESP 786 - Legal and Political Issues in Special Education
 - Programming

Additional leadership courses may be selected 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.

Exceptionality Specialties - Total Semester Hours: 18*

Students complete nine semester hours each in two specialty areas from the following list: Autism, Learning Disabilities, Emotional Disturbance, Mental Retardation, Gifted and Talented Education, Developmental Disabilities/Children at Risk.

Notes: *Hours may be reduced based on student's previous academic preparation related to leadership studies and exceptionality specialties. However, under no circumstances will the Formal Program of Studies include fewer than 72 semester hours.

Teaching or Administration Internship - Total Semester Hours: 3

ESP 794 A-C - Internship in Special Education (B or C)

Writing Proficiency

Students shall be required to demonstrate doctoral-level writing proficiency beginning with the first doctoral seminar.

ESP 782 - Professional Seminar in Special Education (formerly ESP 760)

Dissertation - Total Semester Hours: 12

Upon completion of course work, doctoral students enroll in 12 semester hours of dissertation credit

ESP 799 - Dissertation

Colloquium

The Special Education 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.

Doctoral Studies Committee

Each student is required to select a faculty committee designated as the Doctoral Studies Committee. The committee consists of the student's advisor, who is to have been selected prior to the time 12 semester hours of course work have been completed, two other faculty members from within the Department of Special Education, and a Graduate College representative. This committee oversees the student's progress, including the comprehensive examination process. A temporary advisor may be assigned until a new student becomes acquainted with the faculty.

Comprehensive Examination

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 first two Fridays in October or the first two Fridays in March. Students may petition the Doctoral Program Committee (not the individual Doctoral Studies Committee) for permission to take comprehensive examinations in the summer or an alternative set of consecutive Fridays. 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.

Dissertation Proposal and Advancement to Candidacy

Upon successful completion of comprehensive examination, the student selects a dissertation committee (i.e., minimum of three faculty members from the Department of Special Education 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.

Dissertation Defense

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.

Special Education Ph.D.

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.

Admission Requirements

Applicants to the Ph.D. program in special education 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 résumé 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 Special Education. 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 special education.

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 the Graduate Assistant Application located at <http://graduatecollege.unlv.edu/ga/> and send it to the Department of Special Education.

Residency

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 Special Education. 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.

Program of Study

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:

1. Those not previously used to fulfill requirements for another degree;
2. Those taken while enrolled at an accredited graduate degree-granting institution in a degree-granting program;
3. Those taken as a nondegree student (not to exceed 15 total semester hours); and
4. Those for which a grade of B or higher was earned.

In addition, 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 Special Education 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 Special education (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.

The Department of Special Education generally tailors its leadership programs to meet individual student needs and career goals. A content core of courses, however, is required of all Ph.D. doctoral students. This content may not be waived. In addition to the core curriculum, students select concentrations in Leadership Studies and Exceptionality Specialties as appropriate. The requirements for the Ph.D. degree are outlined here:

Degree Requirements

Core Curriculum - Total Semester Hours: 24

Doctoral students must earn a grade of B or higher in all core curriculum courses.

Each doctoral student will complete the core curriculum below:

ESP 782 - Professional Seminar in Special Education
ESP 783 - 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 796 - Dissertation Prospectus (To be taken as an independent study supervised by the advisor)

Research Course Work - Total Semester Hours: 15

Doctoral Students must earn a grade of B or higher in EPY 721 and EPY 722.

EPY 721 - Descriptive and Inferential Statistics: An Introduction
EPY 722 - Inferential Statistics and Experimental Design
EPY 791 - Special Topics in Educational Psychology

An additional six semester hours in research selected from courses such as:

EPY 716 - Evaluation Research Methods
EPY 718 - Qualitative Research Methodologies
EPY 733 - Multivariate Statistics
EPY 790 - Research Seminar in EPY

Research Internship - Total Semester Hours: 3

ESP 794 A-C - Internship in Special Education (A)

Leadership Studies - Total Semester Hours: 18*

Doctoral students complete 18 semester hours including:
ESP 794 A-C - Internship in Special Education (B)

Additional leadership courses may be selected 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.

Exceptionality Specialties - Total Semester Hours: 18*

Students complete nine semester hours each in two specialty areas from the following list: Autism, Learning Disabilities, Emotional Disturbance, Mental Retardation, Gifted and Talented Education, Developmental Disabilities/Children at Risk.

Notes: *Hours may be reduced based on student's previous academic preparation related to leadership studies and exceptionality specialties. However, under no circumstances will the Formal Program of Studies include fewer than 72 semester hours.

Writing Proficiency

Students shall be required to demonstrate doctoral-level writing proficiency beginning with the first doctoral seminar.

ESP 782 - Professional Seminar in Special Education

Dissertation - Total Semester Hours: 12

Upon completion of course work, doctoral students enroll in 12 semester hours of dissertation credit

ESP 799 - Dissertation

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Comprehensive Examination

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 first two Fridays in October or the first two Fridays in March. Students may petition the Doctoral Program Committee (not the individual Doctoral Studies Committee) for permission to take comprehensive examinations in the summer or an alternative set of consecutive Fridays. 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.

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Upon successful completion of comprehensive examination, the student selects a dissertation committee (i.e., minimum of three faculty members from the Department of Special Education 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.

Dissertation Defense

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.

Course Descriptions

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. Note: 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 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. Note: May be repeated to a maximum of nine credits.

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. Note: 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. Note: 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 Mental Retardation

Credits 3

Study and interpretation of theories and research on the learning characteristics of persons with mental retardation; psychological and social contributions to educative/habilitative solutions in mental retardation.

ESP 703 - Prescriptive and Precision Teaching W/MR

Credits 3

Cognitive, adaptive, and diagnostic-prescriptive instructional strategies and behavioral interventions for persons with mental retardation and diverse educational and community settings.

ESP 704 - Adaptive Curricular Programming for Persons with Mental Retardation

Credits 3

In-depth analysis and application of curricular development and implementation for persons with mental retardation 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. Note: 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. Note: May be repeated to a maximum of nine credits. Maximum of nine credits may be applied to a graduate program. **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. Note: Maximum of nine credits may be applied to a graduate program. 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. Note: Maximum of nine credits may be applied to a graduate program. 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. Note: Maximum of nine credits may be applied to a graduate program. 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.

Note: Maximum of nine credits may be applied to a graduate program. 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. Note: Maximum of nine credits may be applied to a graduate program. 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. Note: Maximum of nine credits may be applied to a graduate program. 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. Note: Maximum of nine credits may be applied to a graduate program. 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. Note: Maximum of nine credits may be applied to a graduate program. 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. Note: Maximum of nine credits may be applied to a graduate program. May be repeated to a maximum of nine credits.

ESP 718 - Assessment of Persons with Severe Mental Retardation

Credits 3

Emphasis on diagnosis and problems encountered in assessing individuals with severe 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 programs. Areas of emphasis include: mental retardation, emotional disturbance, learning disabilities, early childhood special education, adaptive physical education, gifted education, parent education, career education. Note: Maximum of nine credits may be applied to a graduate program. 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 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

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. Note: 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 mental retardation, 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.

Note: Maximum of nine credits may be applied to a graduate program. May be repeated to a maximum of nine credits. **Prerequisites:** ESP 701

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

Note: 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. Note: May be repeated to a maximum of nine credits. **Prerequisites:** ESP 760 and consent of instructor.

ESP 764 - Characteristics & Inclusive Strategies for Students with Emotional Disturbance, Learning Disabilities & Mild Mental Retardation

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. Note: 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 7 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 7 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 782 - Professional Seminar in Special Education

Credits 3

Perceptions of exceptionality by a variety of interdisciplinary personnel. **Prerequisites:** Doctoral status or consent of instructor.

ESP 783 - 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.

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 760

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 760

ESP 786 - Legal and Political Issues in Special Education Programming

Credits 4

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 760

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 760

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 760

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:** 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 794 A-C - Internship in Special Education

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:** Consent of area coordinator.

ESP 796 - Dissertation Prospectus

Credits 3

Development of appropriate field-relevant topics as a preface to dissertation writing. **Prerequisites:** ESP 760

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.

Sports Education Leadership

Chair

Lounsbery, Monica A.F.

(2001), Associate Professor; B.S., Dakota Wesleyan University; M.Ed., Ph.D., University of Nebraska, Lincoln.

Graduate Coordinator

Watson, Doris L.

(2005), Associate Professor; B.A., Adams State College; M.S., Colorado State University; M.A., Adams State College; Ph.D., University of New Mexico.

Graduate Faculty

Ayvazo, Shiri

(2008), Assistant Professor; B.Ed. Zinman College, Isreal; M.A., Ph.D., The Ohio State University.

Bungum, Tim J.

(2001), Associate Professor; B.A., Luther College, M.S., DrPH, University of South Carolina.

Hughes, Jerry

(2007). Associate Faculty in Residence; B.A., Adams State College, M.S., University of Nevada, Reno, Ed.D., Brigham Young University.

Landwer, Gerald E.

(1988), Professor; B.S., M.PE., University of Nebraska, Ed.D., University of Missouri.

Lough, Nancy L.

(2006), Associate Professor: B.A., Adams State College; M.Ed., Stephen F. Austin State University; Ed.D., University of Northern Colorado.

Stahura, Kurt

(2004), Assistant Professor; B.A., University of Wisconsin; M.A., Ph.D., University of Minnesota.

Professors Emeriti

Rothermel, Bradley L.

(1981-2000), Emeritus Associate Professor; B.S., Northern Illinois University; M.S., Ph.D., University of Illinois, Champaign-Urbana.

Starr, John T.

(1965-2000), Emeritus Associate Professor; B.S., M.Ed., University of Wyoming; Ed.D., University of Southern California.

The Department of Sports Education Leadership offers M.Ed, M.S., and Ph.D. graduate degree options. All graduate programs are designed to provide quality preparation for current and future sport leaders in the areas of physical education teacher education, adapted physical education, coach education, and sport administration. Research and creative scholarly activity are viewed as essential experiences in all Sports Education Leadership graduate programming.

Master Degree Programs

The Department of Sports Education Leadership offers the Master of Education (M.Ed.) and the Master of Science (M.S.) degrees. Both degrees require a minimum of 36 semester hours. The M.S. degree is intended for students who wish to increase their knowledge and skills in teaching and coaching effectiveness and for related administrative activities. This degree is designed for those who wish to contribute to the teaching and coaching professional research literature. The M.S. degree is also viewed as a potential foundation for doctoral work and includes an appropriate research methods core and culminating thesis. The M.Ed. is designed for inservice teachers and administrators who are interested in furthering their careers in physical education or sport. Graduates of the M.Ed. degree program have assumed positions as master teachers, department chairs, athletic directors, or curriculum coordinators. The philosophy underlying this degree option is that graduate education can be both academic and practical. Specialized skills are developed in program design, program assessment, analysis of teaching, and instructional strategies.

Concentrations in physical education teacher education, adapted physical education and sport administration are offered for both the M.Ed. and the M.S. degree programs.

Sports Education Leadership M.Ed.

The Department of Sports Education Leadership offers the Master of Education (M.Ed.) and the Master of Science (M.S.) degrees. Both degrees require a minimum of 36 semester hours. The M.S. degree is intended for students who wish to increase their knowledge and skills in teaching and coaching effectiveness and for related administrative activities. This degree is designed for those who wish to contribute to the teaching and coaching professional research literature. The M.S. degree is also viewed as a potential foundation for doctoral work and includes an

appropriate research methods core and culminating the choice of three culminating experience options. The M.Ed. is designed for inservice teachers and administrators who are interested in furthering their careers in physical education or sport. Graduates of the M.Ed. degree program have assumed positions as master teachers, department chairs, athletic directors, or curriculum coordinators. The philosophy underlying this degree option is that graduate education can be both academic and practical. Specialized skills are developed in program design, program assessment, analysis of teaching, and instructional strategies. Concentrations in physical education teacher education, adapted physical education and athletic administration are offered for both the M.Ed. and the M.S. degree programs.

Admission Requirements

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 and official transcripts from all colleges and universities attended.

Admission to Masters programs is based on the following criteria:

1. GRE scores
2. Two letters of recommendation
3. Transcripts from all colleges and universities attended
4. Professional resume or vita
5. Applicants may be admitted under provisional status if they are deficient in no more than two of the admission requirements. If the applicant is admitted under provisional status, satisfactory completion of specified course work will be required in order to obtain full admission status.

Admission Process

Applications for M.S. and M.Ed. programs will be considered twice per year. All application materials should be sent to the Graduate College online. Further admission information and application forms may be obtained from the UNLV Graduate College website at: graduatecollege.unlv.edu/admissions.

Two letters of recommendation, professional resume or vita, GRE scores and a copy of all college transcripts should be submitted to the Department of Sports Education Leadership, University of Nevada, Las Vegas, 4505 S. Maryland Parkway, Box 453031, Las Vegas, NV 89154-3031.

Student Advisory Committee

Students are required to select a graduate advisory committee within completion of 12-16 hours. Advisory committees must consist of three Sports Education

Leadership graduate faculty members (one of which can be an associate graduate faculty member) and a Graduate College representative from outside of the department. The advisory committee should be formed prior to the completion of 16 credit hours. The committee oversees the student's degree program and ensures all requirements are satisfactorily fulfilled. A temporary advisor is assigned upon acceptance into the program. Once the student becomes acquainted with the faculty, it is his/her responsibility to select an advisory committee.

Sports Education Leadership M.S.

Admission Requirements for Master's Programs

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 and official transcripts from all colleges and universities attended.

Admission to Masters programs is based on the following criteria:

1. GRE scores
2. Two letters of recommendation
3. Transcripts from all colleges and universities attended
4. Professional resume or vita
5. Applicants may be admitted under provisional status if they are deficient in no more than two of the admission requirements. If the applicant is admitted under provisional status, satisfactory completion of specified course work will be required in order to obtain full admission status.

Admission Process

Applications for M.S. and M.Ed. programs will be considered twice per year. The deadline for receipt of applications for spring admission is October 1 and for fall admission, March 1. Application forms, fees, and official transcripts should be sent to the Graduate College, University of Nevada, Las Vegas, 4505 S. Maryland Parkway, Box 451017, Las Vegas, NV 89154-1017. Further admission information and application forms may be obtained from the UNLV Graduate College website at: <http://graduatecollege.unlv.edu/admissions/>. Two letters of recommendation, professional resume or vita, GRE scores and a copy of all college transcripts should be submitted to the Department of Sports Education Leadership, University of Nevada, Las Vegas, 4505 S. Maryland Parkway, Box 453031, Las Vegas, NV 89154-3031.

Student Advisory Committee

Students are required to select a graduate advisory committee by the beginning of the third semester of

enrollment. Advisory committees must consist of three Sports Education Leadership graduate faculty members (one of which can be an associate graduate faculty member) and a Graduate College representative from outside of the department. The advisory committee should be formed prior to the completion of 16 credit hours. The committee oversees the student's degree program and ensures all requirements are satisfactorily fulfilled. A temporary advisor is assigned upon acceptance into the program. Once the student becomes acquainted with the faculty, it is his/her responsibility to select an advisory committee.

Program of Study

Core Requirements: 12 Credit Hours

PED 705 - Philosophy of Physical Education
PED 750 - Biophysical Foundations of Physical Education and Sport
or

PED 730 - Perceptual Motor Learning Theories and the Individual with Disability

* Students wishing to pursue Adapted PE Endorsement must take PED 730.

PED 765 - Survey and Analysis of Professional Literature in Physical Education

PED 780 - Colloquium in Sports Education Leadership
* 3 hours of Colloquium must be taken during the course of your program: 1 hour during your first semester, 1 hour at the time of proposal, and 1 hour at the time of defense.

Research Core Requirements: 9 Credit Hours

EPY 702 - Research Methods
EPY 721 - Descriptive and Inferential Statistics: An Introduction
Advisor Approved Research Course (3 credits)

Electives: 9 Credit Hours (Approved by Advisor)

PED 710 - Curriculum in Physical Education
PED 714 - Analysis of Teaching Physical Education
PED 715 - Supervision of Physical Education
PED 721 - Sport Facility and Risk Management
PED 731 - Financing Sport and Athletic Programs
PED 732 - Collegiate Athletic Administration
PED 733 - Interscholastic Athletics
PED 735 - Leadership Theory in Sport
PED 774 - College Teaching in Sports Education Leadership
PED 775 - Research on Physical Activity Behavior
PED 790 - Independent Study in Athletic Administration
PED 794 - Independent Study in Pedagogy
PED 795 - Independent Study

Capstone Experience Options: 6 Credit Hours

PED 746 - Internship in Athletic Administration plus 1 additional 3 credit hour course

Comprehensive Examination plus 2 additional 3 credit hour courses

PED 749 - Thesis

Sports Education Leadership Ph.D.

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 physical education teacher education, administration.

Admission Requirements

Admission to doctoral study in the Department of Sports Education Leadership 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 doctoral study
6. A detailed statement explaining why the student desires admission to the program
7. A personal interview with the department graduate faculty. Interviews will be held in March.
8. Satisfactory GRE test scores (taken within five years from the date of application for admission)
9. TOEFL scores are required of international students with a preferred minimum of 550 for the written exam, 213 for the computerized exam, or 80 for the internet-based exam.

Admission Process

Applications for the Ph.D. program will be considered once per year and deadline for receipt of application is March 1. Application forms, fees, and official transcripts should be sent to the Graduate College online. Further admission information and application forms may be obtained from the UNLV Graduate College website at: <http://graduatecollege.unlv.edu/admissions>. 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 to the Department of Sports Education Leadership, University of Nevada, Las Vegas, 4505 S. Maryland Parkway, Box

453031. As a final step in the admission process, a personal interview with the graduate faculty will be conducted.

Degree Requirements

The Ph.D. in Sports Education Leadership will consist of a minimum of 66 credit hours beyond the master's degree to include the following areas: content knowledge (18); two 9 hour cognate areas (18); research methodology (15); and the culminating experience of prospectus (3) and dissertation (12). Individual programs of study may exceed minimum requirements and specific course work will vary depending on particular interest. Students must maintain a GPA of 3.00 or higher for all course work taken at the doctoral level.

Scholarly Product Requirement

Each student must satisfy a scholarly product requirement. This requirement can be met in one of two ways:

1. Students may submit a research study to a refereed journal for publication.
2. Students may submit a proposal for presentation of research at an annual conference of a national organization.

Student Advisory Committees

Students are required to select a graduate advisory committee before completing 16 hours or by the sixth week for the first semester of admission if 12+ hours, taken prior to admission, is considered part of the degree program. Advisory committees must consist of three Sports Education Leadership graduate faculty members (one of which can be an associate graduate faculty member) and a graduate college representative from outside of the department. The chair of the advisory committee must be a graduate faculty member in the Department of Sports Education Leadership. Advisory committees should be informed prior to the student's completion of 16 credit hours. The committee oversees the student's progress, including the comprehensive exams. A temporary advisor is assigned until the student becomes acquainted with the faculty and selects his/her advisory committee.

Comprehensive Examination

The student takes the comprehensive examination during the semester immediately preceding enrollment in dissertation. 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. 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 Sports Education Leadership. Students may petition the Sports Education Leadership Graduate Faculty for permission to take comprehensive examinations pending approval of the advisory committee.

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.

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.

Dissertation Proposal and Defense

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.

Upon approval of the prospectus, the student must obtain approval for the study from the Institutional Review Board for the Protection of Human Subjects.

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.

It is the student's responsibility to file all required paperwork (Dissertation Prospectus Approval, Appointment of Advisory Committee, Proposed Degree Program, etc.) to the Graduate College in a timely manner.

Course Descriptions

PED 703 - Readings in Health, Physical Education, and Recreation

Credits 1

Designed to acquaint advanced students with recent professional literature in health, physical education, and recreation. Note: Weekly conference periods conducted.

PED 705 - Philosophy of Physical Education

Credits 3

Study of philosophical thought influencing physical education programs in the United States.

PED 710 - Curriculum in Physical Education

Credits 3

Study of the physical education curriculum and the process of developing a physical education guide.

PED 714 - Analysis of Teaching Physical Education

Credits 3

Explores a spectrum of research-based analytical tools for the systematic description, analysis and interpretation of the teaching process. Various theories of teaching and the instructional styles that complement them.

PED 715 - Supervision of Physical Education

Credits 3

Concepts, principles, and techniques of supervision for use by superintendents, supervisors, and teachers in the supervision of physical education programs.

PED 716 - Research on Teaching in Physical Education

Credits 3

Research on teaching in physical education (ROT-PE) encompasses a number of fields of inquiry into both teacher and student influences on teaching and learning. This course on ROT-PE focuses on major issues, methodologies, and significant findings of ROT-PE for the past three decades.

PED 720 - Issues and Trends in Physical Education

Credits 3

Identifying, analyzing, and evaluating recent developments in physical education with special emphasis on the problems of the student in an area of specialization.

PED 721 - Sport Facility and Risk Management

Credits 3

Provides students with an understanding of sport event and facility management. Students will acquire the knowledge and skills to evaluate functions of the facility which relate to risk analysis and event management with a specific focus on interscholastic and intercollegiate environments.

PED 726 - Adapted Physical Education for the Developmentally Disabled

Credits 3

Study of the etiology and motor capacities of individuals with developmental disabilities. Includes relevant strategies for planning and implementing adapted physical education programs for individuals with learning disabilities, mental impairment, behavior disorders, and other health impairments.

PED 727 - Adapted Physical Education for Individuals with Chronic and Permanent Disabilities

Credits 3

Study of the prevalent, chronic, congenital, and permanent disabilities which effect motor performance. Considers the characteristics, limitations, and special needs required in

selecting and implementing an adapted physical education program. **Prerequisites:** PED 465 or consent of instructor.

PED 728 - Evaluation Techniques in Adapted Physical Education

Credits 3

Study of evaluation instruments used in the assessment of individuals with disabilities, the interpretation of results, and application of pertinent data to motor programming.

Prerequisites: PED 494, graduate standing, or consent of instructor.

PED 730 - Perceptual Motor Learning Theories and the Individual with Disability

Credits 3

Study of human movement and subsequent motor performance. Considers the delays in motor development, theories of perceptual motor learning and needs of individuals with disabilities in physical education settings.

Prerequisites: consent of instructor.

PED 731 - Financing Sport and Athletic Programs

Credits 3

Conventional income sources such as tax support, bonds, ticket sales, concessions and fund raising, along with more recent innovations related to licensing and corporate sponsorships for sport events will be studied. Specific focus will also include budgeting, breakeven analysis and economic impact studies used to justify sport events and facilities.

PED 732 - Collegiate Athletic Administration

Credits 3

Course will provide the student with an understanding of the relationships inherent in policy development in intercollegiate sport. Through analysis of literature, NCAA guidelines and current issues, students will experience the expectations placed on a sport administrator in a collegiate environment, including policy implementation, interpretation and compliance with NCAA rules.

PED 733 - Interscholastic Athletics

Credits 3

This course will provide students with the background and knowledge to administer interscholastic athletic programs. The students will have the opportunity to fulfill the class work toward a Registered Athletic Administrator as developed by the National Interscholastic Athletic Administrators Association (NIAAA). **Prerequisites:** Graduate Standing

PED 734 - Marketing and Promotions of Athletic Programs

Credits 3

Study of the conceptual and empirical approaches sport administrators can utilize for conducting relationships with consumers in athletic environments. Topics include sport consumer behavior, strategic marketing plan development

for sport properties, corporate sponsorships, promotion and advertising, and application of market research in sport.

PED 735 - Leadership Theory in Sport

Credits 3

Based upon the study of leadership theory and its application to the administration of sport programs. Includes discussion of leadership theories from business and education. Leadership research in sport emphasizes aspects of leadership development relative to students' professional growth. Fundamental governance structure of education based sport organizations included.

PED 736 - Sports and the Courts

Credits 3

An overview of selected areas of the law and how they relate to the world of sports, physical activity and physical education. An emphasis will be placed on current issues and practical applications.

PED 737 - Introduction to NCAA Compliance

Credits 3

Introduction to all aspects of NCAA rules/regulations including how to administer NCAA compliance processes. Students will gain insight and knowledge of those compliance issues relevant to individuals working in athletic administration, in campus constituencies who administer institutional functions related to student athletes or who have oversight of athletics.

PED 738 - Diversity in Sport Organizations

Credits 3

An encompassing perspective of diversity within sport organizations. Specifically, the course provides an analysis and understanding of the various ways that people within sport organizations can differ. The course treats issues of the non-dominant, historically under-represented segments of U.S. society, with an emphasis placed on racial, ethnic, and gender issues.

PED 746 - 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. Note: May be repeated to a maximum of six credits. **Prerequisites:** Admittance to program in physical education and approval of advisor.

PED 748 - Professional Paper

Credits 1 – 6

Note: May be repeated but only two credits will be applied to a student's program. Grading S/F grading only.

PED 749 - Thesis

Credits 3 – 6

Note: May be repeated but only six credits will be applied to the student's program. Grading S/F grading only.

PED 750 - Biophysical Foundations of Physical Education and Sport

Credits 3

Integrative perspective of the biophysical foundations of physical education and sport. Emphasis on multidimensional changes that occur as an adaptation to training and other life-style factors.

PED 765 - Survey and Analysis of Professional Literature in Physical Education

Credits 3

Students review the current research and scholarly literature pertaining to physical education pedagogy. Articles, papers and research studies with special implications for teaching and curriculum are read, discussed and critically analyzed.

Prerequisites: PED 465 or consent of instructor.

PED 774 - College Teaching in Sports Education Leadership

Credits 3

Course provides the opportunity to develop pedagogical knowledge relative to teaching in higher education. In addition, the course will also examine topics which include, development of critical reflection, assessment and evaluation, higher education culture, teaching strategies and alternative teaching styles.

PED 775 - 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.

PED 780 - Colloquium in Sports Education Leadership

Credits 1

Examines current research topics within the subdisciplines of physical education including sport pedagogy, motor development, motor behavior, athletic administration, and coaching. Students will present research, and lead discussions on possible research questions.

Note: May be repeated to a maximum of six credits.

PED 790 - Independent Study in Athletic Administration

Credits 1 – 3

Independent study of a selected topic in athletic administration. Note: May be repeated to a maximum of six credits. A maximum of six hours of independent study accumulated in PED 790-795 may be counted towards a master's degree. **Prerequisites:** consent of instructor.

PED 794 - Independent Study in Pedagogy

Credits 1 – 3

Independent study of a selected topic in pedagogy.

Note: May be repeated to a maximum of six credits. A maximum of six hours of independent study accumulated in PED 790-795 may be counted towards a master's degree.

Prerequisites: Consent of instructor.

PED 795 - Independent Study

Credits 1 – 3

Independent study of a selected topic in field of physical education. Note: May be repeated to a maximum of six credits. A maximum of six hours of independent study accumulated in PED 790-795 may be counted towards a master's degree. **Prerequisites:** Consent of instructor.

PED 796 - Dissertation Prospectus

Credits 3

Acquaints students with resources available to assist in the conceptualization of research design and literature review in preparation of the formal dissertation proposal.

Prerequisites: Admission to doctoral program.

PED 799 - Dissertation

Credits 3 – 12

Culminating research analysis and writing toward completion of dissertation and subsequent defense. Grading S/F grading only. **Prerequisites:** PED 796

Howard R. Hughes College of Engineering

Welcome to the Howard R. Hughes College of Engineering. We believe you will find UNLV and the College of Engineering a great place to pursue your studies. With more than 60 faculty, 400 graduate students, and 1,400 undergraduates, we have a dynamic community of scholars. Beyond that, we've made innovations that have resulted in an imaginative, student-centered educational and research environment. We are growing, and our future looks very promising. UNLV is now a Research Intensive University, a distinction that the College of Engineering has played a major role in helping the university achieve.

Graduate students in the College of Engineering study a variety of disciplines, including computer science, construction management, civil and environmental, electrical and computer, informatics, and mechanical engineering. New programs are underway, and we are building first-class research facilities.

Graduate students are involved in all of the new and ongoing research being conducted by the faculty. Some of our research areas include transmutation of radioactive water, air and water quality, data mining, materials research for the DOE stockpile stewardship program, vehicle and mass transit transportation, renewable energy (wind and solar), threat and terrorist defense, aerospace, and parallel processing and computer code development. One study we are currently conducting is with a "team" of five robots that play soccer and communicate with one another. This interdependent "soccer team" of robots is hoped to fuel the excitement of scientific and engineering discovery and to ultimately develop into research outcomes that serve mankind in a variety of ways. Some of these ways include automating many tasks in nonmanufacturing industries such as agriculture, construction, health care, entertainment, and education.

As the boundaries of science continue to expand, the College of Engineering is committed to offering students a variety of competitive programs. New master's programs in aerospace engineering, bioengineering, and materials and nuclear engineering are currently being considered by the university administration. Entertainment engineering, a joint program with the College of Fine Arts, is also underway. The joint venture is anticipated to eventually become the premier program for entertainment technology in the country.

The College of Engineering is an exciting place to pursue your graduate studies. We hope that you will join us at UNLV.

Eric Sandgren, Dean

(2003), Professor and Dean; BSME, MSME, Ph.D. Purdue University .

Civil & Environmental Engineering

Chair

Neumann, Edward S.
(1991), Professor; B.S.C.E., Michigan Technological University; M.S., Ph.D., Northwestern University.

Graduate Coordinator

Karakouzian, Moses
(1988), Professor; B.C.E., American University of Beirut; M.S., M.B.A., Ph.D., Ohio State University; P.E., Ohio.

Graduate Faculty

Ahmad, Sajjad
(2006), 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.

Batista, Jacimaria Ramos
(1997), Associate Professor; B.S., Federal University of Ouro Preto; M.S., Montana College of Mineral Science and Technology; Ph.D., Pennsylvania State University.

Ghafoori, Nader
(2003), Professor; B.S.C.E., Texas Tech University; M.S.C.E., Ph.D., University of Miami.

James, David E.
(1990), Associate Professor; A.B., University of California, Davis; M.S., Ph.D., California Institute of Technology.

Kaseko, Mohamed S.
(1993), Associate Professor; B.S., University of Dares-Salaam; M.S., Cornell University; Ph.D., University of California, Irvine.

Ladkany, Samaan
(1984), Professor; B.S., American University of Beirut; B.S., M.S., Ph.D., University of Wisconsin, Madison.

Luke, Barbara
(1995), Professor; A.A., University of Florida; B.S., Ph.D., University of Texas at Austin; M.S., University of California, Berkeley.

Paz, Alexander
(2008), Assistant Professor; B.S., University of Cauca, Colombia; M.S., University of Puerto Rico, Mayaguez Campus, PR; Ph.D., Purdue University.

Piechota, Thomas
(1999), Associate Professor; B.S., Northern Arizona University; M.S., Ph.D., University of California, Los Angeles.

Said, Aly
(2006), Assistant Professor; B.S., Ain Shams University, Cairo, Egypt; MScA, Universite de Moncton, Moncton, New Brunswick, Canada; MEng, McMaster University,

Hamilton, Ontario, Canada, Ph.D., University of Western Ontario, London, Ontario, Canada.

Teng, Hualiang
(2004), Assistant Professor; B.S., M.S., Northern Jiaotong University; M.S.C.E., West Virginia University; Ph.D., Purdue University.

Tian, Ying
(2007), Assistant Professor; B.S., Hebei Polytechnic University; M.S., Tsinghua University; M.S., Ohio State University; Ph.D., University of Texas at Austin.

Professor Emeriti

Frederick, Gerald R.
(1993), Emeritus Professor; B.S., University of Toledo; M.S., Ph.D., Purdue University.

Vodrazka, Walter C.
(1990), Emeritus Professor; B.C.E., Manhattan College; M.S., Mississippi State University; Ph.D., Purdue University.

Wyman, Richard V.
(1969-1992), Emeritus Professor; B.S., Case Western Reserve University; M.S., University of Michigan; Ph.D., University of Arizona.

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 UNLV Transportation Research 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 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. All 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.

Applicants must identify a specialization from one of the following areas: environmental, fluids/ hydraulics,

geotechnical, structural, systems, or transportation. 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 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, as outlined below. It is imperative that the documentation is sent to the appropriate location to aid fast processing of the application.

Documents Required for Admission Consideration by the Department of Civil and Environmental Engineering:

1. One official transcript from each post-secondary institution attended. Only transcripts sent directly from the institution are considered.
2. Letters of recommendation (two for M.S. and three for Ph.D. applicants).
3. One-page statement indicating the reasons why you wish to earn a M.S. or Ph.D. degree.
4. GRE General test scores taken in the last five years.

Documents Required for Admission Consideration by the Graduate College:

1. A complete application form and a non-refundable fee.
2. One official transcript of each post-secondary institution attended. International students must submit official translated copies of transcripts. Only transcripts sent directly from the institution to the UNLV Graduate College are considered.
3. Official TOEFL or Michigan Test Scores (only if English is not native language) taken in the last two years.
4. High School Leaving Certificate (for international students only)

The deadlines for application to the Civil and Environmental Engineering 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

Engineering M.S.E.

Admission Requirements

In addition to the general requirements for admission to the Graduate College, an applicant for the M.S.E. program must 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. All applicants must 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. 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 1000 and GRE analytical writing score of at least 3. 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.

Degree Requirements

Procedures and requirements for the M.S.E. will be as prescribed by the Graduate College under Academic Policies, with additional provisions as follows:

1. At least 15 credits must be earned from courses numbered 700 or above, of which at least 12 credits must be offered by the College of Engineering.
2. The program of study for each student must be approved by the student's advisory committee. Subject to the approval by the student's graduate committee, the student may choose one of these options: Thesis Option. Requires the 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. Non-Thesis Option. This course-only option requires 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.
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.

Requirements for M.S.E. with special emphasis in Geographic Information Systems

Procedures and requirements for the M.S.E. in Civil and Environmental Engineering with special emphasis in Geographic Information Systems are as prescribed in the general M.S.E. requirements as stated above, with additional provisions as follows:

1. Seventeen credits must be earned by successful completion of the following courses:

CEE 668 - GIS Applications in Civil Engineering
 CEE 768 - Applied Geographic Information Systems
 or
 EGG 768 - Applied Geographic Information Systems
 CS 733 - Geographic Data Base Systems
 STA 751 - Spatial Statistics

and one of the following two courses:

STA 667 - Introduction to Mathematical Statistics
 STA 691 - Statistics for Scientists I

2. Recommended undergraduate electives (not for graduate credit) include:

CS 135 and Computer Science I

and

CS 202 Computer Science II
 CS 117 - Programming for Scientists and Engineers
 MAT 265 - Computing Linear Algebra

3. Recommended graduate electives (not to satisfy remaining Civil and Environmental Engineering M.S.E. credits) include:

CS 680 - Computer Graphics
 EGG 769 - Applied Modeling with Geographic Information

Engineering Ph.D.

Admission Requirements

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 nonengineering 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 1000 and GRE analytical writing score of at least 3.

7. The applicant must be formally admitted by UNLV's Graduate College.

Degree Requirements

The degree requirements for the Ph.D. in Engineering in the Department of Civil and Environmental Engineering include the following:

1. 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.
2. 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.
3. A minimum of 27 credit hours of course work beyond the degree of Master of Science in Engineering or equivalent is required. A minimum of 18 of these credits must be 700-level courses. Doctoral students must complete CEE 700 prior to taking the Qualifying Examination. For students who have completed CEE 700, or equivalent, during their Master of Science studies, CEE 700 may be waived and replaced by another 700-level course. The student's Doctoral Advisory committee may add additional requirements in accordance with the individual's background and area of study.
4. In addition to these course requirements, a dissertation consisting of at least 18 credits (CEE 799) is required.
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.

Transportation M.S.T.

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.

Admission Requirements

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. The 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. Applicants are required to submit scores from the verbal, analytical, and quantitative portions of the GRE General Test, and a two-page Statement of Objectives indicating a) previous work experience, particularly in transportation, b) the reason they wish to pursue the M.S.T. program; and c) how the degree will be utilized following graduation. Applicants also must submit two letters of recommendation from individuals familiar with their skills and abilities. Contact the department for additional information. 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 1000 and GRE analytical writing score of at least 3. 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.

The degree offered is a Master of Science in Transportation (M.S.T.). Completion of the degree does not qualify the student with a nonengineering background to sit for the Fundamentals of Engineering (FE) exam. 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), 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. 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.

Degree Requirements

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 three-credit project; a minimum of 21 credits must be taken in civil engineering courses, and 12 credits may be taken from other departments.

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.

Required Courses

A total of six additional civil engineering elective credits are taken from two options.

CEE 609 - Engineering Project Management
CEE 663 - Traffic Engineering
CEE 760 - Transportation Planning and
CEE 765 - Public Transportation Systems

Course Descriptions

CEE 604 - Open Channel Flow
CEE 606 - Hydrologic Analysis and Design
CEE 609 - Engineering Project Management
CEE 610 - Highway Construction Materials
CEE 612 - Advanced Mechanical Properties of Engineering Materials

CEE 621 - Professional Engineering Practice
CEE 632 - Geological Engineering
CEE 634 - Rock Mechanics
CEE 635 - Foundations Engineering
CEE 636 - Engineering Geophysics
CEE 644 - Steel Structural Design
CEE 650 - Unit Operations/Processes in Environmental Engineering
CEE 650L - Unit Operations/Processes Laboratory
CEE 651 - Water and Wastewater Quality Analysis
CEE 652 - Air Pollution Control Fundamentals
CEE 654 - Solid and Hazardous Wastes Engineering
CEE 655 - Chemical Processes for Water Quality Control
CEE 663 - Traffic Engineering
CEE 664 - Airport Design
CEE 665 - Fire Protection Engineering
CEE 666 - Geometric Design of Highways
CEE 667 - Computer Applications in Transportation
CEE 668 - GIS Applications in Civil Engineering
CEE 676 - Earthquake Engineering
CEE 677 - Design of Underground Structures
CEE 678 - Applied Finite Element Analysis
CEE 680 - Concrete Design
CEE 682 - Design of Timber Structures
CEE 695 - Special Topics

Note: The upper-division engineering courses listed above are 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 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:** Graduate standing and ME 700. 3 credits.

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 452/652, MATH 432, ME 311, or equivalents. Strongly recommended: ME 314 and MAT 665 or equivalents.**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 478/678

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 450/650 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 451/651 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 452/652 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 450/650 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 455/655 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 450/650 or CEE 455/655 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 450/650, 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 400/600 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 463/663 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 765 - 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. **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 the used towards the degree. Grading S/F grading only.

Prerequisites: Graduate standing in Ph.D. program and consent of advisor.**General Engineering**

EGG 651 - Ergonomics

EGG 695 - Special Topics

Note: These upper-division engineering courses are 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.

School of Computer Science

Director

Minor, John T.
(1985), Associate Professor; B.A., Rice University; Ph.D., University of Texas, Austin.

Graduate Coordinator

Datta, Ajoy K.
(1988), Professor; B.S., M.S., Ph.D., Jadavpur University.

Graduate Faculty

Bein, Wolfgang
(1998), Associate Professor; M.S., Ph.D., University of Osnabruck.

Berghel, Hal
(1999), Professor; B.A., M.A., Ph.D., University of Nebraska, Lincoln.

Gewali, Laxmi P.
(1989), Professor; B.S., Gauhati University, India; M.S., Tribhuwan University, Nepal; M.S., Ph.D., University of Texas-Dallas.

Kim, Yoohwan
(2004), Assistant Professor; B.A., Seoul National University, Korea. M.S., Ph.D., Case Western Reserve University.

Larmore, Lawrence L.
(1994), Professor; B.S., Tulane University; Ph.D., Northwestern University; Ph.D., University of California, Irvine.

Nartker, Thomas A.
(1986), Professor; B.S., University of Dayton; M.S., University of Tennessee; Ph.D., Texas A&M University.

Ogawa, Roy H.
(1983), Associate Professor; B.A., M.A., University of Hawaii; Ph.D., University of California, Berkeley.

Pedersen, Jan B.
(2003), Assistant Professor; B.S., M.S., University of Aarhus, Denmark; Ph.D., University of British Columbia.

Pinelle, David
(2007), Assistant Professor; B.S., Texas Tech University; Ph.D., University of Saskatchewan.

Taghva, Sidkazem
(1987), Professor; B.S., Pahlavi University; M.S., University of Kansas; Ph.D., University of Iowa.

Yfantis, Evangelos A.
(1979), 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.

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, software engineering, and human-computer interfaces.

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 engineering 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).

Computer Science M.S.C.S.

Admission Requirements

Applicants must submit the following to the Graduate College: an application and official transcripts of all college level work with a minimum GPA of 3.00. Two letters of recommendation concerning the student's potential for succeeding in the graduate program, another set of official transcripts, and the results of the Graduate Record Examination current to within five years should be sent directly to the school. 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. 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. The student must complete these requirements before full admission to the program is granted.

The deadline for all application materials is February 1 for the fall semester and October 1 for the spring.

Degree Requirements

The student must pass at least 30 credits of 600- and 700-level courses with grades of C or better, subject to the conditions and Graduate College policy shown below.

Computer Science

At least 24 credits must be in computer science. Non-CS courses must be related to the student's research area and be approved by the school graduate committee.

700-level Requirements

18 credits of computer science courses must be at the 700-level.

Requirements

CS 656 - Automata and Formal Languages*

CS 677 - Analysis of Algorithms*

CS 660 - Compiler Construction*

*If equivalent courses have not been taken previously, these courses must be included.

Thesis or Project Option

At most six credits of:

CS 791 - Thesis (Thesis Option)

or three credits (Project Option) can be included:

CS 790 - Master's Project

Notes for Thesis or Project Option: The student must also select either the Thesis Option or the Project Option. If the Thesis Option is selected, 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. For the Project Option, the student must complete a computer science project and report approved by his advisor and pass a final oral examination over the project and relevant course work.

Notes

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.

Computer Science Ph.D.

Admission Requirements - Doctoral Degree Program

In addition to the requirements of the Graduate College, applicants for admission to the Ph.D. program in computer science must meet the following:

1. 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.

2. A GPA of 3.30 (on a 4.00 scale) or higher in postbaccalaureate course work is required for admission.
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. Satisfactory scores on both the general test of the Graduate Record Examination (GRE) and from the Computer Science subject test (C29) are required. Official score reports from the last five years are acceptable.

Degree Requirements

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.

To successfully complete the Ph.D. program, a student must fulfill all the Graduate College degree requirements and the following requirements:

1. Complete 48 credits of course work.
2. Satisfactorily pass a written comprehensive examination.
3. Satisfactorily pass an oral qualifying examination.
4. Prepare a dissertation that must be acceptable to his or her Ph.D. committee.
5. Satisfactorily pass an oral defense of the dissertation.
6. Maintain a satisfactory rate of progress.

Course Requirements

A student entering the Ph.D. program with a master's degree in computer science is required to take at least 48 credits of course work subject to the following conditions:

At least 42 credits must be in computer science.

2. At least 18 credits of computer science courses must be at the 700 level (excluding CS 799 credits).
3. Must include exactly three credits of: CS 792 - Research Seminar.
4. Must include a maximum of 18 credits of: CS 799 - Dissertation Research.

A student entering the Ph.D. program with a bachelor's degree is required to take at least 24 extra credits of 600- and 700-level computer science courses in addition to the above 48 credits (at least half of them must be at the 700 level).

The Comprehensive Examination

The written comprehensive examination will be given twice a year. The comprehensives will assess the student's breadth of knowledge through three examinations covering the six

Core Areas listed below and another examination in two other areas of his or her choice.

Core Areas

1. Automata and formal languages; Algorithms and data structures
2. Programming languages; Compiler construction
3. Computer architecture; Operating systems

Application Areas

1. Artificial intelligence
2. Computer graphics and image processing
3. Computer simulation and networks
4. Data base systems
5. Software engineering and reliability
6. Document analysis
7. Networks and distributed computing
8. Geometric applications

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.

The Qualifying Examination

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. It must be taken before either (a) two years after passing the comprehensive examination or (b) four years after entering the Ph.D. program. 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. 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. The faculty member from outside the school is selected by the Graduate College from three faculty members who are suggested by the student in consultation with his or her advisor. 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. 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. 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.

Preparation of Dissertation

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.

Oral Defense

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.

Satisfactory Progress

To maintain satisfactory progress in the Ph.D. program a student must:

1. Pass the comprehensive examination within 2.50 years of entering the Ph.D. program.
2. Maintain a minimum grade point average required by the College of Engineering.
3. Pass the qualifying examination within four years of entering the Ph.D. program.
4. Maintain satisfactory progress towards research.
5. 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.

Course Descriptions

CS 617 - Introduction to Computer Simulation
CS 620 - Human-Computer Interaction

CS 641 - Advanced Internet Programming
 CS 641L - Advanced Internet Programming Lab
 CS 645 - Internet Security
 CS 648 - Computer Security
 CS 651 - Multimedia Systems Design
 CS 651L - Multimedia Systems Design Lab
 CS 656 - Automata and Formal Languages
 CS 657 - Database Management Systems
 CS 660 - Compiler Construction
 CS 663 - Computer Architecture
 CS 665 - Computer Networks I
 CS 666 - Computer Networks II
 CS 669 - Introduction to Digital Image Processing
 CS 670 - Networks and Distributed Systems
 CS 671 - Program Derivation
 CS 672 - Software Product Design and Development I
 CS 673 - Software Product Design II
 CS 674 - Decision Environments for Software Product
 CS 677 - Analysis of Algorithms
 CS 680 - Computer Graphics
 CS 682 - Artificial Intelligence
 CS 689 - Advanced Computer Science Topics
 CS 690 - Independent Study

Note: The list of 600-level courses may be used for graduate credit. For a description of this 600-level course, please consult the current Undergraduate Catalog, where it is listed as a 400-level class.

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. Note: (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:** STAT 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.

Note: 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

Note: 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

Note: 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.

Note: 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.

Note: 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.

Construction Management

Director

Shields, David

(2003), Associate Professor; B.S., M.S., Texas A&M University; Ph.D., University of Texas at Austin, P.E. (Arizona).

Graduate Coordinator

Opfer, Neil

(1989), Associate Professor; B.S., B.A. Washington State University; M.B.A. Purdue University; P.D., University of Wisconsin.

Graduate Faculty

Shrestha, Pramen P.

(2007), Assistant Professor; B.S., National Institute of Technology, India; M.S., Oklahoma State University; Ph.D., University of Texas at Austin.

The Master of Science in Construction Management (M.S.C.M.) degree 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.

Documents Required by the Construction Management Program for Admission Consideration:

1. One official transcript from each post-secondary institution attended. Only transcripts sent directly from the institution are considered.
2. Two letters of recommendation.
3. One-page statement indicating the reasons why you wish to earn an M.S. degree.
4. GRE test scores taken in the last five years.

Documents Required by the Graduate College:

1. A complete application form and a non-refundable fee. The most current application fees for U.S. citizens and international applicants are available online at graduatecollege.unlv.edu/admissions.

2. One official transcript of each post-secondary institution attended.

International students must also submit to the Graduate College:

1. Official translated copies of transcripts. Only transcripts sent directly from the institution to the UNLV Graduate College will be considered.
2. Official TOEFL or Michigan Test Scores (only if English is not native language) taken in the last two years.
3. High School Leaving Certificate (for international students only)

**The Confidential Financial Certificate must be submitted to the Office of International Students and Scholars Program

Construction Management M.S.C.M.

Admission Requirements

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 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.C.M. 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). native language, or do not receive a degree from an institution where English is the language of instruction, must show

competency in English. A minimum score on the Test of English as a Foreign Language (TOFEL), of at least 213 (computerized), or 550 (written), or 80 (Internet-based) or the Michigan Test with a score of 85. An official report of the score must be submitted to the Graduate College.

6. Please refer to the sections under Admission and Registration Information for complete details of Graduate College application deadlines, admission requirements, and application procedures for domestic and international students. Admission is on a competitive basis.
7. Each applicant must submit official transcripts from all previously attended postsecondary institutions to the Graduate College.
8. Each applicant must also 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.

Degree Requirements

Procedures and requirements for the M.S.C.M. degree will be as prescribed by the Graduate College under Academic Policies, with additional provisions as follows:

1. Each student in conjunction with the Program's Graduate Coordinator will select either the Thesis option or Project Option.
 - a. Thesis Option.
 - i. 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.
 - ii. Requires completion of at least 30 credits, comprised of 18 required 600/700-level credits of CEM and MBA course work (see 2.a and 2.b below), six credits of approved electives, and six credits of thesis research. The final examination will include a defense of the thesis. 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.

- iii. The thesis option student's program of study must be approved by the student's advisory committee.
- b. Project Option: Requires completion of at least 36 credits comprised of 18 required 600/700-level credits of CEM and MBA course work (see 2.a and 2.b), 15 credits of approved electives of which nine credits must be 600/700-level credits of CEM (see 2.c).

Additional course requirement: CEM 796 - Special Project in Construction Engineering and Management (minimum 3 credits)

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.

2. Program course requirements. Both graduate degree options require students to:
 - a. Complete the following courses:
 - CEM 651 - Construction Estimating I
 - CEM 653 - Construction Scheduling and Resource Optimization
 - CEM 700 - Construction Seminar I
 - CEM 750 - Advanced Construction Scheduling or
 - CEM 751 - Construction Cost Analysis and Estimating
 - CEM 685 - Construction Law and Contracts or
 - CEM 740 - Construction Safety and Performance Improvement or CEM 775 - Construction Operations and Management or CEM 705 - Construction Engineering Management
 - MBA 702 - Statistical Analysis

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.

- b. Complete the following courses within the first two semesters of study:
 - MBA 702 - Statistical Analysis
 - CEM 700 - Construction Seminar I
- c. The student's graduate program to show suitable breadth and coherence. As specified in the Academic Policies section of this catalog, the

proposed graduate degree program must be submitted to the Graduate College prior to completion of 16 credit hours of course work toward the degree. The responsibility for meeting this requirement rests with the student. Students will be placed on probation or separated from the program if they neglect this requirement.

- i. The thesis option program of study will be jointly developed by the student and advisor, approved by the student's committee, and then filed with the Graduate College.
 - ii. The project option program of study will be jointly developed by the student and advisor, then filed with the Graduate College.
3. Performance Requirements: 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 9 credit hours per semester and must elect the thesis option.

Course Descriptions

CEM 632 - Temporary Construction Structures
CEM 651 - Construction Estimating I
CEM 651L - Construction Estimating Laboratory
CEM 653 - Construction Scheduling and Resource
CEM 654 - Heavy Construction Equipment & Methods
CEM 685 - Construction Law and Contracts
CEM 693 - Independent Study
CEM 695 - Special Topics in Construction Management

Note: 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. Credit at the 600 level normally requires additional work.

CEM 700 - Construction Seminar I

Credits 1

Introduction to research process, design, measurement, sampling, analysis, and results, research information resources, and literature review. **Corequisite:** MBA 702 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. **Prerequisites:** CEM 651 and 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 453/653 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 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 civil engineering facilities. Focus on methods improvement and the analysis and design of temporary structures, formwork, and rigging for construction. Case studies. Note: May be taken concurrently with CEM 751. **Prerequisites:** EGG 307, CEE 381, CEM 740, CEM 751

CEM 793 - Advanced Independent Study
Credits 1 – 3

Advanced independent study of a selected construction topic. Paper required. Note: 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. Note: 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. Note: 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. Note: May be repeated for a maximum of six credits. **Prerequisites:** Graduate standing.

Electrical & Computer Engineering

Chair

Selvaraj, Henry
(1994), Professor; M.S., Ph.D., Warsaw University of Technology.

Graduate Coordinator

Jiang, Yingtao
(2001), Associate Professor; B.E., Chongqing University; M.S.E.C.E., Concordia University, Montreal; Ph.D., University of Texas at Dallas.

Graduate Faculty

Baghzouz, Yahia
(1987), Professor; B.S., M.S., Ph.D., Louisiana State University.

Das, Biswajit
(2003), Professor; B.S.E.E., Indian Institute of Technology, Kharagpur; M.S.E.E., Southern Illinois University, Ph.D., Purdue University.

Latifi, Shahram
(1989), Professor; B.S., M.S., Teheran University; M.S., Ph.D., Louisiana State University.

McGaugh, Eugene E.
(1989), Associate Professor; B.S., University of Kansas; M.S., University of Missouri; Ph.D., University of Kansas.

Muthukumar, Venkatesan
(2001), Associate Professor; B.S.E.E., Anna University India; M.S.E.E., Ph.D., Monash University, Australia.

Regentova, Emma
(2001), Associate Professor; M.S.C.E., Ph.D., State Engineering University of Armenia.

Saberinia, Ebrahim
(2004), Assistant Professor; B.S.E.E., M.S.E.E., Sharif University of Technology; Ph.D., University of Minnesota.

Schill, Robert A.
(1993), Professor; B.S.E.E., Milwaukee School of Engineering; M.S.E.E., Ph.D., University of Wisconsin-Madison.

Singh, Sahjendra N.
(1986), Professor; B.S., Patna University; M.E., Indian Institute of Science; Ph.D., The Johns Hopkins University.

Stubberud, Peter
(1991), Associate Professor; B.S., M.S., Ph.D., University of California, Los Angeles.

Venkat, Rama
(1989), Professor; B.Tech., Indian Institute of Technology; M.S., Ph.D., Purdue University.

Yang, Mei
(2004), Assistant Professor; B.E.C.E., M.E.C.E.,
University of Electronic Science and Technology of
China; Ph.D., University of Texas at Dallas.

Professors Emeriti

Brogan, William L.
(1990-1998), Emeritus Professor; B.S.M.E., State
University of Iowa; M.S., Ph.D., University of California,
Los Angeles.

Martinez, Ramon
(1971-2004), Emeritus Professor; M.S.E.E., Worcester
Polytechnic Institute.

Tryon, John G.
(1975-1986) Emeritus Professor; B.Phys., University of
Minnesota; Ph.D., Cornell University.

Electrical engineering is the application of scientific and mathematical principles to the design, manufacture, and control of structures, machines, processes, and systems. In the past, the work of electrical engineers has had a direct and vital impact on people's lives. For example, electrical engineers have been responsible for the creation of electric power, modern electronics, computers, electronic communication systems, modern flight controllers, automated manufacturing and medical diagnostic tools. An electrical engineering education continues to provide opportunities for solving problems of great social significance and for increasing people's 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, our faculty are 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, nano technologies and solid state devices. At UNLV, students have the opportunity for personal interaction so that programs and research projects can be tailored to student interests.

The Department of Electrical and Computer Engineering offers a wide array of high-technology computing and research facilities. Through the department, as well as the college, graduate students have access to a large network of personal computers and scientific workstations. These include a number of high-performance Sparc stations, Silicon Graphics workstations, Windows-based personal computers, and Apple Macintosh computers. Available software includes layout tools, logic synthesis tools, processing and demo modeling tools, signal and image processing tools, and microwave design tools. Further, graduate students have access to Cray YMP 2/216 and Convex C220 supercomputers. The department's high technology research equipment includes a C-V profiler, Hall mobility measurement system, diffusion furnace, vacuum evaporative system, pulsed power systems, precision power

analyzer, state-of-the-art test and measurement equipment including spectrum and network analyzers and digital scanners.

Electrical Engineering M.S.E.E.

Applications 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 but not completing all of the M.S.E.E. degree requirements. Only 15 credits taken as a UNLV non degree student will count for an M.S.E.E. degree.

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. (Applicants who possess a bachelor's degree in a closely related discipline, such as physics or mathematics, may be admitted on provisional status. These students will be required to complete certain undergraduate courses before they can attain regular status. The graduate committee determines these courses on an individual basis. 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 to the department. These applicants may be admitted subject to the discretion 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 scores if the applicant did not obtain his bachelor's degree from an ABET accredited institution. (An applicant possessing a bachelor's degree from an ABET accredited institution is not required to submit GRE scores.)
4. Submit a completed application form and official transcripts of all college-level work to the Graduate College. In addition, submit a one page written statement of purpose indicating the applicant's research interests, motivations and objectives, three dated letters of recommendation concerning the applicant's potential for succeeding in the graduate program and an additional set of transcripts of all college-level work directly to the Department of Electrical and Computer Engineering.
5. For international applicants to be considered for admission, the Graduate College requires that they take the Test of English as a Foreign Language (TOEFL)

and obtain a minimum score of 80 on the internet based examination. Students whose first language is not English may be required to take 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. These courses will not count towards their graduate degree.

Degree Requirements

All M.S.E.E. candidates must maintain an overall minimum grade point average (GPA) of 3.00 (B) and a minimum GPA of 3.00 (B) each semester. Students who do not maintain an overall GPA of 3.00 (B) and a GPA of 3.00 (B) each semester will either be placed on probation or expelled from the program. The Electrical and Computer Engineering Graduate committee and the Graduate College will determine the terms of the student's probation in accordance with the Graduate College and department policy. All regular status graduate students must file an approved program before the completion of their second semester. The student's advisor, the graduate coordinator, and the Graduate College Dean must approve this program.

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 progress towards their degree program is not satisfactory, students will either be placed on probation or expelled from the program.

Specific requirements

1. Satisfy the M.S.E.E. degree program admission requirements and be admitted to the M.S.E.E. program on a regular status.
2. Complete a minimum of 30 credits of graduate-level courses with an overall minimum GPA of 3.00 (B) 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.E. degree and must be repeated or replaced. Continued enrollment of a student who earns more than one grade below B- is contingent upon the approval of the committee.

Thesis Option: A total of 30 credits is required for the Thesis Option. Of the 30 required credits, a minimum of 18 credits must be in electrical engineering courses, a minimum of 15 credits must be excluding ECG 796 and ECG 797, and no more than three credits may be from: ECG 791 - Independent Study in Electrical Engineering Graduate Independent Study. Students opting for the Thesis Option must complete at least six credits of: ECG 797 - Electrical Engineering Thesis (Electrical Engineering Thesis). Although ECG 797 can be taken repeatedly, no more than six credits can be applied towards the M.S.E.E. degree.

Course Only Option: A total of 33 credits is required for the Course Only Option. Of the 33 required credits, a minimum of 18 credits must be in electrical engineering courses, a minimum of 15 credits must be

in 700-level electrical engineering courses and no more than three credits may be from ECG 791 (Graduate Independent Study). The Course Only Option is a terminal degree.

3. Successfully complete a minimum of three credits in at least three of the following areas:
 - a. Computer Engineering
 - b. Communications
 - c. Control Systems
 - d. Electromagnetics and Optics
 - e. Electronics
 - f. Power Systems
 - g. Signal Processing
 - h. Solid State Electronics, Materials and Devices
4. Thesis Option Only: Complete a thesis. 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 student must complete a thesis containing original research and defend it before his/her advisory committee at the Thesis Exam. The student can receive no more than six credits of ECG 797 (Electrical Engineering Thesis) for the work associated with the thesis. Students who plan to continue their studies beyond the M.S.E.E. degree program are strongly encouraged to select this option.
Thesis Exam: 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 of the date, time and location of the oral defense of the thesis or project at least two weeks in advance.

Time Limits

The Department of Electrical and Computer Engineering requires that the M.S.E.E. degree be finished within a period of six years. Courses taken more than six years prior to graduation may not be applied toward the M.S.E.E. degree.

No Risk Ph.D. Pre-Qualifying Exams

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. student. The exam may be taken as many times as desired but no more than once a semester. Those areas that the student passes will count towards his/her qualifying exam requirement upon entering the Ph.D. program. The candidate must complete an M.S. degree in the Electrical and Computer Engineering department. Once the student receives an M.S. degree in Electrical Engineering, the student must abide by the requirements outlined in the Ph.D. program. This option is not available to nondegree students.

Electrical Engineering Ph.D.

The Department of Electrical and Computer Engineering at UNLV offers a program leading to the Ph.D. degree in Engineering in the field of Electrical Engineering. Specific major areas of study currently available include: Communications, Computer Engineering, Control System Theory, Electromagnetics and Optics, Power Systems, Signal Processing, and Solid State Materials and Devices.

Admission Requirement

Applicants are considered on an individual basis. One may be admitted to the Ph.D. program by one of two mechanisms. The Conventional Ph.D. Option requires the student to complete an M.S. degree in Electrical and Computer Engineering. The Direct Ph.D. Option allows those undergraduates with outstanding undergraduate backgrounds to enter the Ph.D. program without having to complete an M.S. degree in Electrical and Computer Engineering. 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.

Conventional Ph.D. Option

Applications are considered on an individual basis. Candidates can be admitted on a regular or provisional status. Qualified applicants who are not admitted can take a few graduate courses as a non degree student not completing all of the Ph.D. requirements. Only 15 credits taken as a graduate non admitted student can count toward the degree. To be considered for admission to the Ph.D. program, an applicant must:

1. Have a Master of Science (M.S.) degree in electrical engineering or computer engineering;
2. Have a minimum overall grade point average (GPA) of 2.0 (A=4.00) for their master's degree;
3. Submit GRE scores to the department and have obtained the following minimum scores:

| Section | % Below |
|--------------|---------|
| Quantitative | 75 |

4. Submit a completed application form and official transcripts of all college-level work to the Graduate College. In addition, submit a one page written statement of purpose indicating the applicant's research interests, motivations and objectives, three dated letters of recommendation concerning the applicant's potential for succeeding in the graduate program and an additional set of transcripts of all college-level work directly to the Department of Electrical and Computer Engineering.

Direct Ph.D. Option

Applications are considered on an individual basis. To be considered for admission to the Ph.D. Program, an applicant must:

1. Have a minimum overall grade point average (GPA) of 3.50 (A=4.00) for their bachelor's degree;
2. Submit GRE scores to the department and have obtained the following minimum scores:

| Section | % Below |
|--------------|---------|
| Quantitative | 75 |

3. Submit a completed application form, a written statement of purpose indicating the applicant's interests and objectives, three letters of recommendation concerning their potential for succeeding in the Ph.D. program, and official transcripts of all college-level work to the Graduate College.
4. Submit a completed application form and official transcripts of all college-level work to the Graduate College. In addition, submit a one page written statement of purpose indicating the applicant's research interests, motivations and objectives, three dated letters of recommendation concerning the applicant's potential for succeeding in the graduate program and an additional set of transcripts of all college-level work directly to the Department of Electrical and Computer Engineering.

International Applicants

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. Student's whose first language is not English may be required to take 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. These courses will not count toward their graduate degree.

Ph.D Degree Requirements

All Ph.D. candidates must maintain a minimum overall grade point average (GPA) of 3.20 and a minimum GPA of 3.20 each semester. Ph.D. candidates who do not maintain an overall GPA of 3.20 and a GPA of 3.20 each semester 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.

All regular status graduate students must file an approved program before the completion of their first 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.

Consecutive order of specific requirements for both the Direct and the Conventional Ph.D. options are:

1. Satisfy the Ph.D. degree program admission requirements and be admitted to the Ph.D. program on a regular status.
2. Pass the Qualifying Exam within two semesters of being admitted to the Ph.D. program on a regular status. The Qualifying Exam is offered once every Fall semester and once every Spring semester. This exam cannot be taken more than twice. The Qualifying Exam is described in Section 4.3 of the Graduate Program Document.
3. 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 five members of the UNLV Graduate Faculty. Three of these faculty members must be from the Department of Electrical and Computer Engineering, the fourth from a relevant supporting field, and the fifth is appointed by the Graduate College.
4. Beyond the M.S. degree, a Ph.D. student must complete a minimum of 27 credits of graduate-level courses with an overall minimum GPA of 3.20 and a minimum GPA of 2.70 (B-) in each class applied towards the 27 credits. Candidates in the Direct Ph.D. program must complete a minimum of 51 (24 M.S. + 27 Ph.D.) required credits. Grades below B- are not counted towards the Ph.D. degree and must be repeated or replaced.

Direct Ph.D. Option

Continued enrollment of a student who earns more than one grade below B- is contingent upon the approval of the graduate committee. Of the 51 required credits, a minimum of 33 credits must be in 700-level courses, and no more than six credits may be from ECG 791 (Graduate Independent Study). The student's doctoral advisory committee may add more requirements in accordance with the individual's background and field of study.

1. Beyond the bachelor's degree, a Ph.D. student must complete a minimum of 15 credits in an approved major field, nine credits in each of the two approved minor fields. A minimum GPA of 3.33 (B+=3.30) must be obtained in each of the minor fields. Approved major and minor fields are described in detail in Section 4.8 of the Graduate Program Document.
2. After passing the Qualifying Exam, successfully completing all courses for a major field, and successfully completing all courses for the minor fields, 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 of ECG 799 (Dissertation). NOTE: Up to six credits of:

3. ECG 799 - Dissertation taken prior to the successful completion of the Preliminary Exam may count toward the degree program. The Comprehensive Exam cannot be taken more than once per semester and cannot be taken more than twice. If the student's GPA during his/her Ph.D. study is 3.8 or higher, comprehensive exam can be waived upon the approval of the Graduate Program Committee (GPC). If the student's GPA is below 3.8, he/she will need to write this exam. The Comprehensive Exam is described in detail in Section 4.4 of the Graduate Program Document.
4. After successfully completing all required course work and passing the Comprehensive Exam, the students must pass the Preliminary Exam. The Preliminary Exam cannot be taken more than once per semester but may be repeated until passed. The Preliminary Exam is described in detail in Section 4.5 of the Graduate Program Document.
5. Complete a minimum of 18 credits of; ECG 799 - 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 described in detail in Section 4.6 of the Graduate Program Document.

Conventional Ph.D. Option

Continued enrollment of a student who earns more than one grade below B- is contingent upon the approval of the graduate committee. Of the 27 required credits, a minimum of 18 credits must be in 700-level courses, and no more than three credits may be from ECG 791 (Graduate Independent Study). The student's doctoral advisory committee may add more requirements in accordance with the individual's background and field of study.

Ph.D. Major and Minor Fields

Beyond the bachelor's degree, a Ph.D. student must complete a minimum of 15 credits in a major field, nine credits in a minor field of a single area in Electrical and Computer Engineering, and another nine credits in a second 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 later in this section of the manual. Each student must complete two minor fields. To complete a minor field, a student must complete a minimum of nine credits in an approved minor field and have an overall minimum GPA of 3.33 (B+=3.30) for the nine minor field credits. Of the nine required credits in each minor field, a minimum of six credits must be in 700-level courses.

Specific courses that can be applied to specific minor fields are listed in detail in this section of the manual. Some courses may be listed under two different fields. Such a course can be applied to only one field. With the written approval of the major advisor and the student's advisory committee, a mixed minor field may be formed with courses inside and/or outside of the Electrical Engineering department's approved fields (e.g., a mixed minor in mathematics and physics, a mixed minor in computer engineering and computer science, a physics minor, a mechanical engineering minor, solid state and electromagnetics mixed minor, etc.). A mixed minor may not be composed of courses in the Electrical Engineering Department that satisfy course work in the major and 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 in Electrical Engineering in a single area. Refer to the department's Graduate Program Handout regarding specific courses that can be applied to specific minor fields.

International Applicants

For international applicants to be considered for admission, the Graduate College requires they take the Test of English as a Foreign Language (TOEFL) and obtain a minimum score of 550 or 85 on the Michigan Test. Student's whose first language is not English may be required to take 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. These courses will not count toward their graduate degree.

Graduate Teaching Assistantships

The Department of Electrical and Computer Engineering has a limited number of Teaching Assistantships that are awarded to superior students. To be considered for a teaching assistantship, a student must submit Graduate Record Examination (GRE) scores to the Department of Electrical and Computer Engineering. Prospective students should contact the department's Graduate Coordinator for additional information and refer to the Graduate Catalog for submission deadlines.

Teaching Assistants perform an average of 20 hours per week of teaching related service and are required to complete a minimum of six credit hours per semester. Teaching Assistants who are also working toward the M.S.E.E. degree must take the Thesis Option. Teaching Assistants who do not adhere to these requirements, do not perform their teaching duties satisfactorily, or do not maintain the minimum GPA requirements specified by their degree programs can lose their assistantships and/or will be placed on probation. The Electrical and Computer Engineering Graduate Committee will determine the terms of the student's probation. International Teaching Assistants are required to receive a passing score (50 out of 60 points)

on the Test of Spoken English (TSE) prior to assuming any type of instructional duties.

Course Descriptions

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 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.

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 610 - Hardware Description Language: VHDL

Credits 3

Modern methodologies in design and test of digital/computer systems. Primary focus on very high speed integrated circuit systems. Primary focus on very high speed

integrated circuit hardware description languages, in particular, VHDL. Verilog and other hardware programming languages explored. Behavior level simulation, debugging. Introduction to synthesis, placement and routing.

ECG 615 - Introduction to VLSI System Design

Credits 3

Introduction to the theory, design and implementation of digital VLSI systems including MOS transistor theory and integrated circuit fabrication technology, digital system design, layout and design rules and use of CAD tools.

ECG 622 - Introduction to Analog Integrated Circuit Design

Credits 3

Design of CMOS, BICMOS, and bipolar analog integrated circuits. Topics include device models, current mirror design, single stage amplifier design, differential amplifier design, frequency response analysis and noise analysis.

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 650L - Solid State Characterization Laboratory

Credits 1

Capacitance and voltage. Hall mobility and carrier concentration, oxidation and etching silicon dioxide processing of silicon.

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 - Advanced Digital Communications

Credits 3

Information theory and fundamental limits on performance, digital coding of waveforms, pulse shaping for baseband transmission, digital bandpass modulations, channel coding.

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. Note: 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 703 - Advanced Digital Logic

Credits 3

Sets, relations, and lattices. Switching algebra and its applications, functional decomposition and symmetric functions, Turing machine, finite state recognizer.

Prerequisites: ECG 100**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 705 - Fault-Tolerant Computing

Credits 3

Fault-tolerant design of digital systems. Static, dynamic, hybrid, self-purging redundancies. Error-correcting codes and system diagnosis. Fault-tolerance in multiprocessor and VLSI based-systems, including token BUS, shared memory interconnections, and tree, binary cube and loop networks. Examples of practical fault-tolerant systems. **Prerequisites:** ECG 300

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**CG 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 708 - Biosurveillance

Credits 3

Introduction to biosurveillance systems (biowatch, ESSENCE, RODS), initiatives (biosense) and biodata organizations (CDC, HIS, DHS), biosensors, biosurveillance, data collection and analysis, false positive/negative rates, sensitivity and specificity. Statistical signal processing tools used in classification and decision making, real-time biosurveillance and network support.

Prerequisites: Graduate standing.**ECG 709 - Synthesis and Optimization of Digital Systems**

Credits 3

Study of the high-level synthesis and optimization algorithms for designing SOC's 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 - Electronic Design with Integrated Circuits
Credits 3

Designing electronics systems using linear and digital integrated circuits. Topics include operational amplifiers, linear and nonlinear applications, waveform generation, low noise circuits, active filters, digital ICs. A/D conversion, grounding and shielding, and system design. Intended for electrical and electronic students.

Prerequisites: ECG 421, ECG 420 and consent of instructor.

ECG 721 - Low Noise Electronics
Credits 3

Noise mechanisms in semiconductor devices, noise calculations, low noise designs, high gain multistage amplifiers, matched filters, shielding. **Prerequisites:** Graduate standing or consent of instructor.

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 750 - Optical Electronics I

Credits 3

Propagation of rays and beams, optical beams in fibers, resonators, laser oscillation, electro-optic, modulation, laser systems. **Prerequisites:** MATH 432, ECG 330, ECG 452 or consent of instructor.

ECG 751 - Optical Electronics II

Credits 3

Detection of optical radiation, optical dielectric waveguides, semiconductor lasers, phase conjugate optics, laser applications including holography. **Prerequisites:** ECG 750

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 754 - Hybrid Microelectronics
Credits 3

Vacuum theory, thin and thick film fabrication, electron transport phenomena, electronic properties active and passive films, distributed networks, designing hybrid microcircuits. **Prerequisites:** Graduate standing or 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 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 761 - Spectral Analysis and Time Series
Credits 3

Stationary random processes. Spectral representation. Estimation of correlation functions and spectra. Higher order spectra and nonlinear system models. **Prerequisites:** ECG 460, ECG 760 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 770 - Linear Systems Theory
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 Controls
Credits 3

Review of analysis of linear control systems, optimal control systems, time and frequency domains, regulator problems, deterministic and random processes. Note: Topics selected according to the interests of the class. **Prerequisites:** ECG 770

ECG 772 - Nonlinear Systems I
Credits 3

Introduction, differential equations, approximate analysis methods, Lyapunov stability, input-output stability. **Prerequisites:** ECG 770 or consent of instructor.

ECG 773 - Multivariable Control
Credits 3

Mathematical preliminaries, frequency domain representation, differential operator representation, linear state feedback, frequency domain compensation, fractional approaches, recent topics in control. **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 775 - Nonlinear Systems II

Credits 3

Geometric approach to nonlinear systems, inversion of input-output map, decomposition, noninteraction, disturbance decoupling, exact linearization, nonlinear control synthesis, Volterra series, realization theory.

Prerequisites: ECG 772 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 777 - Robotic Systems Control

Credits 3

Dynamics of rigid and elastic robotic systems, trajectory planning, inverse torque computation, adaptive control, variable structure control, torque and force feedback control.

Prerequisites: 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. Note: 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 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. Note: May be repeated to a maximum of six credits. **Prerequisites:** Graduate standing in electrical engineering or related field and consent of instructor.

ECG 796 - Electrical Engineering Project

Credits 1 – 3

Advanced project in electrical engineering.

Note: 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

Note: 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.

Note: 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.

School of Informatics

Director

Berghel, Hal
(1999), Professor; B.A., M.A., M.A., Ph.D., University of Nebraska, Lincoln.

Graduate Coordinator

Nasoz, Fatma
(2006), Assistant Professor; B.S., Bogazici University; M.S., Ph.D., University of Central Florida.

Graduate Faculty

Aalberts, Robert J.
(1991), Leid Professor; B.A., Bemidji State University; M.A., University of Missouri; J.D., Loyola University.

Brewer, Kathleen Pearl
(1993), Professor; B.S., M.S., Ph.D., Purdue University.

Jo, Ju-Yeon
(2006), Assistant Professor; B.S., Dongguk University; M.S., The University of Connecticut; Ph.D., Case Western Reserve University.

Palmer, Craig
(1995), Adjunct Professor; B.S., Brigham Young University; Ph.D., University of Missouri-Columbia.

Rice, Stephen
(1996), Professor; B.S., M. Engr., Ph.D., University of California, Berkeley.

Informatics addresses the impact technology has on people, the development of new uses for technology and the application of information technology in the context of another field. Information technology (IT) is rapidly changing the world, creating new challenges and opportunities every day. In fact, the impact of IT is so great that a new field, informatics, was created to study it. Informatics equips students to study IT, consider its social impact, and find ways to use technology to solve problems. Usually, informatics is used within another field, and a number of specializations are now identified, such as bioinformatics, cybersecurity, chemical informatics, human-computer interaction design, new media, and healthcare informatics.

The following are exemplars of new informatics areas:

- digital cinematography (Entertainment Informatics)
- design of interactive IT systems for resorts and casinos (Hospitality Informatics)
- design of digital interfaces in computing, entertainment, digital appliances, etc. (Digital Media/Human Computer Interaction)
- developing anti-spam and anti-phishing tools (Cybersecurity)
- computing and Network Forensics (Cybersecurity)
- innovation with virtual reality technologies (Digital Media/Human Computer Interaction)

- developing medical information system tools (Healthcare Informatics)
- digitizing the choreography of a play (Entertainment Informatics)
- understanding the human genome (BioInformatics)

In many ways, informatics is a bridge connecting IT to a particular field of study such as biology, chemistry, fine arts, telecommunications, geography, engineering, business, economics, journalism, etc. Because of this, all Informatics students choose a field or discipline that interests them (which we call a cognate). The cognate allows them to follow their own personal interests, and take courses in other programs at UNLV.

Some cognates lead to recently recognized disciplines, as ecology leads to eco-informatics. Other cognates lead to well-understood careers that are just now emerging as disciplines, such as fine arts leading to the design of interactive Internet Web sites, animations, digital motion pictures, and interactive art. For those interested in computers and programming, the computer science cognate adds further technology strength to our human-centered, problem solving curriculum.

Graduates from the School of Informatics will possess the skills to apply information technology deeply and effectively in related disciplines, referred to as cognate areas. These graduates will be ideally suited to achieve profound advances in these cognate areas. At the graduate level, the School of Informatics offers M.S. and Ph.D. degree programs in Informatics. Each degree program has different curriculum requirements.

Informatics M.S.

The objective of the M.S. in Informatics is to provide graduates with a balanced mix of theoretical and practical knowledge of Informatics. Graduates will be capable of assisting organizations of all sizes in leveraging information technology in other disciplines.

Admission Requirements

Admission to the program may be granted for either the Fall or Spring semester. Admission requirements include:

1. Online application to the Graduate College.
2. Bachelor's degree degree in informatics, computer science, information systems, information science or one of the cognate areas.
3. A minimum undergraduate GPA of 3.0 or a 3.25 for the last 2 years of undergraduate work is required.
4. GRE 1200 minimum with no less than 500 in either the verbal or quantitative test.
5. TOEFL minimums of 213 (Computer), 550 (paper), 80 (Internet) for international applicants.
6. Three letters of recommendation from former instructors or employers that address the applicant's potential as a graduate student in the informatics area.

7. Academic transcripts.
8. Resume.
9. A personal statement of purpose, which should be as specific as possible, and should include the applicant's objectives and areas of interest(s).

Degree Requirements

The degree is comprised of 36 credits of coursework. Fifteen (15) credits comprise an essential set of core courses. Fifteen (15) credits address elective topics or pre-approved courses from cognate areas. Students must complete:

INF 790 - Informatics Project and:
INF 792 - Internship.

The informatics core courses include:

INF 700 - Theoretical Foundations of Informatics
INF 710 - Informatics Systems and Networks
INF 720 - Information Security
INF 730 - Human Computer Interaction
INF 740 - Digital Media Design, Technology and Representation

Notes:

- * Master's degree with "thesis-option" is also available. The thesis option would be consisted of the same coursework load as the "non-thesis option" except that at least 6 credits of M.S. thesis work would take the place of INF 790 Informatics Project and one of the Cognate or Informatics Elective Course.
- * Students must meet a minimum 3.0 GPA for graduation. Students must also agree to abide by the Association for Computing Machinery's "Code of Ethics and Professional Conduct" for computing professionals (<http://www.acm.org/constitution/code.html>).

Informatics Ph.D.

The objective of the Ph.D. in Informatics is to provide graduates with an extensive conceptual framework for, and background in Informatics and to prepare them to conduct research in the field.

Admission Requirements

In addition to the requirements of the Graduate College, applicants for admission to the Ph.D. program in Informatics must meet the following requirements.

1. Online application to the Graduate College.
2. Master's degree in informatics, computer science, information systems, information science, other closely related discipline, or one of the cognate areas. An unusually capable student with a Bachelor's degree may be admitted to work directly for the PhD degree.

3. A GPA of 3.3 or higher in post-baccalaureate course work.
4. GRE 1200 minimum with no less than 500 in either the verbal or quantitative test.
5. TOEFL minimums of 213 (Computer), 550 (paper), 80 (Internet) for international applicants.
6. Three letters of recommendation from former instructors or employers that address the applicant's potential as a graduate student in the informatics area.
7. Academic transcripts.
8. A personal statement of purpose, which should be as specific as possible, and should include the applicant's objectives and areas of interest(s).
9. Resume

Degree Requirements

The Ph.D. degree is awarded to a candidate who has demonstrated breadth of knowledge in informatics 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. To successfully complete the Ph.D. program a student must fulfill all the Graduate College degree requirements as well as the following requirements:

1. Complete a minimum of 81 credits of course work (or Master's in Informatics + a minimum of 45 credits at PhD level)
2. Complete 18 credits of:
INF 799 - Dissertation Research.
3. Complete 9 credits of Research Methods courses, 3 of which must be in Informatics.
4. Satisfactorily pass the written comprehensive examination.
5. Satisfactorily pass an oral qualifying examination.
6. Prepare a dissertation that must be acceptable to his or her Ph.D. committee.
7. Satisfactorily pass an oral defense of the dissertation examination.
8. Maintain a satisfactory rate of progress.

A student entering the Ph.D. program with a master's degree in Informatics is required to take at least 45 credits of course work subject to the following conditions:

1. At least 15 credits must be in informatics (including 3 credit INF Research Methods).
2. At least 9 credits must be outside of informatics, i.e., in a cognate area (including 6 credit Research Methods).
3. At least 12 credits of informatics courses must be at the 700-level (excluding INF 799 credits).
4. Includes 18 credits of:
INF 799 - Dissertation Research.
5. Includes 9 credits of Research Methods courses, 3 of which must be in Informatics.

Students must meet a minimum 3.0 GPA for graduation. Students must also agree to abide by the Association for Computing Machinery's "Code of Ethics

and Professional Conduct” for computing professionals (<http://www.acm.org/constitution/code.html>).

The Qualifying Examination

The qualifying examination is an oral examination designed to test the depth and breadth of the student’s knowledge in his or her area of research specialization. It must be taken before either (a) 2 years after passing the comprehensive examination or (b) 4 years after entering the Ph.D. program. 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. The examination must be conducted by the student’s Ph.D. committee. This committee consists of five faculty members of whom one must be from outside the Proposed School of Informatics. The student’s advisor is the chairperson of this committee. The faculty member from outside the school is selected by the Graduate College from three faculty members who are suggested by the student in consultation with his or her advisor.

The student must prepare a dissertation proposal prior to taking this examination. This proposal should have already been approved by the student’s advisor. This proposal must be given to the Ph.D. Advisory 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.

The student begins the exam with a presentation of his or her 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. The examination cannot be taken more than twice. After successful completion of the qualifying examination, the student is advanced to candidacy for the degree.

Preparation of Dissertation

The candidate must prepare a dissertation on his or her research. The Ph.D. dissertation should represent a significant original research contribution to the field of informatics.

Oral Defense

After completion of the dissertation the candidate must pass a final oral examination in 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 his or her dissertation at most twice. The Ph.D. dissertation must be approved by each member of the student’s PhD Advisory Committee.

Satisfactory Progress

To maintain satisfactory progress in the Ph.D. program a student must:

1. Pass the comprehensive examination within 2.5 years of entering the Ph.D. program.
2. Maintain a minimum grade point average required by the Proposed School of Informatics.
3. Pass the qualifying examination within 4 years of entering the Ph.D. program.
4. Maintain satisfactory progress towards research.
5. Students must complete all requirements for the Ph.D. degree within six years.

If these requirements are not met the school may place the student on academic probation or drop him/her from the Ph.D. program.

Course Descriptions

INF 700 - Theoretical Foundations of Informatics

Credits 3

Overview of theoretical concepts in informatics, including first-order logic, computability theory, graph theory, sets and relations, combinatorial math, and statistics.

Prerequisites: Consent of instructor.

INF 710 - Informatics Systems and Networks

Credits 3

In-depth study of various types of information systems and networks. Topics include: types of information systems; data and knowledge management; computer networks and the Internet; wireless and mobile network; e-business and e-commerce; network management. **Prerequisites:** Consent of instructor.

INF 720 - Information Security

Credits 3

Overview of the principles and the technologies behind information security. Topics include: risks and vulnerabilities; principles of information security; encryption; security mechanisms in information systems; administration of information security, information crime, and legal and ethical issues. **Prerequisites:** Consent of instructor.

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. Note: 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. Note: 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. Note: 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. Note: May be repeated but no more than eighteen credits will be allowed in the degree. **Prerequisites:** Passing the written comprehensive examination.

Mechanical Engineering

Chair

Trabia, Mohamed
(1987), Professor; B.S., M.S., Alexandria University;
Ph.D., Arizona State University.

Graduate Coordinator

Yim, Woosoon
(1987), Professor; B.S., Hanyang University; M.S., Ph.D.,
University of Wisconsin-Madison.

Graduate Faculty

Boehm, Robert F.

(1990), Professor; B.S., M.S., Washington State University; Ph.D., University of California, Berkeley; P.E., California.

Chen, Yi-Tung

(1993), Associate Professor; B.S., Feng Chia University; M.S., Ph.D., University of Utah.

Cook, Daniel

(2005), Assistant Professor; B.S., Ohio State University; M.S., Ph.D., University of California, Berkeley.

Culbreth, William G.

(1985), Associate Dean of College of Engineering, Associate Professor; B.S., California State Polytechnic University, Pomona; M.S., Ph.D., University of California, Santa Barbara.

Mauer, Georg F.

(1986), Professor; Diploma-Ingenieur; Ph.D., Technical University of Berlin.

Moujaes, Samir F.

(1984), Professor; B.S., M.S., American University of Beirut; Ph.D., University of Pittsburgh; P.E., Nevada.

O'Toole, Brendan J.

(1992), Associate Professor; B.S., M.S., Ph.D., University of Delaware.

Pepper, Darrell W.

(1992), Professor; B.S., M.S., Ph.D., University of Missouri-Rolla.

Quan, Shizhi

(2005), Assistant Professor; B.S., Ph.D., Huazhong University of Science and Technology; Ph.D., University of Pennsylvania.

Reynolds, Douglas D.

(1983), Professor; B.S., Michigan State University; M.S., Ph.D., Purdue University.

Rice, Stephen

(1996), Associate Vice President for Research & Economic Development; B.S., M.Eng., Ph.D., University of California, Berkeley.

Roy, Ajit

(2001), Associate Professor; B.S., University of Calcutta, M.S., University of Aston, Ph.D., Case Western Reserve University.

Eric Sandgren

(2003), Professor and Dean; BSME, MSME, Ph.D. Purdue University

Wang, Zhiyoung

(1998), Associate Professor; B.S., M.S., Ph.D., Harbin University of Science and Technology.

Wells, William R.

(1986), Professor; B.S., Georgia Institute of Technology; M.A., Harvard University; M.S., Ph.D., Virginia Polytechnic Institute.

Among the subjects taught and researched by the faculty of the mechanical engineering program are the following:

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.

Aerospace Engineering M.S.A.E.

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.

Admission Requirements

In addition to the general requirements for admission to the Graduate College, 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.

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.

Degree Requirements

Procedures and requirements for the M.S.A.E. will be prescribed by the Graduate College under Academic Policies, with additional provisions as follows:

1. At least 15 credits must be from 700-level courses, and at least 15 credits must be from engineering courses.
2. Students may choose, subject to approval by the student's graduate committee, one of the two options listed below.

Thesis Option: 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. The final examination will include a defense of thesis.

Non-Thesis Option: Requires 33 credits of approved graduate courses. At least 18 credits must be earned from 700-level courses, of which 15 must be in engineering. To complete the Non-Thesis option, students must also successfully complete the Design Project course (ME 796 - Design Project in Mechanical Engineering) or pass a comprehensive written and oral exit exam before receiving their degree.

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. 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 just 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.

Students must choose three courses from the following list of courses:

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

In addition students must select at least two courses selected from the following list:

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

Biomedical Engineering M.S.B.E.

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.

Students are required to take a common core of introductory biomedical engineering and health science courses plus courses in at least one of the three following areas: 1.) biomechanics, ergonomics, and human factors; 2.) imaging and instrumentation; or 3.) fluid mechanics and transport processes.

Admission Requirements

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. Application must be made to the Department of Mechanical Engineering. Applications must include all documentation as required by the Graduate College. The Department of Mechanical Engineering will admit the student and supervise the student's M.S. program.
2. 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.
3. The applicant must submit a written statement of purpose indicating interests and objectives in working toward a M.S. degree. In addition, two letters of recommendation for the M.S.-level of study must be submitted. The statement and letters should be sent to the department.
4. Foreign applicants must take and obtain a satisfactory score of a minimum of 550 (213 computerized) on the TOEFL exam as required by the Graduate College.
5. The applicant must obtain a satisfactory score on the Graduate Record Exam (GRE) as determined by the GPC.
6. 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 postbaccalaureate 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.
7. The UNLV Graduate College must formally admit the applicant.

Integrated BS-MS Degree Program

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.

Degree Requirements

Procedures and requirements for the M.S.B.E. will be prescribed by the Graduate College under Academic Policies, with additional provisions as follows:

1. At least 15 credits must be from 700-level courses, and at least 15 credits must be from engineering courses. Students are required to take a common core of introductory biomedical engineering and health science courses plus courses in an area of specialization. The areas of specialization include 1) transport processes, 2) Imaging and Instrumentation, 3) biomechanics and human factors and:

Biomedical Sciences Core

All students must take at least two of the courses below (note that courses numbered below 600 do not count toward the hours required for the M.S.B.E. degree).

BIO 209 Introduction to Cell Biology
BIO 360 Mammalian Physiology
CHE 225 Organic Chemistry I
BIOL 730A-D - Special Lectures in Life Sciences
KIN 738 - Human Physiology

Transport Processes Option (T)

Students in this option must take at least three courses from the following list:

KIN 744 - Thermoregulation During Physical Work
ME 616 - Introduction to Biomechanical Engineering
or
ME 416 Introduction to Bioengineering (T1)
ME 700 - Advanced Fluid Mechanics I
ME 702 - Computational Fluid Dynamics
ME 704 - Finite Element Applications in Mechanical
ME 706 - Convective Heat Transfer
ME 710 - Transport Phenomena in Bioengineering
ME 711 - Advanced Thermodynamics

Imaging and Instrumentation Option (I)

Students in this option must take at least three courses from the following list:

CS 669 - Introduction to Digital Image Processing
ECG 456 Introduction to Biomedical Signals & Systems (I1)
or
ECG 656 Introduction to Biomedical Signals & Systems (I1)
ECG 731 - Theoretical Techniques in Electromagnetics
ECG 732 - Advanced Engineering Electromagnetics II
ECG 751 - Optical Electronics II
ECG 752 - Physical Electronics
ECG 753 - Advanced Topics in Semiconductor Devices I
ECG 756 - Advanced Topics in Semiconductor Devices II
ECG 758 - Numerical Methods in Engineering

Biomechanics and Human Factors Option (B)

Students in this option must take at least three courses from the following list:

ME 616 - Introduction to Biomechanical Engineering
CEE 678 - Applied Finite Element Analysis
CEE 767 - Human Factors in Transportation Engineering
CEE 774 - Introduction to Theory of Elasticity and
ME 774 - Introduction to Theory of Elasticity and Plasticity I
CEE 776 - Experimental Techniques in Structural
EGG 651 - Ergonomics
KIN 736 - Biomechanical Applications in Kinesiology
KIN 743 - Research Techniques in Biomechanics
ME 625 - Robotics
ME 653 - Mechanical Vibrations
ME 643 - Design Techniques in Mechanical Engineering
ME 646 - Composite Materials
ME 670 - Experimental Mechanics of Materials
ME 703 - Continuum Mechanics
ME 725 - Vibrations I
ME 726 - Vibrations II
ME 727 - Engineering Optimization
ME 729 - Advanced Robotics
ME 746 - Experimental Design and Analysis of Digital
Process Control Systems
ME 740 - Advanced Dynamics
ME 741 - Energy and Variational Methods in Applied
Mechanics I
ME 742 - Energy and Variational Methods in Applied
Mechanics II

Additional Degree Requirements

2. Students may choose, subject to approval by the student's graduate committee, one of the two options listed below:

Thesis Option: 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. The final examination will include a defense of thesis.

Non-Thesis Option: Requires 33 credits of approved graduate courses. At least 18 credits must be earned

from 700-level courses, of which 15 credits must be in engineering.

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. 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.

Materials & Nuclear Engineering M.S.M.N.E.

M.S.M.N.E. 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 subdiscipline.

Admission Requirements

In addition to the general requirements for admission to the Graduate College, an applicant for the M.S. in Materials and Nuclear Engineering program must complete the following requirements:

1. Application must be made to the Department of Mechanical Engineering. Applications must include all documentation as required by the Graduate College.

The Department of Mechanical Engineering will admit the student and supervise the student's M.S. program.

2. 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. in Materials and Nuclear Engineering degree and qualify the student to sit for the fundamentals of Engineering (FE) exam. The Graduate Program Committee (GPC) will decide upon special cases.
3. The applicant must submit a written statement of purpose indicating interests and objectives in working toward a M.S. degree. In addition, two letters of recommendation for the M.S.-level study must be submitted. The statement and letters should be sent to the department.
4. Foreign applicants must take and obtain a satisfactory score of a minimum of 550 (213 computerized) on the TOEFL exam as required by the Graduate College.
5. The applicant must obtain a satisfactory score on the Graduate Record Exam (GRE) as determined by the GPC.
6. 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 postbaccalaureate 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.
7. The UNLV Graduate College must formally admit the applicant.

Integrated BS-MS Degree Program

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.

Degree Requirements

Procedures and requirements for the M.S. degree will be prescribed by the Graduate College under Academic Policies, with additional provisions as follows:

1. At least 15 credits must be from 700-level courses and six credits of thesis are required. The remaining nine credits may be taken at the 600 or 700 level. Students must choose one of the following tracks:
 - a. **Materials Engineering Track** - Students must take three out of the following four courses:
 - ME 734 - Fracture of Engineering Materials
 - ME 732 - Mechanical Metallurgy
 - ME 741 - Energy and Variational Methods in Applied Mechanics I
 - ME 630 - Corrosion Engineering
 - b. **Nuclear Engineering** - For the Nuclear Engineering Track, students must take three out of the following courses:
 - PHYS 631 - Nuclear and Elementary Particle Physics or
 - RCDM 701 Applied Nuclear Physics

Suggested Electives for Materials Engineering Track

ME 742 - Energy and Variational Methods in Applied Mechanics II
ME 650 - Physical Metallurgy
ME 646 - Composite Materials
ME 670 - Experimental Mechanics of Materials

- b. **Nuclear Engineering** - For the Nuclear Engineering Track, students must take three out of the following courses:
 - PHYS 631 - Nuclear and Elementary Particle Physics or
 - RCDM 701 Applied Nuclear Physics

ME 655 - Fundamentals of Nuclear Engineering
ME 656 - Radioactive Waste Management
ME 706 - Convective Heat Transfer

Suggested Electives for Nuclear Engineering Track

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
ME 615 - Design of Thermal Systems

Additional Degree Requirements

2. Students may choose, subject to approval by the student's graduate committee, one of the two options listed below.
 - Thesis Option:** 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. The final examination will include a defense of thesis.
 - Non-Thesis Option:** Requires 33 credits of approved graduate courses. At least 18 credits must be earned from 700-level courses, of which 15 must be in engineering. To complete the Non-Thesis option, students must also successfully complete the Design Project course: ME 796 - Design Project in Mechanical

Engineering or pass a comprehensive written and oral exit exam before receiving their degree.

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.

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.

Mechanical Engineering M.S.E.

The Master of Science degree is designed to give postbaccalurate students an in-depth understanding of a specific area within mechanical engineering.

Admission Requirements

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. Application must be made to the Department of Mechanical Engineering. Applications must include all documentation as required by the Graduate College. The Department of Mechanical Engineering will admit the student and supervise the student's M.S. program.
2. 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.
3. The applicant must submit a written statement of purpose indicating interests and objectives in working toward a M.S. degree. In addition, two letters of recommendation for the M.S.-level of study must be

submitted. The statement and letters should be sent to the department.

4. Foreign applicants must take and obtain a satisfactory score of a minimum of 550 (213 computerized) on the TOEFL exam as required by the Graduate College.
5. The applicant must obtain a satisfactory score on the Graduate Record Exam (GRE) as determined by the GPC.
6. 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 postbaccalaureate 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.
7. The UNLV Graduate College must formally admit the applicant.

Degree Requirements

Procedures and requirements for the M.S. will be prescribed by the Graduate College under Academic Policies, with additional provisions as follows:

1. At least 15 credits must be from 700-level courses, and at least 15 credits must be from engineering courses. Students must choose one of the following options and take at least three of the courses listed under each respective option:
 - a. **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
 - b. **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
 - c. **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 742 - Energy and Variational Methods in Applied Mechanics II

ME 741 - Energy and Variational Methods in Applied Mechanics I

ME 743 - Applied Dynamic Finite Element Analysis

e. **Engineering Management**

CEE 609 - Engineering Project Management

MBA 702 - Statistical Analysis

MBA 706 - Law, Regulations and Ethical Issues

MBA 707 - Organizational Behavior

MBA 710 - Applied Economic Analysis

MBA 715 - Market Opportunity Analysis

ME 626 - Manufacturing Processes

ME 727 - Engineering Optimization

ME 701 - Advanced Fluid Mechanics II

e. **Mechanical and Environmental Systems**

ME 618 - Air Conditioning Engineering Systems

ME 653 - Mechanical Vibrations

ME 634 - Noise Control

ME 700 - Advanced Fluid Mechanics I

ME 706 - Convective Heat Transfer

ME 720 - Acoustics I

ME 725 - Vibrations I

ME 726 - Vibrations II

ME 721 - Acoustics II

f. **Nuclear Engineering**

ME 630 - Corrosion Engineering

ME 655 - Fundamentals of Nuclear Engineering

ME 656 - Radioactive Waste Management

ME 705 - Conduction Heat Transfer

ME 707 - Radiation Heat Transfer

ME 708 - Convective Boiling and Condensation

g. **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 741 - Energy and Variational Methods in Applied Mechanics I

ME 740 - Advanced Dynamics

2. Students pursuing the engineering management option are required to choose the Non-Thesis Option listed below. Students pursuing the engineering management option are required to choose the Non-Thesis Option listed below. Students pursuing options other than the engineering management option may choose, subject to

approval by the student's graduate committee, one of the two options listed below.

Thesis Option: 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. The final examination will include a defense of thesis.

Non-Thesis Option: Requires 33 credits of approved graduate courses. At least 18 credits must be earned from 700-level courses, of which 15 credits must be in engineering.

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. 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.

Mechanical Engineering Ph.D.

Admission Requirements

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. Application must be made to the Department of Mechanical Engineering. Applications must include all documentation as required by the Graduate College. The Department of Mechanical 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 mechanical engineering or a closely allied field. Students with nonengineering 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.

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 the Ph.D.-level study must be submitted. The statement and letters should be sent to the department.
4. Foreign applicants must take and obtain a satisfactory score of a minimum of 550 (213 computerized) on the TOEFL exam as required by 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 postbaccalaureate GPA of 3.20 on a 4.00 scale or equivalent is required for admission.
6. The applicant must obtain satisfactory scores on the Graduate Record Exam (GRE) as determined by the GPC.
7. The UNLV Graduate College must formally admit the applicant.

Degree Requirements

The degree requirements for the Ph.D. in Engineering in the field of Mechanical Engineering include the following:

1. 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 must be from the Department of Mechanical Engineering, the fourth from a relevant supporting field, and a fifth as appointed by the Graduate College.
2. 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.
3. Doctoral students must complete a minimum of 21 credit hours of course work beyond the degree of Master of Science in Engineering (M.S.) or equivalent. A minimum of 18 of these credits must be 700-level courses. The student's Doctoral Advisory Committee may add other requirements in accordance with the individual's background and area of study. All Ph.D. candidates must maintain a minimum overall grade point average (GPA) of 3.20 and a minimum GPA of 3.20 each semester. Ph.D. candidates who do not maintain an overall GPA of 3.20 and a GPA of 3.20 each semester will be placed on probation.
4. In addition to these course requirements, a minimum of 18 credits of Dissertation Research: ME 799 - Dissertation is also required.
5. 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: Dynamics and Control, Fluid Mechanics, Material Science, Solid Mechanics and Mechanical Design, and Thermal Sciences. In addition, all students will be tested in Mathematics. These examinations are on the undergraduate senior level. They 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.

6. The doctoral student must pass a preliminary exam consisting of a written proposal for the dissertation research, followed by an oral defense of the proposal. The Doctoral Advisory Committee must approve the dissertation research proposal. The student is advanced to candidacy for the Ph.D. upon completion of all course work and approval of the dissertation before the Doctoral Advisory Committee.
7. 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.

Course Descriptions

ME 600 - Intermediate Fluid Mechanics
ME 602 - Computational Methods for Engineers
ME 611 - Engineering Thermodynamics II
ME 615 - Design of Thermal Systems
ME 616 - Introduction to Biomechanical Engineering
ME 618 - Air Conditioning Engineering Systems
ME 619 - Advanced HVAC and Energy Conservation Systems
ME 625 - Robotics
ME 626 - Manufacturing Processes
ME 627 - Manufacturing Systems
ME 629 - Computer Control of Machines and Processes
ME 630 - Corrosion Engineering
ME 634 - Noise Control
ME 641 - Advanced Mechanical Engineering Design
ME 642 - Advanced Mechanism Design
ME 643 - Design Techniques in Mechanical Engineering
ME 646 - Composite Materials
ME 650 - Physical Metallurgy
ME 650L - Physical Metallurgy Laboratory
ME 653 - Mechanical Vibrations
ME 655 - Fundamentals of Nuclear Engineering
ME 656 - Radioactive Waste Management
ME 660 - High School Mentoring for Engineering Design
ME 662 - Vehicle Design Projects
ME 670 - Experimental Mechanics of Materials

ME 680 - Gas Dynamics I
ME 682 - Aerodynamics
ME 695 - Special Topics in Engineering

Note: Graduate credit may be obtained for courses designated 600 or above. A full description of the courses listed above may be found in the UNLV Undergraduate Catalog under the corresponding 400 number. Credit at the 600-level normally 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 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. Note: Applications to natural and engineered systems. **Prerequisites:** Graduate Standing or Instructor Consent

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

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, screenwriting, 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 fastgrowing college that can enhance careers and help dreams become realities.

Jeffrey Koep, Dean

(1989), Professor; B.A., Moorhead State University; M.A., Bowling Green State University; Ph.D., Washington State University.

School of Architecture

Director

Baird, David
(2009), Professor; B.S., University of Illinois; B.Arch., University of Arizona; M.S., M.Arch., University of Arizona.

Graduate Coordinator

Alcorn, Michael
(1993), Associate Professor; B.Arch., University of Kentucky; M.Arch., University of Illinois; M.F.A., Art Institute of Chicago.

Graduate Faculty

Al-Douri, Firas
(2007), Assistant Professor; B.S., Baghdad University; M.S., Baghdad University; Ph.D. Texas A&M University.

Fernandez-Gonzalez, Alfredo
(2003), Associate Professor; B.Arch., Universidad La Salle; Specialist, National Autonomous University of Mexico; M.Arch., University of Oregon.

Dorgan, Robert
(2007), Associate Professor; B.A., University of Minnesota; M.Arch., University of Minnesota; Diploma, Architecture Association.

Kemner, Kevin
(2007), Assistant Professor; B.S., The Ohio State University; M.Arch., The Ohio State University.

Lawrence, Attila
(1988), Professor; B.L.A., Philadelphia College of Art; M.A., Pennsylvania State University.

Milburne, Lee-Anne
(2008), Associate Professor; B.F.A., University of Manitoba; M.L.A., University of Guelph; Ph.D., University of Guelph.

Ortega, Daniel
(2000), Associate Professor; B.L.A., University of Nevada, Las Vegas; M.L.A., Rhode Island School of Design.

White, Janet
(1999), Assistant Professor; A.B., Bryn Mawr College; M.Arch., Columbia University; M.A., Ph.D., Cornell University.

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 planning; 4. Environmental, historic, and socio-cultural contexts ranging from the city to the building site; and 5. Tourism and recreation aspects.

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: 2011.

Admission Requirements

Each Master of Architecture program applicant must hold a baccalaureate or graduate degree from a regionally accredited college or university recognized by the University of Nevada, Las Vegas. 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 410 or higher in the verbal section and 430 or higher in the quantitative section. The combined GRE score of these two sections may be no less than 850. International students whose native language is not English must also submit a TOEFL score of 550 (written) or 213 (computerized) or better.

Interested applicants can find detailed information about the Master of Architecture program directly from the School of Architecture's web site.

Because of differing levels of preparation among entering master's degree applicants, different paths for admission have been established according to NAAB accreditation requirements; namely, the 4+2 and the 3+ paths.

1. The 4+2 path is intended for students holding the Bachelor of Science degree with a major in architecture or its equivalent in curriculum content to the UNLV undergraduate program. Qualified applicants holding a five year, NAAB accredited Bachelor of Architecture professional degree may be granted advanced placement.
2. The 3+ path is designed for qualified applicants holding undergraduate or graduate degrees in fields of study other than architecture. If admitted, students are required to complete both undergraduate- and graduatelevel preparatory work as specified by the program faculty before proceeding to the final four semesters of the Master of Architecture program.

Degree Requirements

Required Graduate Courses

Design Studios - Total Credits: 18 or 24

AAE 771L - Architectural Design V
AAE 772L - Architectural Design VI
AAE 789 - Architecture Research Studio
AAE 790 - Professional Project Design
AAE 791 - Thesis Writing

Architectural Research Methods - Total Credits: 3

AAE 770 - Research Methods in Environmental Design
History/Theory/Criticism - Total Credits: 3
AAE 660 - Issues in Contemporary Urbanism

Building Systems - Total Credits: 3

ABS 741 - Integrated Building Systems

Design Management - Total Credits: 3

AAE 756 - Design Practice Management

Concentration Electives - Total Credits: 12 or 18

Selected graduate-level courses as approved by the graduate coordinator (12 credits for students pursuing the Professional Project Option and 18 credits for students pursuing the Written Thesis Option).

Additional Required Courses for 3+ Path

Design Studios - Total Credits: 21

Selected 500-level architecture courses as required by faculty review.

AAE 711L - Graduate Design I: Design and Communication
AAE 712L - Graduate Design II: Fundamentals
AAE 713L - Graduate Design III
AAE 714L - Graduate Design IV
AAD 600 - Clinical Internship (if not previously completed)

Requirements for All Graduate Students

1. After admission, 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.
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. As specified in the Graduate Catalog, the student and the graduate coordinator will develop and file a program of study with the Graduate College. Before filing, the program must receive approval by the School of Architecture Graduate Committee.
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. As a final requirement for the M. Arch. professional degree, each student is required to present his/her Professional Project (Professional Project Option) to the School of Architecture Graduate Committee, or take a final oral examination in which the student will defend his/her master's written thesis (Thesis Option).

Professional Project Option

The student must successfully complete a Professional Project developed as part of the course work of the AAE 789 and AAE 791 Design Studios. 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 AAE 789 and AAE 791 design studio sequence.

Thesis Option

In lieu of the Professional Project, a student may elect, with the approval from the School of Architecture Graduate Committee, to write a research-based Master's thesis. Once a student chooses to do the Thesis Option, he/she will have to select a four-member Thesis Advisory Committee that will be appointed with the approval of the graduate coordinator and the Graduate College. 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 to the AAE 790 course during the last year in the program.

The instructions outlined in the Graduate College Guide to Preparing and Submitting Your Thesis or Dissertation must be followed in the preparation and final submission of the thesis. In addition to the requirements of the Graduate College, a bound copy must be submitted 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.

Course Descriptions

AAE 600 - Clinical Internship

Credits 0

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. **Prerequisites:** AAE 714L or equivalent

AAE 661 - Computer Applications in Architecture I

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 - 18th and 19th Century Architectural History and Theory

Credits 3

This course may also be used for graduate elective credit. For a description of this 500-level course, please consult the current UNLV Undergraduate Catalog where it is listed as a 400-level class. Formerly AAE 655 Note: Credit at the 600-level requires additional work. **Prerequisites:** Graduate standing.

AAE 556 - Twentieth-Century Architecture History and Theory

Credits 3

This course may also be used for graduate elective credit. For a description of this 500-level course, please consult the current UNLV Undergraduate Catalog where it is listed as a 400-level class. Formerly AAE 656 Note: Credit at the 600-level requires additional work. **Prerequisites:** AAE 555

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

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. Note: Credit at the 600-level requires additional work. **Prerequisites:** Graduate standing.

AAE 653 - Visionary and Utopian Architecture: Plato to Bladerunner

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. Note: 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. Same as AAE 454

Prerequisites: Graduate standing.

AAE 657 - Architecture in Las Americas

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. Note: Credit at the 600-level requires additional work. **Prerequisites:** Graduate standing.

AAE 658 - History of Renaissance and Baroque Architecture

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. Note: Credit at the 600-level requires additional work. **Prerequisites:** Graduate standing.

AAE 660 - Issues in Contemporary Urbanism

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 685 - Non-Western Settlements

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 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 I 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. Note: 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. Note:

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. Note: Topics and credits to be announced. May be repeated to a maximum of eight credits.

Prerequisites: Graduate standing and consent of instructor.**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 531/531L 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 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**

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.

ABS 641 - Structures For Architects III

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.

ABS 643 - Interior Lighting Design

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. **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. Note: 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. Note: 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. Note: 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. Note: 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. Note: Topics and credits to be announced. May be repeated to a maximum of six credits. **Prerequisites:** Graduate standing and consent of graduate coordinator.

AAI 650 - Designed Environment and Human Behavior

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.

AAI 655 - Facilities Planning and Design

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. Note: Credit at the 600-level requires additional work. **Prerequisites:** Graduate standing and instructor consent.

AAI 680 - Furniture Design

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. Note: Credit at the 600-level requires additional work. **Prerequisites:** Graduate standing and instructor consent.

AAL 655 - Landscape Interpretation

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.

AAL 656 - Campus Planning and Design

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.

AAL 665 - GIS Planning Methods

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.

AAL 667 - History and Theory of Golf Course Development

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.

AAL 668 - Golf Course Design

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.

AAP 630 - Land Use Management

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.

AAP 646 - Urban Land Use: Planning and Controls

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

Chair

Burns, Mark

(1992), Professor; B.F.A., School of Dayton Art Institute;
M.F.A., University of Washington.

Graduate Coordinator

Warner, Mary

(1991), Associate Professor; B.A., M.A., California State
University, Sacramento.

Graduate Faculty

Angel, Catherine

(1991), Professor; B.F.A., University of Oklahoma;
M.F.A., Indiana University.

Burden, Jeffrey K.

(2007), Professor; B.F.A., University of Evansville;
M.F.A., University of Indiana.

Hendee, Stephen,

(2004) Assistant Professor, B.F.A. San Francisco Art
Institute, M.F.A. Stanford University.

Holder, Thomas J.

(1971), Professor; B.A., San Diego State University;
M.F.A., University of Washington.

Kelly, Cathie C.

(1980), Associate Professor; A.B., Sweet Briar College;
Ph.D., Pennsylvania State University.

Kennerk, Emily

(2008), Assistant Professor; B.F.A., Herron School of Art;
M.F.A., Cranbrook Academy of Art.

McDonald, Aya Louisa

(2000), Associate Professor; B.A., M.A., Ph.D., Stanford
University.

Rafat, Pasha

(1986), Professor, B.S. Arizona State University, M.A.,
M.F.A. California State University, Fullerton.

Seo, Sang-Duck

(2006), Assistant Professor, BFA Taegu University,
Korea, MFA Iowa State University.

Swenson, Kristen J.

(2007), Assistant Professor; B.A., The Evergreen State
College; Ph.D., State University of New York.

Tracy, Robert H.

(1984), Associate Professor; B.A., California State
University, Hayward; M.A., Ph.D., University of
California, Los Angeles.

Watkins, Helga

(1999) Associate Professor; B.F.A., Savannah College of
Art and Design; M.F.A., University of Notre Dame.

Professors Emeriti

Abbey, Rita Deanin

(1967-1987), Emeritus Professor; B.F.A., M.A.,
University of New Mexico.

Leaf, Bill S.

(1973), Professor; B.F.A., San Francisco Art Institute;
M.A., University of California, Davis.

McCollum, Michael L.

(1969-1995), Emeritus Dean of Fine and Performing Arts;
A.B., Humboldt State University; M.A., M.F.A.,
University of California, Berkeley.

Pink, James

(1987) Professor; B.S., M.A., Northern Illinois
University; M.F.A., University of Florida.

Students interested in pursuing the visual arts Master of Fine Arts are encouraged to review the graduate curriculum found in this catalog and reflect on the thoughts, feelings and perceptions offered by a diverse UNLV Department of Art faculty, who serve as a rich and vital resource for the contemporary art scene. The department's graduate curriculum offers various tracks of emphasis, which are indicative of the general declarations, visions, or centers of tendencies for the dissemination of modernist aesthetic and artistic precepts. Although fundamentally aimed at an enrichment of life and mind through advanced study in studio art, the M.F.A. course of study is also designed to provide training and experience for those students interested in careers as professional artists.

The graduate program, a three-year curriculum consisting of 60 credit hours of instruction, may be taken leading to the Master of Fine Arts degree in any one of the following seven areas: ceramics, drawing, painting, photography, printmaking, sculpture, or graphic design. The National Association of Schools of Art and Design has fully accredited the graduate program. A number of graduate assistantships and private studio spaces are available to assist and support students in their pursuit of the M.F.A.

Admission Requirements

A student working toward the M.F.A. in 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.

Degree Requirements

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).

Students with a Master of Arts degree must complete a minimum of 45 credits beyond the M.A. in the M.F.A. program. The student's committee and the graduate coordinator will determine the exact number of credits to be taken.

After completing approximately three semesters, or thirty credit hours, in the M.F.A. program, the candidate's work must be submitted to a committee for re-evaluation. The committee, selected by the major professor and the student, determines if the student's progress meets the standards required for advancement to candidacy. The student's committee determines the requirements for the degree with the following exceptions:

1. Six hours of ART 721 - Graduate Faculty Studio, Graduate Faculty Studio (taken in the first and second semester of entering the program).
2. Graduate students are required, unless exempted by their committee, to take nine hours of art history classes, art history seminars, theory classes or directed reading.
3. Six hours of ART 720 - Graduate Projects, Seminar in Studio Practices (starting with the Fall semester in which the student enters the program).
4. Four hours of ART 777 - Graduate Exhibition (last semester).
5. The remaining thirty-eight hours needed for graduation will be determined by advisement of the candidate's committee.

Thesis Exhibition

The thesis is an exhibition of the student's work done specifically to meet this requirement. The thesis exhibition 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.

Final Examination

The final examination is oral and covers the intent and underlying conception of the student's comprehensive project. This examination is prepared and conducted by the student's graduate committee. 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.

Course Descriptions

ART 604 - Art in Public Places
ART 662 - The History of Medieval Art
ART 663 - History of Early Renaissance Art
ART 664 - High Renaissance and Mannerist Art
ART 665 - History of Northern Renaissance Art
ART 666 - History of Renaissance and Baroque Architecture
ART 667 - History of Baroque Art I
ART 668 - History of Baroque Art II
ART 669 - Art of Eighteenth Century Europe I
ART 670 - Art of Eighteenth Century Europe II
ART 672 - Nineteenth Century Art
ART 673 - Twentieth Century Art
ART 674 - History of American Art
ART 677 - Art Since 1945
ART 680 - The Art of China
ART 681 - Art of Japan
ART 695 - Special Topics in Art History

Note: Graduate credit may be obtained for 600 level courses. A full description of the courses listed above may be found in the Undergraduate Catalog under the corresponding 400 number.

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. Note: 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. Note: 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. Note: May be repeated with change of subject, maximum of 30 credits. **Prerequisites:** Graduate standing in art.

ART 721 - Graduate Faculty Studio

Credits 3

Individual problems in the studio area with regularly scheduled discussion sessions involving all department faculty. Note: 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. Note: 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. Note: 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. Note: May be repeated for a maximum of nine credits.

Prerequisites: Graduate standing.

ART 777 - Graduate Exhibition

Credits 4

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

Chair

Menendez, Francisco

(1990), Professor; B.A., University of Puget Sound;
M.F.A., California Institute of the Arts.

Graduate Coordinator

Clark, Sean

(1999), Associate Professor; B.S., University of Missouri;
M.F.A., University of Iowa.

Graduate Faculty

Wegner, Hart L.

(1968), Professor; B.A., M.A., University of Utah; Ph.D.,
Harvard University.

The UNLV Department of Film offers a Master of Fine Arts degree in Screenwriting. This terminal film degree focuses specifically on the art and craft of writing for screen. 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.

Admission Requirements

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. Be interviewed, by telephone or in person, by the Graduate Coordinator.

Review of applications begins January 15.

Degree Requirements

Candidates for the Master of Fine Arts in Screenwriting take a minimum of 54 credits. The candidate is required to take a minimum 36 credit hours from the following list:

FIS 722 - Graduate Screenwriting
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
FIS 618 - Writing for Television I

Electives

Elective classes will include additional graduate-level film courses as well as graduate-level dramatic literature or creative writing courses taught in other departments such as English, theatre or foreign languages.

Creative Project Requirement

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.

Final Examination

A two-hour oral examination will take place at the end of the course of study. This examination focuses on the student's work as a screenwriter (1 hour) and on films selected from the viewing list (1 hour). The viewing list, presented to the student during the course of study, contains motion pictures chosen by merit of their screenplays and the student must be analytically conversant about those movies

Course Descriptions

Note: Course work listed is normally open only to matriculating advanced degree students in the Department of Film. Other students who may qualify under Graduate College or university regulations must receive prior consent to register from the Graduate Coordinator.

FIS 615 - Story Development

FIS 618 - Writing for Television I

FIS 619 - Writing for Television II

Note: Graduate credit may be obtained for the courses listed above. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number. Credit at the 600-level normally required additional work.

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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: May be repeated for a maximum of six credits. **Prerequisites:** Consent of instructor.

Music

Chair

Good, Jonathan
(2006), Professor; B.S., Mansfield University; M.M.,
Ohio University Athens

Graduate Coordinator

McKay, Janis
(1995), Associate Professor; B.M., University of Georgia;
M.M., University of Louisville; D.M.A., Ohio State
University.

Graduate Faculty

Anderson, Alfonse
(1997), Professor; B.A., M.M., Texas Southern
University; D.M.A., University of Arizona.

Baley, Virko
(1970), Professor; B.M., M.M., Los Angeles
Conservatory of Music and Arts.

Barone, Anthony
(2006), Assistant Professor; B.A., Cornell University;
M.A., Eastman School of Music; Ph.D., Columbia
University.

Bernatis, Bill
(1998), Associate Professor; B.M., Washburn University
of Topeka; M.M., Indiana University Bloomington.

Burkett, Eugenie
(2005), Associate Professor; B.M.E., BALOY; M.A.,
Manhattan School of Music; Ph.D., University of
Wisconsin-Madison.

Caplan, Stephen
(1989), Professor; B.M., Northwestern University; M.M.,
D.M.A., University of Michigan.

Fitzpatrick, Tod
(2003), Associate Professor; B.M., Chapman University;
M.M., University of Southern California; D.M.A.,
University of Southern California.

Grim, Jennifer
(2007), Assistant Professor; B.A., Stanford University;
M.M., M.M.A., D.M.A., Yale University.

Gronemeier, Dean
(1989), Professor and Associate Dean; B.A., Northern
Illinois University; M.M., D.M.A., University of Arizona;
J.D., University of Nevada, Las Vegas.

Grossman, Jorge
(2004), Assistant Professor; B.M. Faculdade Santa
Marcelina; M.M., Florida International University;
D.M.A., Boston University.

Hanlon, Kenneth M.
(1970), Professor; B.M., M.M., D.M.A., Peabody
Conservatory of Music of Johns Hopkins University.

Krysa, Taras
(2007), Assistant Professor; B.M., Manhattan School of
Music; M.M., Indiana University; M.M., Northwestern
University.

LaBounty, Anthony
(1988), Associate Professor; B.M. University of Arizona;
M.S., University of Illinois Urbana.

Le, Wei-Wei
(2007), Assistant Professor; B.M. Oberlin Conservatory
of Music; M.M. Cleveland Institute of Music.

Leslie, Thomas
(1985), Professor; B.M.E., University of Iowa; M.S.,
Indiana State University.

Loeb, David
(2002), Associate Professor; B.S., West Chester
University; M.M., The University of Rochester, Eastman
School of Music.

Mueller, Susan
(2002), Assistant Professor; B.M., The University of
Kansas; M.M., Lesley College.

Smith, Andrew
(1995), Associate Professor; B.M., Hartt College of
Music; M.M., Mannes College of Music; D.M.A.,
University of California, Santa Barbara.

Sturm, Marina
(2004), Assistant 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.

Suk, Mykola
(2001), Associate Professor; B.M./M.M., D.M.A.,
Moscow State Conservatory of Music.

Suzuki, Takayoshi
(1995), Instructor; B.M., Tokyo Conservatoire Shobi.

Taranto, Cheryl
(1996), Head Music Librarian; B.M., M.M., M.L.S.,
Ph.D., Louisiana State University.

Warrington, Tom
(1999), Associate Professor; B.M., University of Illinois
Urbana Campus; M.M. Bowling Green State University;

Weiller, David
(1984), Assistant Professor; B.A., Occidental College;
M.M., University of Illinois Urbana.

Professors Emeriti

Emerson, Isabelle
(1979-2006), Emeritus Professor; A.B. Barnard College;
S.M.M. Union Theological Seminary; M. PHIL.
Columbia University; Ph.D. Columbia University.

Kimball, Carol A.
(1972-2008), Emeritus Professor; B. S. New York
University; M. A. Arizona State University; D.M.A.
Arizona State University.

Peterson, Douglas
(1967-2000), Emeritus Professor; B.A. Grinnell College;
B.M.E., Florida State University; M.A. University of
Iowa; D.M.A., University of Iowa.

The UNLV Department of Music provides a professional artistic environment that supports programs of excellence in the development of musicians. The Department 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.

The Application Process

All UNLV graduate student applicants must be accepted into the UNLV Graduate College before they can be admitted into the Department of Music. Department of Music graduate student applicants should begin the application and admission process by visiting the Graduate College website and completing an on-line application.

Music M.M.

Admission Requirements

Students applying for admission to the Master of Music degree program must make application 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. 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.

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. (i.e.: flute performance, jazz composition, etc.). The following credentials must be presented to the Department of Music:

Master of Music-Performance

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. An on-campus performance audition.

Master of Music-Composition/Theory

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.

Master of Music-Music Education

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 on the applicant's philosophy of music education.
3. An undergraduate degree in Music Education or the equivalent is required for admission to the program.

Master of Music-Conducting

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. Audition Requirements
6. 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.

Degree Requirements

Throughout work for the degree, the student must maintain a minimum GPA of 3.00, with no more than two grades of C (2.00), and no grade lower than B (3.00) in the major area of concentration. Performance majors must earn at least a B (3.00) in pedagogy and literature and in ensembles as well as lessons. A thesis is optional and may, with approval, be used in lieu of six credits in the student's program. Participation in large ensembles is required throughout the student's residency.

M. M. Comprehensive Exams

All candidates for the Master of Music degree in Applied Music, Composition/Theory, and Conducting are required to take written and oral comprehensive examinations. 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.

The Master of Music comprehensive examinations consist of a bibliography research project, a written examination, and an oral examination. The student's graduate recital, if required, should take place before the comprehensive exams. The comprehensive exams are taken during the term in which the student intends to graduate. For more specific information, please consult your advisor or the Department of Music Graduate Handbook.

The minimum number of credits required for the Master of Music degree varies with each major option. No more than eight hours of 500-level course work may be applied to the candidate's degree program. The individual requirements for each of the option areas are as follows:

Applied Music - Performance

| | |
|--|---|
| A. Applied Major Option - Total Credits: 30 | |
| Bibliography | 3 |
| Music History | 6 |
| Music Theory | 3 |
| Applied Music | 8 |
| Recital | 2 |
| Pedagogy and Literature | 3 |
| Ensemble | 2 |
| Electives (with approval) | 3 |
| B. Collaborative Piano Option - Total Credits: 30 | |
| Bibliography | 3 |
| Music History | 6 |
| Music Theory | 3 |
| Applied Music includes two recitals, one with vocalists, one with instrumentalists | 8 |
| Pedagogy and Literature (vocal or instrumental) | 3 |
| Ensembles | 2 |
| Accompanying (MUSE 572) | 2 |
| Electives (with approval) | 3 |
| C. Multiple Woodwind Option - Total Credits: 38 | |
| Major Instrument | 8 |
| **Secondary Instruments (4 credits each) | 8 |
| Bibliography | 3 |
| Music History | 3 |
| Music Theory | 3 |
| Recital Credit: | 2 |
| Pedagogy and Literature | 6 |
| *Ensemble | 2 |
| Electives (with approval) | 3 |
| D. Jazz Performance Option - Total Credits: 30 | |
| Applied Lessons | 8 |
| Recital | 2 |
| Ensembles (1 large, 1 small) | 2 |
| Bibliography | 3 |
| Jazz History | 3 |
| Jazz Theory | 3 |

Music History Elective 3

Notes:

* Participation in one major ensemble and one chamber ensemble.

** 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 shall be taken on another woodwind instrument or as an elective.

Composition/Theory

| | |
|---|---|
| A. Composition/Theory Option - Total Credits: 32 | |
| Bibliography | 3 |
| Music History | 6 |
| Music Theory | 6 |
| Applied Music | 4 |
| Composition (private instruction) | 8 |
| Recital | 2 |
| Elective (with approval) | 3 |
| B. Jazz Composition/Theory Option - Total Credits: 32 | |
| Applied Lessons | 4 |
| Composition | 8 |
| Recital | 2 |
| Bibliography | 3 |
| Jazz History | 3 |
| Jazz Keyboard | 3 |
| Jazz Pedagogy | 3 |
| Jazz Theory | 3 |
| Music History Elective | 3 |

Music Education

| | |
|---|---|
| A. Music Education Option - Total Credits: 33 | |
| Bibliography | 3 |
| Music History | 6 |
| Music Theory | 3 |
| Music Education: | |
| MUS 640, MUS 641, MUS 671 | 9 |
| Music Education elective | 3 |
| Electives (with approval to include Applied Music or Conducting) | 9 |

Note: The maximum number of workshop credits is three.

| | |
|---|---|
| B. Orff Schulwerk Option - Total Credits: 33 | |
| Bibliography | 3 |
| Music History | 6 |
| Music Theory | 3 |
| Music Education: | |
| MUS 640, MUS 671 | 6 |
| Orff Levels I-III: | |
| MUS 642, MUS 643, MUS 644 | 9 |
| Electives (with approval to include Applied Music or Conducting) | 9 |

Conducting

A. Choral Option - Total Credits: 35

| | |
|--|---|
| Bibliography | 3 |
| Music History | 6 |
| Music Theory | 3 |
| MUS 721C | 3 |
| Electives (with approval) | 3 |
| Applied: | 8 |
| MUSA 766 - Private Graduate Conducting | |
| MUSA 766 - Private Graduate Conducting | |
| MUS 723 - Advanced Choral Conducting | 3 |
| Recital | 2 |
| Ensembles | 2 |

B. Orchestral Option - Total Credit Hours: 35

| | |
|---|---|
| Bibliography | 3 |
| Music History | 6 |
| Music Theory | 3 |
| MUS 721A | 3 |
| Electives (with approval) | 3 |
| Applied: | 8 |
| MUSA 766 - Private Graduate Conducting (B or C) | |
| MUS 723 - Advanced Choral Conducting | 3 |
| Recital | 2 |
| Ensembles: MUSE 521, MUSE 522 | 2 |

C. Wind Band Option - Total Credits: 35

| | |
|-------------------------------|---|
| Bibliography | 3 |
| Music History | 6 |
| Music Theory | 3 |
| MUS 721B | 3 |
| Electives (with approval) | 3 |
| Applied: MUSA 766 B, MUSA 766 | 8 |
| MUSA 766 | 2 |
| Recital | 2 |
| Ensembles: | |
| MUSE 513 - Wind Orchestra | 2 |

Musical Arts D.M.A.

Admission Requirements

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.

Degree Requirements

At least 60 semester credits of approved course work beyond the master's level and completed as follows:

Applied Music Performance

| | |
|---|-----------|
| Brass, Piano, String, and Woodwind Areas | 60 |
| MUS 773 - Research Seminar | 3 |
| History/Literature | |
| (Piano must include MUS 726E) | 9 |
| Music Theory (must include MUS 774) | 6 |
| MUS 719 - Teaching Music in Higher Education | 1 |
| Pedagogy: MUS 747 or 748 | 3 |
| Applied Lessons | 16 |
| Ensembles (2 large, 1 chamber) | 3 |
| Recitals (3) | 9 |
| Lecture-recital | 3 |
| Document | 2 |
| Electives | 5 |

Conducting (Wind Band) Area

| | |
|--|----|
| MUS 773 - Research Seminar | 3 |
| History/Literature (must include MUS 727G) | 9 |
| Music Theory (must include MUS 774, 708) | 6 |
| MUS 719 - Teaching Music in Higher Education | 1 |
| Pedagogy: MUS 720B, MUS 747B | 6 |
| Applied Lessons | 16 |
| Ensembles | 2 |
| Recitals (3) | 9 |
| Lecture-recital | 3 |
| Document | 2 |
| Electives | 3 |

Conducting (Orchestra) Area

| | |
|--|----|
| MUS 773 - Research Seminar | 3 |
| History/Literature (must include MUS 727H) | 9 |
| Music Theory: MUS 774, MUS 708 | 6 |
| MUS 719 - Teaching Music in Higher Education | 1 |
| Pedagogy: MUS 726 | 6 |
| Applied Lessons | 16 |
| Ensembles | 2 |
| Recitals (3) | 9 |
| Lecture-recital | 3 |
| Document | 2 |
| Electives | 3 |

Percussion Area

| | |
|--|---|
| MUS 773 - Research Seminar | 3 |
| History/Literature | 9 |
| Music Theory: (must include MUS 774) | 6 |
| MUS 719 - Teaching Music in Higher Education | 1 |

| | |
|--|----|
| Pedagogy: MUS 726D, MUS 727D, MUS 728D | 9 |
| Applied Lessons | 16 |
| MUS 777 - Seminars in Percussion | 0 |
| Ensembles | 2 |
| Recitals (3) | 9 |
| Lecture-recital | 3 |
| Document | 2 |

Voice Area 60

| | |
|--|----|
| MUS 773 - Research Seminar | 3 |
| History/Literature | 9 |
| Music Theory: (must include MUS 774) | 6 |
| MUS 719 - Teaching Music in Higher Education | 1 |
| Pedagogy: MUS 746 | 6 |
| Applied Lessons | 16 |
| Ensembles | 2 |
| Recitals (3) | 9 |
| Lecture-recital | 3 |
| Document | 2 |
| Electives | 3 |

D.M.A. Foreign Language Requirement

Reading knowledge of one of these three foreign language is required for the DMA: French, German, or Italian. With permission of the Department of Music Graduate Committee, another language may be substituted. This requirement must be fulfilled before the student schedules their qualifying exams. Students whose native language is not English may not use English or their native language to fulfill this requirement.

Students may fulfill the language requirement by doing one of the following:

1. Pass the Foreign Language Proficiency Exam in one of the approved languages within the first year of doctoral study. If the student does not succeed in passing the Foreign Language Proficiency Exam within the first year of doctoral study, they must fulfill the foreign language requirement by completing option
2. 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.

Grade Point Average Requirements

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.

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.

M.M and D.M.A. Requirements

Placement Exams

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.

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 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).

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:

- a. Two-voice dictation
- b. Three-voice dictation
- c. Harmonic dictation

- d. Two-part rhythmic dictation
- e. 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 Dr. Kenneth Hanlon (702) 895-4809 (kenneth.hanlon@unlv.edu).

Advising

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.

Ensemble Enrollment

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.

Course Descriptions

MUS 501 - Counterpoint

MUS 529 - Interpretation: German Lied

MUS 530 - French Melodie

MUS 590 - Music Internship

Note: 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. Credit at the 500 level normally requires additional work.

MUS 580 - Body Mapping: What Every Performer Needs to Know About the Body

Credits 1

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.

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.

Note: Not credited toward graduate program of study.

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. Note: Not credited toward graduate program of study.

MUS 604 - Graduate Theory Review

Credits 3

A review of common-practice harmony, counterpoint, and form. Note: 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. **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 off 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 665 - Private Theory and Composition

Credits 2

Offerings for individual instruction include: a) Composition and Seminar. b) Orchestration. c) Jazz Arranging and Composition. f) Form and Analysis. g) Counterpoint. j) Harmony. Formerly MUS 765 Note: May be repeated for credit. **Prerequisites:** Consent of instructor.

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 698 - Recital-Master's Level

Credits 2

Presentation of a full recital. Formerly MUS 798A Note: 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:** Graduate standing in music; MUS 690.

MUS 706 - Twentieth-Century Techniques

Credits 3

Analytical and written studies covering compositional practices from Impressionism to the present day.

MUS 707 - Analysis in Relation to Performance

Credits 3

A study of Schenkerian analysis and its application to the problems of performance.

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:** MUS 304, 407

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. Note: 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 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.

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. Note: May be repeated to a maximum of six credits for master's candidates and nine credits for doctoral candidates.

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: Master's degree in music; MUS 690 or equivalent.

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:**

Master's degree in music and consent of instructor.

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 3-9

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:** Graduate standing and MUS 690; or MUS 320, 321 and consent of instructor.

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:** Graduate standing and MUS 690; or MUS 320, 321 and consent of instructor.

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:** Graduate standing in music, MUS 690.

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:** Graduate standing in music, MUS 690.

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:** Graduate standing in music, MUS 690.

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:** Graduate standing in music, MUS 690.

MUS 789 - The Art Song

Credits 3

Study of solo song from its beginning to the present day. **Prerequisites:** Graduate standing in music, MUS 690.

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:** Graduate standing in music; MUS 690.

MUS 793 - Medieval and Renaissance Music

Credits 3

Study of the evolution of European music from antiquity through the end of the sixteenth century.

MUS 794 - Music of the Baroque Period

Credits 3

Examination of the styles and forms of the seventeenth and early eighteenth centuries.

MUS 795 - Classical and Early Nineteenth-Century Music

Credits 3

Examination of the styles and forms of the period 1750 to 1825.

MUS 796 - Music of the Romantic Period

Credits 3

Examination of the styles and forms from 1815 through the early twentieth century.

MUS 797 - Music of the Twentieth Century

Credits 3

Examination of the styles and forms from Impressionism to the present day.

MUS 798 - Recital

Credits 3

Presentation of a full recital at the doctoral level. Note: 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. Note: 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.

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. **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. **Prerequisites:** Successful audition and permission of instructor.

MUSA 667 - Applied Music for Master's Students, Non-Performance Majors

Credits 2

Individual instruction on instruments. Audition and jury examination required. For students in music education or theory and composition curricula. 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. **Prerequisites:** Successful audition and permission of instructor.

MUSA 667Q - Applied Music for Master's Students, Non-Performance Majors

Credits 1-2

Individual instruction on voice. Audition and jury examination required. For students in music education, theory and composition, or Master of Fine Arts curricula. Note: One credit available for M.F.A. acting candidates only. **Prerequisites:** Successful audition and permission of instructor.

MUSA 760 - Secondary Applied Music for Doctoral 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. **Prerequisites:** Permission of instructor.

MUSA 764 - Applied Music for Doctoral Students

Credits 2-4

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. p) Violin. q) Voice. r) Guitar. s) Percussion. t) Organ. u) Harp. **Prerequisites:** Successful audition and permission of instructor.

MUSA 767 - Applied Music for Doctoral Students, Non-Performance Majors

Credits 2

Individual instruction on instruments. 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. p) Violin. q) Voice. r) Guitar. s) Percussion. t) Organ. u) Harp. Note: May be repeated to a maximum of 12 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 Note: Credit at the 500 level normally requires additional work.

MUSE 504 - Opera Workshop

Credits 1

Laboratory course devoted to the performance of operatic excerpts and short operas. Formerly MUSE 604 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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. Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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. Note: Credit at the 500 level normally 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

Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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. Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally requires additional work.

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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally requires additional work.

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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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. Note: 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally requires additional work. **Prerequisites:** Intermediate piano skills or consent of instructor.

MUSE 580 - Opera Production

Credits 1

Involvement as a performer or production assistant in an opera/opera production. Formerly MUSE 680 Note: Credit at the 500 level normally requires additional work. **Prerequisites:** Successful audition.

MUSE 590 - Special Ensemble

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 690 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally requires additional work. **Prerequisites:** Audition and instructor consent required.

MUSE 593 - Special Vocal Ensemble

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 693 Note: Credit at the 500 level

normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally 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. Note: Credit at the 500 level normally requires additional work. **Prerequisites:** Consent of instructor.

MUSE 636 - Jazz Funk 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. Note: Credit at the 600 level normally requires additional work.

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. Note: Credit at the 600 level normally requires additional work.

Theatre

Chair

Brackley Frayer

(1995), Associate Professor; B.A., New England College; M.F.A., Yale School of Drama.

Graduate Coordinator

Brewer, Robert

(1989), Professor; B.F.A., University of Illinois; M.F.A., Pennsylvania State University.

Graduate Faculty

Aldridge, Joe

(1989) Associate Professor; B.A., Texas Tech University; M.A., University of Nevada, Las Vegas.

Benedetti, Robert L.

(2005); Associate Professor; B.Sc., M.A., Ph.D., Northwestern University.

Bynum, Joe Nathan

(1999), Professor; B.S., Bowie State College; M.F.A., Southern Illinois University.

Casale, Glenn

(2003), Associate Professor, B.A., Marist College; M.A., University of Nevada, Las Vegas.

Cornell, Rayme

(2007), B.A., University of Nevada, Las Vegas; M.F.A., University of Missouri, Kansas City .

Gilyard, Clarence

(2006) Associate Professor; B.A., California State University, Dominguez Hills; M.F.A., Southern Methodist University

Hansen, Scott

(2006) Assistant Professor; B.A., University of Northern Iowa; M.F.A., Yale School of Drama.

Hubbard, Philip J.

(1999), Associate Professor; B.A., University of California, Riverside; M.F.A., Southern Methodist University.

Koep, Jeffrey

(1989), Professor and Dean, College of Fine Arts; B.A., Moorhead State University; M.A., Bowling Green State University; Ph.D., Washington State University.

Lugering, Michael

(1991), Associate Professor; B.S., Florida State University; M.F.A., University of Utah.

McDonough, Ann

(1990), Professor; B.A., College of St. Catherine; M.A., Ph.D., University of Minnesota.

Ryerson, Judith A,

(2005), Associate Professor; B.F.A., West Virginia University, M.F.A., University of Utah.

Sumpter, Shannon

(1999), Associate Professor; B.F.A., Adelphi University; M.F.A., Yale School of Drama.

Tylo, Michael
(2006), Professor; B.F.A., M.F.A., Wayne State
University.

Professors Emeriti

Burgan, Robert N.
(1972), Emeritus Professor; B.A., University of Nevada,
Las Vegas, M.F.A., Ohio University.
Crawford, Jerry L.
(1962-1994), Emeritus Professor; B.F.A., Drake
University; M.A., Stanford University; Ph.D., University
of Iowa.
Harris, Paul C.
(1959-1989), Emeritus Professor; B.A., University of
Colorado; M.A., Ph.D., Stanford University.

Theatre M.A.

Admission 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, applicants must submit the following to the Department of Theatre:

1. An official transcript 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. Two letters of recommendation sent by former instructors, employers, or other professionals who can evaluate the applicant's potential to complete graduate study. These materials may be sent to the following address:

Department of Theatre
Attn: Graduate Coordinator
University of Nevada, Las Vegas
4505 S. Maryland Parkway
Box 455036
Las Vegas, NV 89154-5036

Note: A writing sample and/or a personal interview may also be requested by the department's Graduate Coordinator.

Required Reading for M.A. candidates

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.

Thesis

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.

Examinations

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.

Program of Study - Total Credits: 31

A minimum of 31 semester hours of credit in a program approved by the student's advisor and examination committee. The 31 credits might include:

| | |
|--|---------------------|
| THTR 681 - Theatre History I | 3 credits required |
| THTR 682 - Theatre History II | 3 credits required |
| THTR 701 - Research in Theatre and Drama | |
| THTR 702 - Graduate Seminar | 4 credits required |
| THTR 798 – Thesis | 6 credits required |
| Electives | 12 credits required |

Note: THTR 798 should be taken over the course of at least two semesters with a minimum of two credits hours in the student's final semester of study.

Theatre M.F.A.

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

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.

Admission Requirements

In addition to the general requirements for admission to the Graduate College, applicants must submit to the Department of Theatre:

1. An official transcript 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. These materials, in addition to those required by the individual concentrations, may be sent to the following address:

Department of Theatre
Attn: Graduate Coordinator
University of Nevada, Las Vegas
4505 S. Maryland Parkway
Box 455036
Las Vegas, NV 89154-5036

Required Reading

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.

Advancement to Candidacy

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 four graduate faculty, three to be selected from the Department of Theatre and one representative from another department or college.

Termination of Candidacy

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.

Final Examination

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.

Design/Technology

Additional admission requirement

In addition to general materials requested by the Department of Theatre, please submit a portfolio of representative work.

Program of Study - Total Credits: 72

A minimum of 72 semester hours in a program approved by the student's advisor and examination committee. A representative degree program might include:

THTR 701 - Research in Theatre and Drama
THTR 702 - Graduate Seminar
THTR 703 - Collaborative Process
THTR 749 - CAD for the Theatre
ART 710 - Graduate Studio
THTR 797 - Creative Project

Directing

Additional admission requirements

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.

Program of Study - Total Credits: 72

A minimum of 72 semester hours in a program approved by the student's advisor and examination committee. A representative degree program might include:

THTR 702 - Graduate Seminar
THTR 703 - Collaborative Process
THTR 707 - Form, Style and Structure
THTR 719 - Dramaturgy
THTR 725 - Directing Studio
THTR 727 - Scene Design Studio I
THTR 736 - Stage Management Studio I
THTR 741 - Costume Design Studio I
THTR 745 - Lighting Design Studio I
THTR 771 - Acting Studio
THTR 773 - Scene Study
THTR 797 - Creative Project

Performance

Additional admission requirements

In addition to general materials requested by the Department of Theatre (see above), students must audition either in person or through submission of a VHS tape (audition tapes 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.

Program of Study - Total Credits: 72

A minimum of 72 semester hours in a program approved by the student's advisor and examination committee. In addition to required course work, graduate students in performance must audition for all productions affiliated with the Nevada Conservatory Theatre and the University Theatre Season. The degree program might include:

THTR 702 - Graduate Seminar
THTR 763 - Audition Technique
THTR 764 - Dialects for the Stage
THTR 771 - Acting Studio
THTR 773 - Scene Study
THTR 775 - Sound and Movement Studio
THTR 777 - Movement for the Actor
THTR 779 - Speech for the Actor
THTR 781 - Dance for the Actor

Playwriting

Additional admission requirement

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.

Program of Study - Total Credits: 72

A minimum of 72 semester hours in a program approved by the student's advisor and examination committee. A representative degree program might include:

THTR 701 - Research in Theatre and Drama
THTR 702 - Graduate Seminar
THTR 707 - Form, Style and Structure
THTR 711 - Playwrights Master Class
THTR 713 - Playwriting:
THTR 714 - Playwriting:
THTR 716 - Playwrights Laboratory
THTR 717 - Playwrights Tutorial
THTR 719 - Dramaturgy
THTR 720 - Playwrights Workshop
THTR 726 - Problems in Direction
THTR 796 - Internship
THTR 797 - Creative Project

Stage Management

Additional admission requirement

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.

Program of Study - Total Credits: 72

A minimum of 72 semester hours in a program approved by the student's advisor and examination committee. A representative degree program might include:

THTR 621A - Entertainment & Fine Art Law I
THTR 621B - Entertainment & Fine Art Law II
THTR 702 - Graduate Seminar
THTR 725 - Directing Studio
THTR 727 - Scene Design Studio I
THTR 732 - Technical Direction Studio I
THTR 736 - Stage Management Studio I
THTR 737 - Stage Management Studio II
THTR 739 - Theatre Management
THTR 740 - Production Management
THTR 741 - Costume Design Studio I
THTR 745 - Lighting Design Studio I
THTR 749 - CAD for the Theatre
EDA 745 - Human Dynamics and Organizational
THTR 797 - Creative Project

Course Descriptions

THTR 621A - Entertainment & Fine Art Law I
THTR 621B - Entertainment & Fine Art Law II
THTR 654 - Directing I
THTR 661 - Play Structure and Analysis
THTR 675 - Musical Theatre Literature
THTR 681 - Theatre History I
THTR 682 - Theatre History II

Note: Graduate credit may be obtained for courses designated for the 600-level courses listed or above. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number. Note: Credit at the 600 level normally 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 2

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. Note: May be repeated to a maximum of twelve 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.

Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: May be repeated to a maximum of 16 credits.

Prerequisites: Graduate standing, THTR 736.

THTR 739 - 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. **Prerequisites:** Graduate standing.

THTR 740 - 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. **Prerequisites:** Graduate standing.

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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: Instructor approval.

THTR 764 - Dialects for the Stage

Credits 2

Study and practice of dialects and accents for the stage.

Prerequisites: Consent of instructor.**THTR 771 - Acting Studio**

Credits 2

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. Note: May be repeated to a maximum of twelve credits. **Prerequisites:** Consent of instructor.

THTR 773 - Scene Study

Credits 2

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. Note: May be repeated to a maximum of twelve credits. **Prerequisites:** Graduate status, consent of instructor.

THTR 775 - Sound and Movement Studio

Credits 2

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. Note: May be repeated to a maximum of twelve credits. **Prerequisites:** Instructor approval.

THTR 777 - Movement for the Actor

Credits 1

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. Note: 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. Note: May be repeated to a maximum of six credits.

THTR 779 - Speech for the Actor

Credits 1

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. Note: May be repeated to a maximum of six 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. Note: May be repeated to a maximum of six credits.

THTR 795 - Supervised Individual Study

Credits 1 – 4

Designed only for those students whose degree program requires a project in lieu of thesis and to be used only in connection with that project. Note: 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.

THTR 796 - Internship

Credits 1 – 12

Internship at regional centers of theatre activity. Note: May be repeated to a maximum of 12 credits. **Prerequisites:** Subject to M.F.A. program requirements.

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, Public Health and Allied Health. 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 our citizens. Taken together, UNLV is helping build a foundation for a healthier and more vibrant Nevada.

Division of Health Sciences Departments and Schools

School of Allied Health Sciences

Health Physics & Diagnostic Sciences
Kinesiology and Nutrition Sciences
Physical Therapy

School of Community Health Sciences

Environmental and Occupation Health
Health Care Administration and Policy
Health Promotion

School of Dental Medicine

School of Nursing

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.

Health Physics & Diagnostic Sciences

The Department of Health Physics emphasizes the environmental aspects of radioactivity, safety, environmental issues associated with radioactive waste disposal, and the use of photodynamic therapy to treat cancer. Graduate Degree in Health Physics.

Kinesiology & Nutrition Sciences

Provides a program of study in the science of human movement for students interested in the allied health professions. The Department is committed to an interdisciplinary approach to professional preparation and scholarship. Graduate degrees in Kinesiology and Exercise Physiology.

Physical Therapy

Physical therapy is considered a specialty area in the health care field that concentrates on the prevention of disability and the physical rehabilitation following injury or impairment. The goals of physical therapy are to help patients regain diminished physical function, which has been lost secondary to injury or disease, and to relieve pain. Doctor of Physical Therapy (DPT).

Health Physics & Diagnostic Sciences

Chair

Madsen, Steen
(1997), Associate Professor; B.S., University of Toronto; M.S., Ph.D., McMaster University.

Graduate Coordinator

Patton, Phillip
(2000), Associate Professor; B.S., Augusta College; M.S., University of Georgia; M.S., Ph.D., University of Florida.

Graduate Faculty

Cheney, Marcos A.
(2005), Assistant Professor; B.S., University of Baja California, Ensenada; M.S., Ph.D., University of California, Davis.

Hirschberg, Henry
(2006), B.E.E. City University New York; M.D., Ph.D., University of Oslo, Norway.

Riland, Carson A.

(1996); B.S. Bloomsburg University; M.S., Ph.D. Texas A&M University.

Sudowe, Ralf

(2006), Assistant Professor; Dipl.-Chem, Dr. rer. nat., Philipps Universität Marburg, Germany.

Many industries, medical facilities, and research laboratories demand professionals who understand radiation hazards, their prevention and control. Prominent among scientists is the health physicist, who controls the beneficial use of ionizing radiation while protecting workers and the public from potential hazards. Our M.S. program provides students with instruction and research opportunities in the field of radiation protection with emphasis on environmental health physics, radioactive waste management, radiation dosimetry, medical physics, and medical health physics. The Department of Health Physics faculty 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. It incorporates the principles and technical skills from many disciplines: physics, chemistry, biochemistry, biology, mathematics, ecology, toxicology, and industrial hygiene. 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 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.

The Program Educational Objectives for the M.S. in Health Physics Program are as follows:

1. Graduates will demonstrate competency in applying the theoretical and problem solving aspects of health physics and related disciplines.
2. Graduates will demonstrate competency in the practical applications of health physics.
3. Graduates will effectively communicate technical information in both oral and written form.
4. Graduates will be competent in research methods and be able to critically review research with the intent of applying findings to their practice.
5. Graduates will be prepared to pursue a lifetime of selfdirected learning and professional development.
6. Graduates will conduct themselves in a professional and ethical manner. Follow this link for more information about the Division of Health Sciences.

Health Physics M.S.

Admission Requirements

Applications for admission may be obtained by contacting the Department of Health Physics or the Graduate College. Completed applications, official Graduate Record Examination (GRE) scores and one copy of official transcripts from all institutions attended after high school are submitted to the Graduate College. All other data (i.e., letters of recommendation and statement of professional goals) are submitted directly to the Department of Health Physics.

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. Twelvesemester 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 HPS 796 or 797.
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. A composite score of 1,000 or higher on the verbal and quantitative sections of the Graduate Record Exam (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.

- 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 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.

Progression

To progress in the program students must:

- Maintain a cumulative grade point average of 3.00 or above each semester enrolled.
- 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.
- A student may register for a course only twice. A student who registered for the same core course twice and has received a grade less than B is ineligible for readmission unless unanimously approved by Health Physics Program graduate faculty.
- Complete a minimum of six semester hours in each calendar year.
- Continuously register for three credit hours of: HPS 796 - Professional Paper or: HPS 797 - Thesis each semester while working on the thesis or professional paper until completion.

Advisement

The Health Physics Graduate Program Director will serve as academic advisor to all entering students for program planning. At the time the student selects his/her examination committee, the committee chairperson becomes the student's official advisor.

Graduation Requirements

Students in the M.S. in Health Physics Program must adhere to the following requirements for graduation:

- Residency Credits.** A minimum of 20 credits exclusive of thesis or special topic project must be earned at UNLV. A minimum of 15 credits must be accumulated within the School of Health and Human Sciences. Attendance at the University of Nevada, Reno does not interrupt, but does not contribute to, residency credits, because this institution is within the University and Community College System of Nevada.
- Credit by Challenge Examination.** Graduate courses in the Health Physics program may not be challenged for credit.
- 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.

- 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. Students are encouraged to meet the requirements of the current catalog.
- A final oral examination will be held following completion of the thesis or professional paper resulting from a special topics project. The final examination must be held at least three weeks prior to the last day of instruction in the term in which the student plans to complete the degree requirements.

Degree Requirements

Requirements for the Master of Science in Health Physics include completion of 37 semester hours in required and elective graduate courses. These requirements will be established in consultation with the student's advisor in accordance with the Department of Health Physics and Graduate College policy and shall include:

- Health Physics Core (22 credits):**
HPS 602 - Radiation Detection ,
HPS 603 - Radiation Physics and Instrumentation Laboratory ,
HPS 620 - Radiation Biology ,
HPS 701 - Radiation Physics and Protection ,
HPS 718 - Radiochemistry Laboratory ,
HPS 720 - Radiation Dosimetry , and
HPS 791 - Graduate Seminar (three times)
- Electives (9 credits):** Graduate-level health physics or other approved graduate-level courses. It is recommended that electives include a statistics course and either the Environmental Health Physics or Medical Physics areas listed below:
 - Environmental Health Physics:**
HPS 670 - Environmental Health Physics ,
HPS 680 - Industrial Hygiene ,
HPS 750 - Radiation Risk Assessment
 - Medical Physics:**
HPS 740 - Medical Imaging Physics ,
HPS 742 - Radiation Therapy Physics
- Completion of a thesis or professional paper (6 credits):**
HPS 796 - Professional Paper or:
HPS 797 - Thesis .

Course Descriptions

HPS 602 - Radiation Detection
HPS 602 - Radiation Detection
HPS 603 - Radiation Physics and Instrumentation Laboratory
HPS 620 - Radiation Biology
HPS 620 - Radiation Biology
HPS 670 - Environmental Health Physics
HPS 670 - Environmental Health Physics
HPS 680 - Industrial Hygiene

HPS 680 - Industrial Hygiene

Note: The courses listed above have been approved for graduate credit. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

HPS 701 - Radiation Physics and Protection

Credits 4

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.

Prerequisites: BIOL 189, CHEM 122 and PHYS 182.

HPS 702 - Radiation Detection and Transport

Credits 3

Detection of ionizing radiation, counting statistics, and radiation transport modeling. **Prerequisites:** HPS 701, STA 161 or 491, or consent of instructor. Corequisite HPS 718

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 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 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

Overview of the cleanup and management of radioactive and mixed wastes in the federal and private sector. Role of radiation protection personnel in radioactive waste management activities discussed. **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- ray 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 781 - Industrial Hygiene II

Credits 3

Overview of the major physical and biological hazards in the industrial environment emphasizing recognition, monitoring technology, engineering control methodology, and best practice. **Prerequisites:** HPS 680 or consent of instructor.

HPS 791 - Graduate Seminar

Credits 1

Overview of research methods, ethics, professional development, and technical communications related to health physics. Students prepare and give seminars on topics of interest in health physics. **Note:** : May be repeated for a maximum of three credits.

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.

Health Sciences

HSC 777 - Advanced Applied Statistics for the Health Sciences

Credits 3

Application of advanced statistical procedures to the investigation of research problems in the health science professions. Emphasis on a conceptual understanding of selected advanced statistical techniques with application to the investigation and analysis of problems in the health sciences area. **Prerequisites:** Introductory course in statistics and introduction to research methodology course or consent of instructor.

Kinesiology & Nutrition Sciences

Chair

Young, John C.

(1991), Professor; B.S.Ed., M.S., University of Michigan; Ph.D., University of Wisconsin, Madison.

Graduate Coordinator

Tandy, Richard D.

(1989), Associate Professor; B.S., Appalachian State University; M.S., Ph.D., Texas A&M University.

Graduate Admissions Coordinator

Wulf, Gabriele

(2001), Professor; Diploma, Ph.D., Deutsche Sporthochschule Koln; Ph.D., University of Munich.

Graduate Faculty

Dufek, Janet S.

(2002), Associate Research Professor, B.S. University of Wisconsin, Superior; M.S. Illinois State University; Ph.D. University of Oregon.

Golding, Lawrence A.

(1976), Distinguished Professor; B.S., M.S., Ph.D., University of Illinois.

Guadagnoli, Mark A.

(1991), Professor; B.S., M.S., Texas A&M University; Ph.D., Auburn University.

Holcomb, William R.

(2001), Associate Professor; B.S. Berry College; M.S. U.S. Sports Academy; Ph.D. Auburn University.

Kruskall, Laura J.

(1999), Associate Professor; B.A. Mount Saint Mary College; M.S. Columbia University; Ph.D. Pennsylvania State University

Mangus, Brent C.

(1985), Associate Professor; B.S., Utah State University; M.S., University of Oregon; Ed.D., University of Utah.

Mercer, John

(1999), Associate Professor; B.S., Buffalo State College of New York; M.S., University of North Texas; Ph.D., University of Oregon.

Rubley, Mack

(2001), Assistant Professor; B.S., University of Colorado; M.S., Pennsylvania State University; Ph.D., Brigham Young University.

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.

Exercise Physiology M.S.

The Master of Science in 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.

Admission Requirements

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 1000 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 send the following information to the Department of Kinesiology:

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.

Degree Requirements

The Master of Science in Exercise Physiology requires a minimum of 33 credit hours. The curriculum for the M.S. in Exercise Physiology consists of the following courses:

Core Courses

- KIN 605 - Sports Nutrition
- KIN 738 - Human Physiology
- KIN 739 - Evaluation of Physical Working Capacity
- KIN 740 - Advanced Exercise Physiology

Research Tools

Electives

KIN 741 - Independent Study in Exercise Physiology I

or

- KIN 742 - Independent Study in Exercise Physiology II
- KIN 751 - Selected Application of Statistical Techniques I
- KIN 750 - Research Methods
- KIN 749 - Thesis

Kinesiology M.S.

The Master of Science in 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.

Admission Requirements

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) is not required for admission except in cases where the department requests it be taken. Successful applicants generally have a 3.00 undergraduate grade point average and a combined score of 1000 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 send the following information to the Department of Kinesiology:

1. Copies of all transcripts sent to the Graduate College.
2. Official GRE scores (when requested by the Kinesiology Department).
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.

Degree Requirements

The Master of Science in Kinesiology requires a minimum of 33 credit hours. The curriculum for the M.S. in Kinesiology consists of the following:

Core Courses - Total Credits: 9

Students must complete one course from each of three areas: biomechanics, motor learning/motor control, exercise physiology.

Research Tools - Total Credits: 9

KIN 750 - Research Methods
KIN 751 - Selected Application of Statistical Techniques I

Specialization - Total Credits: 9

Research opportunities and course work are available in biomechanics, motor learning/motor control, and sports medicine. The individual student's program will be developed in consultation with the student's advisor.

Thesis Option - Total Credits: 9

Students electing to complete a thesis must complete KIN 749 and three credits of electives in consultation with their advisor.

Non-Thesis Option - Total Credits: 9

Students electing this option must complete KIN 748 and select six credits of electives.

Course Descriptions

CLS 612 - Clinical Immunology
 CLS 613 - Clinical Immunology Laboratory
 CLS 614 - Transfusion - Immunohematology
 CLS 615 - Transfusion Medicine Immunohematology Laboratory
 CLS 622 - Clinical Hematology I
 CLS 623 - Clinical Hematology Laboratory I
 CLS 624 - Clinical Hematology II
 CLS 625 - Clinical Hematology Laboratory II
 CLS 632 - Clinical Microbiology I
 CLS 633 - Clinical Microbiology Laboratory I
 CLS 634 - Clinical Microbiology II
 CLS 635 - Clinical Microbiology Laboratory II
 CLS 642 - Clinical Chemistry I
 CLS 643 - Clinical Chemistry I Laboratory
 CLS 644 - Clinical Chemistry II
 CLS 645 - Clinical Chemistry II Laboratory
 CLS 653 - Seminar in CLS IV
 CLS 681 - Clinical Practicum in Hematology
 CLS 682 - Clinical Practicum in Chemistry
 CLS 683 - Clinical Practicum in Immunohematology
 CLS 684 - Clinical Practicum in Microbiology
 CLS 685 - Advanced Clinical Practicum
 KIN 601 - History of Exercise and Sport Science
 KIN 605 - Sports Nutrition
 KIN 614 - Enhancing Mental and Motor Abilities
 KIN 615 - Introduction to Forensic Kinesiology
 KIN 685 - Physical Activity and the Law
 KIN 691 - Exercise Physiology
 KIN 692 - Clinical Exercise Physiology
 KIN 695 - Sports Medicine

Note: The 600-level courses listed above have 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. Note: 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 741 - Independent Study in Exercise Physiology I

Credits 3

Individually arranged programs of in-depth study on selected topics in exercise physiology. Emphasis on respiratory gas analysis, human calorimetry, exercise electrocardiography, body composition, and physical work capacity. **Prerequisites:** Advanced graduate standing in exercise physiology and consent of instructor.

KIN 742 - Independent Study in Exercise Physiology II

Credits 3

Individually arranged programs of in-depth study on selected topics in exercise physiology. Emphasis on respiratory gas analysis, human calorimetry, exercise electrocardiography, body composition, and physical work capacity. **Prerequisites:** KIN 741

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. Note: May be taken for credit to a maximum of four credits.

KIN 748 - Professional Paper

Credits 1 – 6

Note: May be repeated but only two credits will be applied to the student's program. Grading S/F grading only.

KIN 749 - Thesis

Credits 3 – 6

Note: 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. **Prerequisites:** KIN 750

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 760 - Motor Learning

Credits 3

Advanced studies in motor behavior. Discussions of basic concepts and current perspectives. Note: Focus is on training methods that enhance the learning process.

Prerequisites: Consent of instructor.

KIN 761 - Human Motor Control

Credits 3

Advanced studies in motor control, including sensory and central contributions to movement control, coordination, balance, and attention.

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 791 - Independent Study in Biomechanics

Credits 1 – 3

Independent study of a selected topic in biomechanics. Note: May be repeated to a maximum of six credits. A maximum of six hours of independent study accumulated in KIN 790-795 may be counted towards a master's degree.

Prerequisites: Consent of instructor.

KIN 792 - Independent Study in Measurement & Evaluation

Credits 1 – 3

Independent study of a selected topic in measurement and evaluation. Note: May be repeated to a maximum of six credits. A maximum of six hours of independent study accumulated in KIN 790-795 may be counted towards a master's degree. **Prerequisites:** Consent of instructor.

KIN 793 - Independent Study in Motor Behavior

Credits 1 – 3

Independent study of a selected topic in motor behavior. Note: May be repeated to a maximum of six credits. A maximum of six hours of independent study accumulated in KIN 790-795 may be counted towards a master's degree.

Prerequisites: Consent of instructor.

KIN 795 - Independent Study in Sports Injury Management

Credits 1 – 3

Independent study of a selected topic in sports injury management. Note: May be repeated to a maximum of six credits. A maximum of six hours of independent study accumulated in KIN 790-795 may be counted towards a master's degree. **Prerequisites:** Consent of instructor.

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.

Physical Therapy

Chair

Wallmann, Harvey

(1997), Associate Professor; B.A., M.S., Purdue University; M.S., University of Indianapolis; DSc, Loma Linda University.

Graduate Coordinator

Puentedura, E. Louie

(2007), Assistant Professor; B.A.S. and G.D.M.T., Lincoln Institute of Health Sciences, La Trobe University; D.P.T., Northern Arizona University.

Graduate Faculty

Hickman, Robbin

(2007), Assistant Professor; B.S., California State University, Long Beach; M.H.S., University of Indianapolis; D.Sc., Rock Mountain University of Health Professionals.

Landers, Merrill

(2001), Associate Professor; B.S., Brigham Young University; DPT, Creighton University.

McWhorter, J. Wesley

(2000), Associate Professor; Physical Therapy, B.S., Ph.D., Brigham Young University; MPT, Baylor School of Physical Therapy.

Schuerman, Sue

(2006), Assistant Professor; B.S., University of Nebraska; M.B.A., University of Massachusetts, Ph.D., University of Nebraska.

Young, Danny

(2007), Assistant Professor; B.S., Southern Utah University; D.P.T., Creighton University.

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 111 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 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.

Physical Therapy D.P.T.

Admission Requirements

Admission to the program is limited to 30 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 "Nondegree 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 15 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.

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 2.75 on a 4.0 scale with a minimum average of 3.0 on a 4.0 scale for prerequisite courses.
3. A composite score of 1000 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.
4. 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 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.
5. An interview may be required.

Information to be submitted to the Graduate College:

1. Application forms are available on the Graduate College website, with appropriate fees.
2. Official transcripts from all previous college and professional schools.
3. Official scores from the Graduate Record Examination (GRE).

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. Individuals submitting prerequisite course work completed prior to 1995 should contact the Physical Therapy Department Office to determine if the course work is appropriate to fulfill prerequisite course requirements, which are as follows:

1. One year of lecture-based biology courses
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

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*.

Progression

To progress in the Physical Therapy Program students must adhere to the following guidelines:

1. Maintain a cumulative grade point average of 3.00 or above each semester enrolled.
2. 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.
3. 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.
4. 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.
5. The students must follow the proposed curriculum in the specified time frames unless otherwise approved by the ARC, Department Chair, and Graduate Dean.
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.

Graduation Requirements

Students in the Physical Therapy program must adhere to the following requirements for graduation:

1. Satisfactory completion of the Physical Therapy program curriculum including the required period of clinical education with a grade point average of 3.00 or higher on a scale of 4.00.
2. Credit by Challenge Examination. Graduate courses in the Department of Physical Therapy may not be challenged for credit.
3. The program must be completed within six years from the date of matriculation. The chair/director will evaluate potential exceptions.
4. 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.

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.

5. 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.

Degree Requirements

Entry-Level Doctor of Physical Therapy Degree Curriculum - Total Credits: 111

*Beginning with the class of 2011, the curriculum will be modified to reflect faculty and student concerns based upon program assessment. These changes will take place throughout the next year.

Summer Semester 1st Year (Both Sessions) - Total Credits: 9

- DPT 710 - Selected Topics in Physical Therapy - 1 credit
- DPT 711 - Medical Terminology - 1 credit
- DPT 726 - Evidenced-Based Practice in Physical Therapy I - 1 credit
- DPT 744 - Gross Anatomy I - 2 credits
- DPT 744L - Gross Human Anatomy Lab I - 1 credit*
- DPT 745 - Gross Anatomy II - 2 credits
- DPT 745L - Gross Human Anatomy Lab II - 1 credit*

Fall Semester 1st Year - Total Credits: 19

- DPT 730 - Foundations of Observation and Assessment - 2 credits
- DPT 730L - Foundations of Observation and Assessment - 2 credits*
- DPT 741 - Orthopaedic Principles - 3 credits*
- DPT 742 - Clinical and Pathological Physiology - 5 credits
- DPT 746 - Neuroanatomy - 3 credits
- DPT 746L - Neuroanatomy Lab - 1 credit
- DPT 749 - Applied Exercise Physiology - 2 credits
- DPT 749L Applied Exercise Physiology Lab - 1 credit

Spring Semester 1st Year - Total Credits: 19

- DPT 732 - Therapeutic Exercise - 2 credits
- DPT 732L - Therapeutic Exercise - 1 credit
- DPT 735 - Functional Training and Acute Care - 2 credits
- DPT 735L - Functional Training and Acute Care Lab - 1 credit
- DPT 748 - Pharmacology - 2 credits
- DPT 754 - Orthopaedic Assessment in Physical Therapy - 4 credits
- DPT 756 - Neurophysiology - 4 credits
- DPT 790 - Clinical Research in Physical Therapy - 3 credits

Summer Semester 2nd Year (Both Sessions) - Total Credits: 7

- DPT 721 - Advanced Topics in Physical Therapy - 1 credit
- DPT 752 - Physical Agents and Electrophysiology - 2 credits
- DPT 752L - Physical Agents and Electrophysiology Lab - 1 credits*

DPT 761 - Supervised Clinical Education I - 3 credit*

Fall Semester 2nd Year - Total Credits: 16

- DPT 720 - Professional Development - 2 credits
- DPT 757 - Wound Care - 2 credits*
- DPT 770 - Cardiopulmonary Rehabilitation - 1 credit
- DPT 770L - Cardiopulmonary Rehabilitation Lab - 1 credit
- DPT 785 - Orthopaedic Rehabilitation - 2 credits
- DPT 785L - Orthopaedic Rehabilitation Lab - 1 credit
- DPT 786 - Neurological Rehabilitation - 3 credits
- DPT 786L - Neurologic Rehabilitation Laboratory Experience - 1 credit
- DPT 791 - Applied Research Statistics - 3 credits*

Spring Semester 2nd Year - Total Credits: 16

- DPT 727 - Evidence-Based Practice in Physical Therapy II - 1 credit
- DPT 747 - Geriatric Examination and Intervention - 1 credit
- DPT 750 - Prosthetics and Orthotics - 2 credits
- DPT 750L - Prosthetics and Orthotics - 1 credit
- DPT 755 - Geriatric and Pediatric Rehabilitation - 2 credits
- DPT 755L - Geriatric and Pediatric Rehabilitation - 1 credit
- DPT 758 - Diagnostic Testing and Imaging - 2 credits
- DPT 787 - Integrated Rehabilitation - 2 credits
- DPT 787L - Integrated Rehabilitation Lab - 1 credit
- DPT 788 - Spine Examination and Treatment - 2 credits
- DPT 788L - Spine Examination and Intervention Lab - 1 credit

Summer Semester 3rd Year (Both Sessions) - Total Credits: 6

- DPT 751 - Women's Health in Physical Therapy - 2 credits
- DPT 772 - Physical Therapy Administration - 2 credits
- DPT 774 - Psychosocial Aspects of Physical Therapy - 2 credits

Fall Semester 3rd Year - Total Credits: 10

- DPT 762 - Supervised Clinical Education II - 5 credits*
- DPT 763 - Supervised Clinical Education III - 5 credits*

Spring Semester 3rd Year - Total Credits: 9

- DPT 764 - Supervised Clinical Education IV - 6 credits*
- DPT 798 - Directed Research - 3 credits

* Course fee

Course Descriptions

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 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. **Prerequisites:** DPT 726 and 790

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 3

Holistic approach to evaluation and management of patients with various orthopaedic pathologies and dysfunctions. Emphasis placed on theoretical basis of specific functional skills interrelated with clinical decision-making methodology leading to safety awareness and proper body mechanics. Exposure to community/work reintegration and home exercise program instruction. **Prerequisites:** Graduate standing in physical therapy.

DPT 735 - Functional Training and Acute Care

Credits 3

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 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.

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 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.

DPT 750 - Prosthetics and Orthotics

Credits 3

Evaluation of medical, surgical and prosthetic and rehabilitation management of amputations. Design, fabrication and fitting of prosthetic devices as well as general orthotics principles examined. Basic clinical problem solving skills integrated in the context of prosthetic and orthotic management of patients. **Prerequisites:** Graduate standing in physical therapy.

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 4

Evaluation and assessment of upper and lower extremity orthopaedic problems. Functional anatomy, biomechanics, and evaluative manual therapy skills used to functionally diagnose orthopaedic pathologies and disorders.

Prerequisites: DPT 730, 741, and 744.

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 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

Review of systems responsible for the generation of energy. Over-view 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 performance. **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 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. DPT 786, DPT 785
Corequisite DEP 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. DPT 786, DPT 785. 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 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. Note: 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. Note: May be repeated to a maximum of six credits. **Prerequisites:** DPT 790

Other Courses

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.

School of Community Health Sciences

The School of Community Health Sciences is committed to preparing students to meet the critical need for public health professionals in Nevada, the nation, and the world. We provide an excellent program with a variety of areas for concentration and the opportunity for applied research. The School of Public Health has a special interest in community-based participatory research.

The School of Public Health consists of the following departments:

Environmental & Occupation Health
Health Care Administration & Policy
Health Promotion
Epidemiology and Biostatistics

Mary Guinan, Founding Dean

(2004) Professor of Epidemiology and Community Health; M.D., Johns Hopkins University; Ph.D., University of Texas.

Graduate Coordinator

Chino, Michelle
(2000) Associate Professor of Environmental and Occupational Health, B.S., M.S., Ph.D. University of New Mexico.

Graduate Faculty

Bungum, Timothy
(2001) Associate Professor of Biostatistics and Epidemiology; B.A. Luther College; M.S., D.P.H. University of South Carolina.

Buttner, Mark P.
(1989) Associate Professor of Environmental and Occupational Health; B.S. University of Wisconsin; M.S. University of Nevada Las Vegas, PhD University of Nevada Reno.

Cochran, Christopher
(1997) Associate Professor of Health Care Administration and Policy; B.A. University of Texas, El Paso; M.P.A., Ph.D. University of South Carolina.

Cross, Chad
(2005) Associate Professor of Biostatistics and Epidemiology; B.S., Purdue University, M.S., Ph.D. Old Dominion University.

Cruz, Patricia
(1995) Associate Professor of Environmental and Occupational Health, B.S. University of Puerto Rico, M.S. University of Central Florida, PhD. University of Nevada Reno.

Dodge Francis, Carolee
(2007) Assistant Professor of Environmental and Occupational Health; B.S., M.A., Ed.D., University of St. Thomas.

Gerstenberger, Shawn
(1997) Associate Professor and Chair of Environmental and Occupational Health; B.S. University of Wisconsin-Platteville; M.S., Ph.D. University of Illinois.

Ginn, Gregory
(2000) Associate Professor of Health Care Administration and Policy; B.A., M.Ed., MBA, Ph.D. University of Texas, Austin.

McNab, Warren
(1979) Professor of Health Promotion; B.S., M.S. Mankato State University; Ph.D. Southern Illinois University.

Moonie, Sheniz
(2006) Assistant Professor of Biostatistics and Epidemiology, BS University of California San Diego, MS California Polytechnic University, Pomona, PhD Saint Louis University

Moseley, Charles
(1991) Associate Professor and Chair of Health Care Administration and Policy; Ph.D. Virginia Commonwealth University.

Regin, Charles
(1987) Assistant Professor of Health Promotion, B.S., M.S. University of Wisconsin-La Crosse; Ph.D. Southern Illinois University.

Shen, Jie
(2006) Associate Professor and Chair of Health Care Administration and Policy; Ph.D. Virginia Commonwealth University.

Stetzenbach, Linda
(2005) Professor of Environmental and Occupational Health; B.S., M.S., Ph.D., University of Arizona.

Thompson-Robinson, Melva
(2004) Associate Professor of Health Promotion, B.S. University of Michigan, M.S. Ohio University, D.P.H. University of South Carolina.

Wong, David
(2008) Associate Research Professor. B.Sc., M.Sc. Ocean University of Qingdao, Ph.D. City University of Hong Kong.

UNLV School of Community Health Sciences Affiliated Centers, Institutes and Programs

American Indian Research and Education Center
Nevada Institute for Children's Research and Policy
Center for Health Promotion
Center of Excellence for Women's Health Issues
Institute for Security Studies
e-Records and Healthcare Informatics
e-Medical Technology and e-Health Programs
Center for Health Disparities Research

Public Health M.P.H.

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. The Master of Public Health degree (MPH) is comprised of an 18-credit required core for every student. The 21 credits represent the four primary areas of specialty offered in Public Health programs, plus one additional course entitled Fundamentals of Public Health. The four specialty areas include: (1) Health Promotion, (2) Environmental and Occupational Health, (3) Health Care Administration and Policy, and (4) Biostatistics and Epidemiology. In addition to the core courses, each student will select an 18-21 credit concentration area from one of the four aforementioned concentrations. All candidates will finish their MPH degree with a 3-6 credit capstone project resulting in a 42-credit degree program.

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.

Admissions Requirements

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. Satisfactory score on the Test of English as a Foreign Language (TOEFL) is required for applicants whose first language is not English
6. Official copies of all transcripts sent to the Graduate College and unofficial copies to the School of Public Health

Degree Requirements

All students are required to complete six core courses including (18 credits): Biostatistics, Epidemiology, Fundamentals of Environmental and Occupational Health, Theoretical Principles of Health Promotion, Survey of U.S. Health Care Systems, and Fundamentals of Public Health. Additionally, all students are required to complete a Capstone Project. The Capstone Project requirement may be fulfilled by a professional paper, thesis, or internship experience. Students will also be required to take seven courses (18-21 credits) in a concentration area and complete a capstone experience (3-6 credits). The total program of study is 42 credits. A student must have at least a B (3.0) grade point average in all graduate work in order to graduate.

The MPH degree will be awarded only when all these requirements are met.

MPH Core Course Requirements - Total Credits: 18

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 705 - Theoretical Foundations in Health Promotion
EAB 703 - Biostatistical Methods for the Health Sciences

Health Promotion Concentration - Total Credits: 21

Students are required to take the following courses - Total Credits: 15

HED 700 - Contemporary Issues in Health Promotion
HED 730 - Program Evaluation in Health Promotion
HED 720 - Program Planning and Grant Writing in Health Promotion
HED 735 - Practical Applications in Health Promotions
EAB 700 - Research Methods for Public Health
OR
EPY 702 - Research Methods

Six (6) credits may be selected from the following list:

HED 607 Stress Management
HED 627 Methods in Health Education
HED 629 - Education for Sexuality
HED 630 Nutrition (credits: 3)
HED 635 Health Studies of Dangerous Drugs
HED 760 - Technology in Health Promotion

Capstone Requirement

HED 750 - Graduate Project in Health Promotion

An advisor approved course from the pool of university-approved graduate level courses.

Environmental and Occupational Health Concentration

Total Credits: 18-21

Students are required to take the following courses - Total Credits: 9

EOH 601 Environmental Toxicology
EOH 711 - Historical Perspectives in Public Health

Plus four additional courses from the following:

EAB 700 - Research Methods for Public Health
EOH 709 - Scientific/Technical Writing for the Health and Life Sciences
EOH 705 - Social Epidemiology
EOH 713 - Public Health Law
EOH 715 - Qualitative & Field Methods for Public Health
EAB 716 - The Epidemiology of Obesity
EOH 732 - Children, Development, Health, and the Environment
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 - Bioaerosols and Human Health
EOH 769 - Advanced Pollution Ecology
EOH 777 - Emerging Infectious Disease
EOH 795 - Special Topics in Environmental Health
EOH 796 - Independent Study in Environmental Health

Required Capstone Project: Students must receive prior approval from their committee before registering for any capstone experiences.

EOH 793 - Internship in Environmental Health
EOH 794 - Professional Paper in Environmental Health
EOH 798 - Thesis Research

Health Care Administration and Policy Concentration - Total Credits: 18

Students are required to take the following courses

HCA 703 - Management of Health Service Organizations and Systems
HCA 705 - Health Care Accounting and Finance
HCA 706 - Strategic Management of Health Services
HCA 707 - Operations and Quality Management of Health Services
HCA 708 - Information Systems in Health Services Management

Plus one of the following 3 credit-hour course:

HCA 704 - Health Care Economics
HCA 711 - Advanced Health Care Finance
HCA 652 Health Politics and Policy
HCA 761 - Health Care Law and Ethics for Manager
HCA 680 - Organization and Management of Long-Term Care Services

OR

Other advisor approved courses from the pool of university approved graduate level courses.

Required Capstone Project

HCA 709 - Health Care Administration Capstone Course

Biostatistics and Epidemiology Concentration - Total Credits: 18

Students are required to take the following courses - Total Credits: 15

EAB 700 - Research Methods for Public Health
EAB 715 - Chronic Disease Epidemiology
EAB 725 - Epidemiology of Infectious Diseases
EAB 763 - Linear Statistical Models
EAB 783 - Multivariate Methods for the Health Sciences

Students may select from one or two of the following - Total Credits: 3-6

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 Epidemiological Surveillance(3 credits)
EAB 716 - The Epidemiology of Obesity
EOH 775 - Injury Epidemiology
EAB 733 - Survey Sampling for the Health Sciences
EAB 735 - Outbreak Investigation
EAB 753 - Nonparametric Statistics for Public Health
EAB 743 - Experimental Design for the Health Sciences
EAB 773 - Survival Analysis for Public Health

Required Capstone Project - Total Credits: 3-6

Students must receive prior approval from their committee before registering for any capstone experience.

EAB 793 - Internship in Epidemiology and Biostatistics
EAB 794 - Professional Paper in Epidemiology and Biostatistics
EAB 798 - Thesis Research in Epidemiology and Biostatistics

Public Health Ph. D.

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.

Educational Objectives

The Ph.D. in 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.

Students in the program can be admitted to either UNR or UNLV and will follow a common curriculum of required classes. Elective courses may be taken at either institution, and the dissertation is supervised by a chair at the admitting institution and a doctoral committee with members from either or both institutions.

The curriculum was developed jointly by faculty from the Schools of Public Health 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.

Admission Requirements-UNLV

Admission into the Public Health PhD Program through UNLV will require applicants to meet the standards of 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 positions. Students will be admitted once a year, for the fall semester. Applicants must have submitted all required materials by the June 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 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. Outstanding candidates without masters' degrees may be provisionally admitted at the discretion of the selection committee with the understanding that they will complete the masters' degree prior to advancement to the Ph.D. program.
2. A minimum grade point average of 3.0 (4.0=A) earned in a masters' program of study.
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.

4. Language Competency-Applicants from countries where English is not the native language, or who do not receive a degree from an institution where English is the language of instruction must show competency in English, meeting the Graduate College or Graduate School requirements: "a minimum score of 550 on the written or 213 on the computerized Test of English as a Foreign Language (TOEFL) or 85 on the Michigan Test"
5. Letters of Recommendation- Three (3) letters of recommendation are required from 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.
7. Interview-Applicants will participate in an interview with member(s) of the Admissions Committee, either in person or by telephone.

Degree Requirements

Students in the Public Health doctoral program will be afforded an array of research opportunities in which to complete their dissertation and contribute to the field of public health. Completion of the Ph.D. demonstrates that the graduate has the advanced research skills and competencies necessary to succeed in high level research careers.

All students are required to successfully complete coursework that provides a public health perspective, as well as an Area of Emphasis in a public health discipline. Students must complete 54 credits beyond a Master of Public Health (MPH), or 63 credits beyond a Master's degree in a related field for a minimum of 72 credits. Up to a maximum of 24 credits may be transferred in from a Masters degree, subject to faculty approval. Approved courses will include those taught in other disciplines and must relate to the student's area of research.

Upon admission each student will be assigned an academic (not dissertation) advisor who will help the student plan a program of study for submission to the doctoral curriculum committee

Areas of Emphasis

In addition to the core courses, students will select 27 credits from a list of SCHS courses in an identified emphasis area in accordance with the advising plan developed with their academic advisor. The 27-credit requirement includes 6 hours of seminar, taken over the course of the program. Seminars are from 1 to 3 credits, offered every semester, and cover a range of topics in the field.

Areas of Emphasis include:

Environmental and Occupational Health-available
Social/Behavioral Health-coming soon
Epidemiology and Biostatistics-under development
Health Administration and Policy-under development

Dissertation

Additionally, all candidates will complete not less than 21 dissertation credit hours, as specified in the student’s advising plan.

Program Completion Requirements

1. Credit Hours and Grade point Average

A minimum of 72 graduate coursework in public health is required. Up to a maximum of 24 credits may be transferred in from a Masters degree, subject to faculty approval. Approved courses will include those taught in other disciplines and must relate to the student’s area of research.

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. Qualifying Examination: Test of Subject Matter of Program

All students are required to complete a written/oral Qualifying 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 Qualifying Examination may only be repeated once and must be repeated within a year of the initial attempt. Students unable to pass the Qualifying Examination after a second attempt will be separated from the program.

After successful completion of the Qualifying Exam the student will identify 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, an approved external committee member with expertise in the student’s selected area of emphasis.

3. Comprehensive Examination

Upon completion of all required course work other than dissertation, each student must take a written/oral Comprehensive Examination that will focus on those areas of knowledge most relevant to the student’s dissertation topic. Comprehensive examinations may only be repeated once and must be repeated within a year of the initial attempt. If a student fails a second attempt, the student will be separated from the program.

4. Dissertation Prospectus

Upon successful completion of the comprehensive examination, the student will submit a dissertation prospectus to his/her committee for approval. The student advances to candidacy and can register for dissertation credits and begin their independent research.

5. Final Oral Examination

Upon completion of the dissertation, the student must pass a final oral examination that involves the successful defense of their dissertation study. All advisory 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/ School’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 School in a timely manner.

Environmental Required Core Courses for All Doctoral Students (27 credits): All students are required to take the following 27 credit hours or their approved equivalent:

| UNLV Courses | | UNR Courses |
|--|-----------|---|
| EOH 740 - Fundamentals of Environmental Health | OR | PUBH 725 - Health and the Environment |
| EAB 703 - Biostatistical Methods for the Health Sciences | | PUBH 780 - Biostatistics in Public Health |
| HED 705 - Theoretical Foundations in Health Promotion | | PUBH 701 - Social and Behavioral Health |
| EOH 747 - Transmission of Infectious Disease | | PUBH 620 - Biological Basis of Health & Disease |
| EAB 701 Fundamentals of Epidemiology | | PUBH 712 -Epidemiology in Public Health |
| HCA 701 - U.S. Health Care System: Programs and Policies | | PUBH 755 - Policy and Health Administration |
| EOH XXX Ethics in Public Health | | PUBH 785 - Public Health Ethics |
| EOH XXX Doctoral Student Seminar | | PUBH XXX - Doctoral Student Seminar |

Environmental & Occupational Health

Chair

Gerstenberger, Shawn

(1997) Professor and Chair of Environmental and Occupational Health; B.S. University of Wisconsin-Platteville; M.S., PhD. University of Illinois.

Graduate Faculty

Bungum, Timothy

(2001) Associate Professor of Biostatistics and Epidemiology; B.A. Luther College; M.S., DPH University of South Carolina.

Buttner, Mark P.

(1989) Associate Professor of Environmental and Occupational Health; B.S. University of Wisconsin; M.S. University of Nevada Las Vegas, PhD University of Nevada Reno.

Chino, Michelle

(2000) Associate Professor of Environmental and Occupational Health, B.S., M.S., PhD. University of New Mexico.

Cross, Chad

(2005) Associate Professor of Biostatistics and Epidemiology; B.S., Purdue University; M.S., PhD. Old Dominion University.

Cruz, Patricia

(1995) Associate Professor of Environmental and Occupational Health, B.S. University of Puerto Rico, M.S. University of Central Florida, PhD. University of Nevada Reno.

Dodge Francis, Carolee

(2007) Assistant Professor of Environmental and Occupational Health; B.S., M.A., Ed.D., University of St. Thomas.

Moonie, Sheniz

(2006) Assistant Professor of Biostatistics and Epidemiology, BS University of California San Diego; MS California Polytechnic University, Pomona; PhD Saint Louis University

Stetzenbach, Linda

(2005) Professor Emeritus of Environmental and Occupational Health; B.S., M.S., PhD. University of Arizona.

Thompson-Robinson, Melva

(2004) Associate Professor of Environmental and Occupational Health, B.S. University of Michigan, M.S., Ohio University, D.P.H. University of South Carolina.

Wong, David

(2008) Associate Research Professor. B.Sc., M.Sc. Ocean University of Qingdao, PhD. City University of Hong Kong.

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.

Environmental & Occupational Health M.P.H.

MPH Core Requirements - Total Credits: 18

EOH 710 - Fundamentals of Public Health

EOH 740 - Fundamentals of Environmental Health

EAB 725 - Epidemiology of Infectious Diseases

HCA 701 - U.S. Health Care System: Programs and Policies

EAB 703 - Biostatistical Methods for the Health Sciences

Environmental and Occupational Health Concentration Requirements - Total Credits 18

Students are required to take the following courses - Total Credits: 9

EOH 601 - Advanced Environmental Toxicology

EOH 711 - Historical Perspectives in Public Health

Plus the additional courses (9 credits) from the following:

EOH 702 - Community Based Participatory Research Methods

EOH 709 - Scientific/Technical Writing for the Health and Life Sciences

EOH 705 - Social Epidemiology

EOH 713 - Public Health Law

EOH 715 - Qualitative & Field Methods for Public Health
or

EAB 716 - The Epidemiology of Obesity

EOH 732 - Children, Development, Health, and the Environment

EOH 757 - Parasitology and Public Health

EOH 747 - Transmission of Infectious Disease

EOH 760 - Racial and Ethnic Disparities in Health

EOH 765 - Seminar in Environmental Justice and Public Health

EOH 767 - Bioaerosols and Human Health

EOH 769 - Advanced Pollution Ecology

EOH 775 - Injury Epidemiology

EOH 777 - Emerging Infectious Disease

EOH 795 - Special Topics in Environmental Health

EOH 796 - Independent Study in Environmental Health

HPS 680 - Industrial Hygiene

HPS 781 - Industrial Hygiene II

or

Other advisor approved courses from EOH or EAB, or from the pool of university-approved graduate level courses.

Required Capstone Project - Total Credits: 3-6

Students must receive prior approval from their committee before registering for any capstone experiences:

EOH 793 - Internship in Environmental Health
EOH 794 - Professional Paper in Environmental Health
EOH 798 - Thesis Research
Additional Credits: 3-9 (TBA)

Epidemiology and Biostatistics Concentration

Requirements - Total Credits: 18

Students are required to take the following courses - Total Credits: 12

EAB 700 - Research Methods for Public Health
EAB 715 - Chronic Disease Epidemiology
EAB 763 - Linear Statistical Models
EAB 783 - Multivariate Methods for the Health Sciences

And complete two additional courses (6 credits) from the following:

EAB XXX - Public Health Surveillance
EOH 713 - Public Health Law
EAB 720 - Grant Writing for Epidemiology and Public Health Research
EOH 709 - Scientific/Technical Writing for the Health and Life Sciences
EOH 705 - Social Epidemiology
EOH 795 - Special Topics in Environmental Health
EOH 796 - Independent Study in Environmental Health

Required Capstone Project - Total Credits - Total Credits: 3

Students must receive prior approval from their committee before registering for any capstone experiences:

EOH 793 - Internship in Environmental Health
EOH 794 - Professional Paper in Environmental Health
EOH 798 - Thesis Research

Course Descriptions

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 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 biostatistics, and health care administration in the public health arena.

EOH 711 - Historical Perspectives in Public Health

Credits 3

Significant events and legendary people have shaped modern public health. In this course students will study historical events and people, and present written and oral discussions of selected topics including how these events impact modern 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 767 - Bioaerosols and Human Health

Credits 3

Bioaerosols are biological materials that can elicit adverse health effects when humans are exposed in indoor and outdoor environments. This course will present the physical and environmental parameters that affect the dispersal, transport, and survival of bioaerosols, detail specific bioaerosols of concern, 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 - 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. Same as EAB 790

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. Note: May be repeated to a maximum of six credits. **Prerequisites:** Admission to the School of Public Health or consent of instructor.

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. Note: May be repeated to a maximum of six credits. **Prerequisites:** Admission to the School of Public Health or consent of instructor.

EOH 795 - Special Topics in Environmental Health

Credits 1 – 3

Selected topic of current interest not covered in any existing courses in environmental and occupational health.

Note: May be repeated to a maximum of six credits.

Prerequisites: Admission to the School of Public Health 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. Note: May be repeated to a maximum of six credits. **Prerequisites:** Admission to the School of Public Health or consent of instructor

EOH 798 - Thesis Research

Credits 1 – 6

Note: May be repeated, but a maximum of six credits 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

Note: May be repeated to a maximum of 12 credits

Prerequisites: PhD standing

Health Care Administration & Policy

Chair

Moseley, Charles

(1991) Associate Professor of Health Care Administration; Ph.D., Virginia Commonwealth University.

Graduate Coordinator

Cochran, Christopher

(1997) Associate Professor of Health Care Administration; B.A. University of Texas, El Paso; M.P.A., Ph.D., University of South Carolina.

Graduate Faculty

Ginn, Gregory

(2000) Associate Professor of Health Care Administration; B.A., M.Ed., MBA, Ph.D., University of Texas, Austin.

Shen, Jie

(2006) Associate Professor of Health Care Administration and Policy; Ph.D., Virginia Commonwealth University.

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.

Job opportunities occur in the following types of organizations:

- Hospitals
- Ambulatory care facilities
- Long-term care facilities
- Medical practices
- Insurance companies
- Public health agencies
- Mental health programs
- Managed care organizations
- Community health programs

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 and internships to prepare them for leadership positions in the organization, financing, and delivery of health care services.

Health Care Administration M.H.A.

The Master of Health Care Administration Degree Program is the only graduate Health Care Administration program in the Nevada Public University System (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.

Admission Requirements

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 bachelors degree program, and in all post-baccalaureate course work. An applicant who does not meet this academic criterion may request special consideration.
2. Submit a one to two page personal essay describing why they want to pursue a career in health care management
3. Submit three letters of recommendation
4. Submit a resume
5. In addition, a satisfactory score on the Test of English as a Foreign Language (TOEFL) is required for applicants whose first language is not English.

MHA required courses

HCA 701 - U.S. Health Care System: Programs and Policies
 HCA 703 - Management of Health Service Organizations and Systems

HCA 704 - Health Care Economics
 HCA 705 - Health Care Accounting and Finance
 HCA 706 - Strategic Management of Health Services
 HCA 707 - Operations and Quality Management of Health Services
 HCA 708 - Information Systems in Health Services Management
 HCA 710 - Human Resources Management of Health Care Organizations
 HCA 711 - Advanced Health Care Finance
 HCA 713 - Internship in Health Care Administration
 HCA 715 - Health Services Research Methods
 HCA 761 - Health Care Law and Ethics for Managers
 EAB 703 - Biostatistical Methods for the Health Sciences
 TBA Essentials of Public Health (credits:3)
 HCA 709 - Health Care Administration Capstone Course
 OR
 HCA 799 - Thesis Research

Course Descriptions

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. Scope, potentialities and limitations of traditional epidemiology principles and evaluation of epidemiology information and approaches in health administration practice.

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 704 - 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:** : Three hours undergraduate microeconomics or consent of instructor.

HCA 705 - 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: : Admission to the MPH program, MHA program, or consent of instructor.

HCA 706 - 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 707 - 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 708 - 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. **Prerequisites:** : Graduate standing.

HCA 709 - 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 Note: 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 710 - 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 711 - 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 713 - 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. Note: May be repeated to a maximum of six credits. **Prerequisites:** : Consent of instructor.

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 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 798 - Independent Study

Credits 1 – 3

Independent study in a specific area of student interest under the direction of a faculty member. Note: May be repeated to a maximum of six credits. Grading S/F grading only.

Prerequisites: : Consent of instructor.

HCA 799 - Thesis Research

Credits 3

Note: 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.

Health Promotion

Chair

Gerstenberger, Shawn

(1997) Associate Professor and Chair of Environmental and Occupational Health; B.S. University of Wisconsin-Platteville; M.S., Ph.D. University of Illinois.

Graduate Coordinator

Thompson-Robinson, Melva

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Graduate Faculty

Bungum, Timothy

(2001) Associate Professor of Biostatistics and Epidemiology; B.A. Luther College; M.S., D.P.H. University of South Carolina.

Buttner, Mark P.

(1989) Associate Professor of Environmental and Occupational Health; B.S. University of Wisconsin; M.S. University of Nevada Las Vegas, PhD University of Nevada Reno.

Chino, Michelle

(2000) Associate Professor of Environmental and Occupational Health, B.S., M.S., Ph.D. University of New Mexico.

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(2000) Associate Professor of Health Care Administration and Policy; B.A., M.Ed., MBA, Ph.D. University of Texas, Austin.

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(1979), Professor; B.S., M.S., Mankato State University; Ph.D., Southern Illinois University.

Moonie, Sheniz

(2006) Assistant Professor of Biostatistics and Epidemiology, BS University of California San Diego, MS California Polytechnic University, Pomona, PhD Saint Louis University

Moseley, Charles

(1991) Associate Professor and Chair of Health Care Administration and Policy; Ph.D. Virginia Commonwealth University.

Regin, Charles

(1987), Assistant Professor; B.S., M.S., University of Wisconsin-La Crosse; Ph.D., Southern Illinois University at Carbondale.

Shen, Jie

(2006) Associate Professor and Chair of Health Care Administration and Policy; Ph.D. Virginia Commonwealth University.

Wong, David

(2008) Associate Research Professor. B.Sc., M.Sc. Ocean University of Qingdao, PhD. City University of Hong Kong.

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

In addition to meeting the admission requirement of the Graduate College as outlined in the front of this catalog, applicants must also meet the requirements established by Department of Health Promotion faculty.

1. Interested applicants to the Master of Education degree in Health Promotion should have an undergraduate major in any health or allied health academic discipline. If admission is sought by students who have not earned a major described above, up to credits of additional HED 600-level course work may be required. These deficiencies do not count toward degree requirements.
2. Applicants must have a minimum overall undergraduate grade point average (GPA) of 3.00 on a 4.00 scale during their last 60 credits of undergraduate work.
3. An application for admission must be obtained from the Graduate College. Official transcripts of all colleges and universities attended should be submitted to the Graduate College and Department.
4. Two letters of recommendation, a two-page statement of professional goals, and a current vita should be submitted directly to the Department of Health Promotion.

Applications are processed when all credentials required by both the Graduate College and the Department of Health Promotion have been received and evaluated. The Graduate College will officially notify students of their acceptance. Additionally, the Department of Health Promotion staff will notify students of their advisor, who will work with the student to develop the individual plan of study. Application deadlines include: March 15 for summer enrollment, July 1 for fall enrollment, and November 15 for spring enrollment.

For details of the Master of Public Health program, please see the School of Public Health information. The

Department of Health Promotion offers the Master of Education (Health Promotion M.Ed.) a Master of Public Health (Public Health M.P.H.) degrees with an emphasis in Health Promotion.

Health Promotion M.Ed.

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
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 704 - Health Care Economics
HCA 705 - Health Care Accounting and Finance
HCA 707 - Operations and Quality Management of Health Services
HCA 708 - Information Systems in Health Services Management
HCA 710 - Human Resources Management of Health Care Organizations
HCA 761 - Health Care Law and Ethics for Managers
PUA 701 - Principles of Public Administration
PUA 704 - Seminar in Fiscal Administration
PUA 713 - E-Government Implications for Public Sector Organizations
PUA 708 - Seminar in Public Personnel Administration
PUA 719 - Personnel Assessment and Selection
PUA 740 - Urban Administration
PUA 742 - State Government Administration
PUA 792 - Current Issues in Public Administration
See the Department of Health Promotion for additional curricular information.

Communication Concentration

COM 603 - Public Communication
COM 604 - Principles of Persuasion
COM 607 - Communication Between the Sexes
COM 616 - Conflict Management
COM 684 - Political Communication
COM 706 - Seminar in Intercultural Communication
COM 710 - Survey of Communication Studies
COM 712 - Research Methods II
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 620 - 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 - Historical Perspectives in Public Health
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 - Bioaerosols 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.

Course Descriptions

HED 700 - Contemporary Issues in Health Promotion Credits 3

Selected studies in health promotion, health education or health-related area addressed through readings, discussions, and/or presentations. Formerly (HED 780) Note: Specific topic(s) announced in the schedule of classes. May be taken up to a maximum of six credits. **Prerequisites:** Graduate standing, consent of instructor and/or degree program advisor.

HED 705 - Theoretical Foundations in Health Promotion Credits 3

Study of the social, cultural, demographic, political, and educational foundations of health promotion. Professional and practice settings in health promotion reviewed. Traditional and contemporary concepts of treatment, intervention, and prevention as applied to health promotion investigated.

HED 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 biostatistics, and health care administration in the public health arena.

HED 720 - Program Planning and Grant Writing in Health Promotion

Credits 3

Principles of program planning based on assessing individual and community needs and techniques to evaluate the effectiveness of health promotion programs. Also designed to analyze the process to obtain fiscal resources through grants, contracts, and other internal and external sources. **Prerequisites:** HED 700, 705

HED 725 - 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 Same as HED 725/EAB 705

HED 730 - Program Evaluation in Health Promotion

Credits 3

Provides overview of processes and skills required to effectively evaluate health programs. Formative, summative, process, and outcome evaluation methods discussed for application in a variety of professional settings. Includes socio-cultural, political, administrative, and ethical issues in conducting evaluation. Formerly (HED 715 **Prerequisites:** HED 700, 705, 720

HED 735 - Practical Applications in Health Promotions

Credits 3

Identification and development of methods and strategies within the health education system which influence decisions about personal, family, organizational, and community health promotion. Emphasis on developing competency in planning and implementation of classrooms and clinical teaching strategies and health information dissemination. **Prerequisites:** HED 700, 705, 720

HED 750 - Graduate Project in Health Promotion

Credits 3

Capstone experience provides health promotion graduate degree candidate with opportunity to be involved with indepth project either written, experiential, or combination in nature. Planned and carried out under graduate faculty approval and supervision.

HED 755 - Thesis Research

Credits 1-9

May be repeated, but a maximum of 9 credits will apply towards the student's degree program. Grading S/F grading only. **Prerequisites:** HED 735

HED 760 - Technology in Health Promotion

Credits 3

Use of current technology as it relates to health issues. Provides knowledge and skills to the health professional to enhance utilization of technology applications.

HED 785 - Independent Study in Health Promotion

Credits 1 – 3

Individually arranged study of areas of health promotion not covered in depth in other courses. Note: May be repeated up to a maximum of six credits. **Prerequisites:** Consent of instructor and graduate program advisor.

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. 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, Dean

(2006), D.D.M., University of Louisville; M.P.H., University of South Carolina.

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 Masters of Science program, there are currently three tracks, the Family Nurse Practitioner Track, the Pediatric Nurse Practitioner Track, 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 primary care for infants, children, and adolescents. 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.

We also offer a web-based Ph.D. 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 a position as a nurse educator and researcher, this web-based program may meet your needs.

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, teach undergraduate classes, or supervise students in the clinical setting. It is a wonderful opportunity to enhance your education. UNLV's School of nursing received full re-accreditation through the year 2010 from the National League for Nursing Accreditation Commission (NLNAC), the longest established accrediting body of nursing education programs in the country. It is the maximum period awarded by the NLNAC.

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, Dean

Professor; BS SUNY Albany; MS SUNY Buffalo; Ph.D. SUNY, Health Sciences Center, Syracuse, NY.

Associate Dean for Academic Affairs

Smyer, Tish

(2006), Associate Professor; BS, University of Arkansas Medical Center; MS University of California Los Angeles; DNSc University of California Los Angeles.

Associate Dean for Research

Schneider, Barbara St. Pierre

(2006), Associate Professor; BS Louisiana State University; MN, University of Washington; DNSc, University of California Los Angeles.

Psychosocial Nursing Department Chair

Candela, Lori

(1999), Associate Professor; BS Metropolitan State College; MS, University of Colorado; EdD University of Southern California.

Physiological Nursing Department Chair

Kowalski, Susan

(1994). Associate Professor; BS Northern Illinois University; MS Boston College; MBA Rockford College; Ph.D. Texas Women's University.

MSN Coordinator

Maes, Cheryl

(2004), Lecturer; BS, MS University of Nevada, Las Vegas. Director, St. Jude Program

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Ph.D. Coordinator

Xu, Yu (Philip)

(2005), Professor; BA, Henan University; MS, University of South Alabama; Ph.D., SUNY Buffalo.

Graduate Faculty

Angosta, Alona

(2005). BSN, University of Nevada, Las Vegas; MSN, University of Nevada, Las Vegas.

Bondmass, Mary

(2004), Assistant Professor; BS, MS., Loyola University; Ph.D., University of Illinois Chicago.

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(1984), Professor; BS, MS, University of Illinois; EdD, Northern Illinois University.

Clark, Michele
(2006). Associate Professor; BS University of California San Francisco; MS, Ph.D. University of Arizona.

Cyrkiel, Dianne
(2000), Lecturer; BS. Indiana University; MS University of Texas, San Antonio.

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(2007). Assistant Professor, BSN, Azusa Pacific University; MSN, Cal-State University at Long Beach; PhD, University of Hawaii.

Kawi, Jennifer
(2007). BSN, Saint Louis University; MSN, University of Nevada, Las Vegas.

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(1978), Associate Professor; BS, MA, Bradley University; Ph.D. University of Texas, Austin.

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(2006) Associate Professor; BS Cornell University; MS Boston University; Ph.D. University of South Florida.

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(1984), Professor; BS, MS University of Utah; Ed.D. Brigham Young University.

Tan, Rhigel
(2005). BSN, Cebu City Medical Center College of Nursing; MN, Cebu Normal University.

VanBeuge, Susan
(2006), Lecturer; BS Pacific Lutheran University; MS University of Nevada Las Vegas.

Witt, Rosemary
(1971), Associate Professor; BS University of Iowa; MN University of Washington; Ph.D. University of Texas Austin.

York, Nancy
(2006), Assistant Professor; BS, MS Southern Illinois University at Edwardsville; Ph.D. University of Kentucky.

The master's program has full accreditation by the National League for Nursing (NLN) until 2010 and is also accredited by the Commission on Collegiate Nursing Education (CCNE) from 2008 until 2014. 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 M.S.N. program currently offers the opportunity to become a nurse practitioner (NP) or a nurse educator.

The Ph.D. in Nursing Graduate program is designed to achieve the following program outcomes:

- * Provide leadership in the advancement of nursing as an academic and practice discipline and in political processes that affect nursing and healthcare.
- * Conduct original research that generates new knowledge.
- * Develop, implement and evaluate innovative approaches to teaching and learning.

R.N. to M.S.N. Pathway

Through a collaborative agreement with Nevada State College, registered nurses with an associate's degree or diploma are eligible to apply to take UNLV SON graduate courses as a special student. These courses count toward completion of a BSN. This collaboration shortens the graduate pathway by 9 credits. Upon BSN completion, the student is eligible to apply for one of the pathways in the graduate program. Applicants must meet all current requirements of admission into one of the pathways in the graduate program. For more information, please contact Nevada State College School of Nursing.

Transfer of Credit

The Graduate College evaluates transcripts and determines the credits acceptable to the university. The Graduate Admissions Committee determines the credits that may be applied toward the satisfaction of degree requirements for the Master of Science in Nursing. A limited number of graduate courses taken prior to admission to UNLV may be used in an advanced degree program. The courses must: a. Be approved by the Graduate Admissions Committee. b. Have been taken at an accredited institution. c. Have been completed with a grade of B or higher; B- is not acceptable. d. Upon recommendation of the Graduate Dean, be posted on the student's official UNLV transcript. e. Duplicate or excess credit is not counted toward a UNLV graduate degree.

The actual number of transfer credits accepted is determined when the Proposed Degree Program is filed after admission. No more than seven credits may be accepted. A six-year completion rule applies to all course work utilized in completion of the degree. The date of the first transfer class utilized to fulfill the degree requirements begins the allowed six calendar years. F

Graduates of Baccalaureate Programs from Foreign Countries

Since schools of nursing in foreign countries do not have the opportunity to achieve accreditation by the National League for Nursing Accrediting Commission or the Commission on Collegiate Nursing Education, students graduating from those schools will be exempt from meeting that one criterion for admission. Students will only be accepted on a full admission status, rather than a nonadmitted or provisional status.

Post-Master's Certificate

Individuals who already have a master's degree in nursing and meet the admission qualifications may complete a Post-Master's Certificate for an FNP, PNP or Nurse Educator. 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.

Advisement

Academic faculty advisors are assigned to all entering students for program planning. At the time the student selects his/her examination committee, the committee chairperson becomes the student's official advisor. Students must complete the Proposed Program of Study Form by the end of the second semester of full-time study or the semester after they have achieved 16 credits.

Nursing M.S.N.

The M.S.N. program currently offers three tracks: the Family Nurse Practitioner Track, the Pediatric Nurse Practitioner Track, and the Nurse Educator 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 tracks offer courses year round 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, part time, and accelerated 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
5. Participate in scholarship to further knowledge and abilities in nursing education.

Admission Requirements

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 statistics course within the last three years prior to enrollment in NURS 707.
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 vita.
6. Current registration to practice as a professional nurse in Nevada. Students should submit a copy of their Nursing License with the word "copy" printed over the top.
7. 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.
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 or PNP track must submit a resume or vita that demonstrates a minimum of one year clinical experience as a registered nurse within the three years immediately preceding admission to the program. It is recommended that the most recent year of practice be in an area directly related to the student's proposed pathway of study.
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.
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.

Progression: To progress in the M.S.N. program students must:

Maintain a cumulative grade point average of 3.00 or above each semester enrolled.

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. 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 SON Academic Council.

Complete a minimum of six semester hours in each calendar year.

Continuously register for a minimum of three semester hours of credit each semester while working on the thesis until completion. The three credits may be nonthesis credits, but a student must have a minimum of six credits of thesis credit prior to graduation.

Continuously register for three semester hours of credit each semester while completing the non-thesis option.

Graduation Requirements

- **Residency Credits.** No more than three courses (maximum 7 credits) may be transferred into the program. The Graduate Admissions Committee must approve transfer credit.
- Graduate courses with a 700 number or above may not be challenged for credit.
- **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. Nurse Practitioner students must complete the degree requirements within one year after the final clinical practicum is completed. If the student does not complete all degree requirements within the one-year time frame, he or she will be required to enroll in:
NURS 773 - Clinical Practicum each semester until graduation to maintain clinical skills.
- An examination, oral or written, will be held following completion of course work for students enrolled in either the thesis, research utilization, professional paper or capstone options. The final examination must be held at least three weeks prior to the last day of instruction in the term in which the student plans to complete the degree requirements. Students completing a thesis will be required to hand in the final copy early in the semester in which they plan to graduate. More detailed information is provided in the student handbook.

Part-Time Study

Students may complete the Nursing Education track and the courses prior to the clinical sequence of the NP tracks on a part-time basis, but must be cognizant of the six-year completion rule. Students entering the clinical sequence of the NP tracks must enroll as full-time students. Due to the

heavy clinical commitment in the NP tracks, it is recommended that students work no more than two shifts per week.

Course Requirements for Students in the Family Nurse Practitioner Track - Total Credits: 48

NURS 703 - Advanced Physical Assessment
NURS 704 - Pathophysiology for Advanced Nursing Practice
NURS 705 - Roles in Advanced Practice Nursing
NURS 706 - Nursing Theory and the Research Process
NURS 707 - Nursing Research Methods and Utilization
NURS 713 - Health and Public Policy
NURS 714 - Family Theory and Assessment in Primary Care
NURS 730 - Pharmacology in Primary Care
NURS 749 - Primary Care of the Family I
NURS 759 - Primary Care of the Family II
NURS 769 - Primary Care of the Family III
NURS 752 - Role of the Nurse Practitioner
NURS 773 - Clinical Practicum

Course Requirements for Students in the St Jude FNP Track - Total Credits: 36

NURS 703 - Advanced Physical Assessment
NURS 705 - Roles in Advanced Practice Nursing
NURS 706 - Nursing Theory and the Research Process
NURS 707 - Nursing Research Methods and Utilization
NURS 713 - Health and Public Policy
NURS 714 - Family Theory and Assessment in Primary Care:
NURS 730 - Pharmacology in Primary Care
NURS 752 - Role of the Nurse Practitioner
NURS 769 - Primary Care of the Family III
NURS 773 - Clinical Practicum

Course Requirements for Students in the Pediatric Nurse Practitioner Track - Total Credits: 47

This track is offered when there are sufficient numbers of qualified applicants.

NURS 704 - Pathophysiology for Advanced Nursing Practice
NURS 705 - Roles in Advanced Practice Nursing
NURS 706 - Nursing Theory and the Research Process
NURS 707 - Nursing Research Methods and Utilization
NURS 713 - Health and Public Policy
NURS 714 - Family Theory and Assessment in Primary Care
NURS 730 - Pharmacology in Primary Care
NURS 731 - Advanced Pediatric Health Assessment
NURS 734 - Primary Care in Pediatrics: The Well Child and Adolescent
NURS 744 - Primary Care in Pediatrics: Common Problems
12 hours of clinical practicum required
NURS 752 - Role of the Nurse Practitioner
NURS 764 - Primary Care in Pediatrics: Chronic Conditions
15 hours of clinical practicum required
NURS 773 - Clinical Practicum

Course Requirements for Students in the Nursing Education Track - Total Credits: 39

NURS 706 - Nursing Theory and the Research Process
NURS 709 - Teaching and Learning in Nursing
NURS 710 - Evaluation Strategies For Nurse Educators
NURS 755 - Nursing Educator Role Development
NURS 707 - Nursing Research Methods and Utilization
NURS 724 - Developing Curriculum for Nursing Education
NURS 742 - Advanced Nursing Informatics
Three credits of a NURS elective taken by students selecting the professional paper option. May be taken the following spring.
NURS 723 - Specialty Focus for Nurse Educators
NURS 733 - Nursing Practicum I
NURS 713 - Health and Public Policy
NURS 743 - Nursing Education Practicum 2
NURS 799 - Thesis *
NURS 795 - Research Utilization Project **

***Thesis Option:** 3 credits of NURS 799 must be taken during the summer of the first year and fall of the second year for a total of six (6) credits.

**** Professional Paper Option:** 3 credits of NURS 795 must be taken during the summer of the first year and fall of the second year for a total of six (6) credits.

Scholarly Requirement for All Tracks

Traditionally students in the NP tracks complete a capstone project or a thesis. Nurse educator students traditionally complete a research utilization project, thesis or a professional paper.

Capstone*

NURS 766 - Capstone Seminar I (one semester)
NURS 796 - Capstone Seminar II (one semester)

Thesis*‡

NURS 799 - Thesis (two semesters)

Research Utilization Project‡

NURS 799 - Thesis (two semesters)

Professional Paper‡

NURS 793 - Nursing Education Professional Paper (one semester after the elective is completed)

*=NP students (complete only one of scholarly project listed above. If completing capstone must successfully pass both N766 and N796. If completing thesis must successfully pass N799 for a total of six credits).

‡=Nursing education students (complete only one of the three scholarly projects listed above).

Nursing Ph.D.

Individuals who complete the PhD 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:

- Provide leadership in the advancement of nursing as an academic and practice discipline and in political processes that affect nursing and healthcare.
- Conduct original research that generates new knowledge.
- Develop, implement and evaluate innovative approaches to teaching and learning.

Program Entrance Requirements

Admission into the nursing doctoral program is contingent upon the qualifications of the applicant and the availability of positions. Students are admitted once a year in the fall. Applicants must have submitted all required materials by March 1.

Admission Requirements

1. Earned bachelor's and master's degrees in nursing 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.
2. 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 NURS 705, 706, 707 and 713 from the MSN program prior to taking doctoral courses.
3. A minimal grade point average of 3.5 (4.0 = A) earned in a nursing or health-related master's program of study.
4. Successful completion of graduate course work in statistics and research.
5. Licensed as a Registered Nurse in at least one state or territory of the US.
6. Applicants must present competitive GRE scores on verbal, quantitative and analytic measures. The exam must have been taken within the last five years.
7. 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.
8. 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.

9. Applicants must submit the following written materials for review: a. Two representative samples of scholarly work (e.g., thesis, demonstration project, publications, etc.). b. 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. c. Curriculum Vita or resume.
10. Applicants are required to participate in an interview with members of the Admissions Committee, either in person or by telephone.

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 each fall semester. 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.

Programs of Study

There are two options in the current PhD in Nursing Program: "Nursing Education" Option and "Urban Sustainability: Health" Option (approved and is scheduled to enroll students in Fall of 2010). The UNLV SON PhD in Nursing Curriculum Framework outlines the shared required core courses in the PhD in Nursing Program as well as the selected Option required courses.

A minimum of 65 graduate credit hours is required. Students who have completed appropriate nursing education courses prior to admission will complete a reduced number of credits for a total of no less than 53 graduate credit hours. Students can enroll for either part-time or full-time study.

Degree Requirements

All students will complete the following program of study in terms of major focal areas of the curriculum.

Doctoral Core - Total Credits: 44

- NURS 709 - Teaching and Learning in Nursing
- 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 - Research Methods in Nursing
- NURS 781 - Qualitative Data Analysis Processes
- NURS 785 - Special Topics in Nursing Research
- NURS 789 - Independent Study

NURS 797 - Dissertation

Nursing Education Option - Total Credits: 21

NURS 710 - Evaluation Strategies For Nurse Educators
NURS 724 - Developing Curriculum for Nursing Education
NURS 733 - Nursing Practicum I
NURS 774 - Educational Theory and Philosophy for Nursing
NURS 790 - Independent Teaching Practicum Seminar
NURS 791 - Independent Teaching Practicum

Urban Sustainability: Health Option- Total Credits: 21

NURS 778 - Geographic Information Systems for Health
NURS 782 - Sustainability of Urban Health: Clinical Perspectives
NURS 783 - Economics of Sustaining Urban Health
NURS 784 - Health and Public Policy for Urban Sustainability
NURS 777 - Individualized Study/Dissertation Seminar

Credit Hours and Grade Point Average

A minimum of 65 graduate credit hours is required (students who have completed courses 709, 710, 724, and 733 or equivalent course work in either their masters' or postmasters' education are required to complete a minimum of 53 credits of required course work). 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. Each student, upon admission, will be assigned an initial academic advisor who will plan the student's entire program of study for submission to the Ph.D. Coordinator for approval. Approved courses will include those taught in other disciplines and must relate to the student's area of research.

Progression and Policies

Initial advisors monitor the student's progress through the program of study. In addition, the Ph.D. Coordinator will monitor the student's progress, including adherence to all established policies of the Graduate College. After the student has selected a research topic, the student may either continue with the assigned initial advisor or request a change of 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.

Dissertation Prospectus

Upon successfully completing the comprehensive examination, the student submits a dissertation prospectus to his/her committee for approval. Once the prospectus is approved by the committee, the student submits a "Prospectus Approval Form" to the Graduate College. Upon completion of these requirements, the student achieves candidacy and can register for dissertation credits and begin independent study. The student's major advisor and

dissertation committee are responsible for the student's progression through the dissertation.

Comprehensive Examination

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 completion of these requirements, the student achieves candidacy and can register for dissertation credits and begin independent dissertation study.

Final Oral Examination

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.

Family Nurse Practitioner Certificate

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.

Certificate Requirements

NURS 703 - Advanced Physical Assessment
NURS 704 - Pathophysiology for Advanced Nursing Practice
NURS 705 - Roles in Advanced Practice Nursing
NURS 713 - Health and Public Policy
NURS 730 - Pharmacology in Primary Care
NURS 742 - Advanced Nursing Informatics
NURS 744 - Primary Care in Pediatrics: Common Problems
NURS 749 - Primary Care of the Family I
NURS 759 - Primary Care of the Family II
NURS 769 - Primary Care of the Family III

Nursing Education Post-Masters Certificate

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.

Required Courses:

NURS 709 - Teaching and Learning in Nursing
NURS 724 - Developing Curriculum for Nursing Education
NURS 710 - Evaluation Strategies For Nurse Educators
NURS 733 - Nursing Practicum I

Pediatric Nurse Practitioner Certificate

The role of the Nurse Practitioner is that of direct care provider. Nurse practitioners may be educated in a variety of specialties, but the programs offered at UNLV are those of Family Nurse Practitioner and the Pediatric Nurse Practitioner. Currently the Geriatric Nurse Practitioner pathway is not offered. However, a post-master's certificate will potentially be offered in fall, 2006 if there are a sufficient number of qualified applicants.

NP's practice in clinics, long term care facilities, hospitals, physician offices, managed care corporations, and private industries. Practitioners 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 as well as integrate research findings into practice.

The NP blends some aspects of medicine with Nursing, using a Nursing perspective. When required by state law, as it is in Nevada, NP's have collaborative relationships with physicians. Credentialing examinations, designed by specialty areas, are available and required prior to practice in most states.

A. Core courses completed by ALL practitioner students

NURS 704 - Pathophysiology for Advanced Nursing Practice
NURS 705 - Roles in Advanced Practice Nursing
NURS 706 - Nursing Theory and the Research Process
NURS 707 - Nursing Research Methods and Utilization
NURS 713 - Health and Public Policy
NURS 730 - Pharmacology in Primary Care
NURS 752 - Role of the Nurse Practitioner
NURS 766 - Capstone Seminar I
NURS 796 - Capstone Seminar II

B. Clinical Pathway

NURS 714 - Family Theory and Assessment in Primary Care:
NURS 731 - Advanced Pediatric Health Assessment
NURS 734 - Primary Care in Pediatrics: The Well Child and Adolescent
NURS 744 - Primary Care in Pediatrics: Common Problems
NURS 764 - Primary Care in Pediatrics: Chronic Conditions

Course Descriptions

NURS 622 - AIDS: An Interdisciplinary Perspective
NURS 654 - Introduction to Forensic Nursing
NURS 675 - Nursing Systems Management
NURS 676 - Introduction to Nursing Case Management
NURS 677 - Nursing Case Management Systems
NURS 677 - Nursing Case Management Systems

Note: The above 600-level courses have been approved for graduate credit. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

NURS 703 - Advanced Physical Assessment

Credits 3

Focuses on expanding the skills necessary to do a comprehensive physical assessment. Emphasis on developing advanced techniques in history taking and physical examination to prepare the student for clinical course as a nurse practitioner. Correlation of assessment findings with pathophysiological processes to develop differential diagnosis is presented. **Prerequisites:** Admission to Graduate Program or consent of instructor.

NURS 704 - Pathophysiology for Advanced Nursing Practice

Credits 3

Emphasis on physiologic mechanisms of disease from a cellular perspective. Cellular pathophysiology of disease as it translates into clinical signs and symptoms manifested by the patient. Physiology of growth and development and the physiology of aging as they contrast with pathophysiological mechanisms of disease. **Prerequisites:** Admission into the graduate program in nursing or consent of instructor.

NURS 705 - Roles in Advanced Practice Nursing

Credits 1

Introduces specialty areas within advanced practice nursing. Differentiates between characteristics of each specialty area. **Prerequisites:** Consent of Graduate Program Advisor.

NURS 706 - Nursing Theory and the Research Process

Credits 3

Examines nursing theories/models and their role in practice, research and education. Emphasizes the structure, building

and testing of nursing knowledge. Discussion of the research process. **Prerequisites:** Graduate standing.

NURS 707 - Nursing Research Methods and Utilization
Credits 3

Examines qualitative and quantitative nursing research methods, research utilization and skills for critical evaluation of nursing research. Evaluation of research findings for evidence-based practice or thesis approach to scholarly inquiry also emphasized. **Prerequisites:** NURS 706

NURS 709 - Teaching and Learning in Nursing
Credits 3

Explores traditional and alternative teaching and learning concepts, skills, and strategies. Emphasis is on competencies of an educator. **Prerequisites:** Admission to the Graduate Nursing Program or Certificate Program for Nurse Educators.

NURS 710 - Evaluation Strategies For Nurse Educators
Credits 3

Develops formative/process and summative/outcome evaluations for patients, students, peers and programs using both traditional and alternative evaluation strategies. Experience in evaluating outcomes and processes of education within the context of nursing specialty area. **Prerequisites:** Admission to the Graduate Nursing Program or Certificate Program for Nurse Educators.

NURS 713 - Health and Public Policy
Credits 3

Examines selected health problems 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:** Consent of Graduate Program Advisor.

NURS 714 - Family Theory and Assessment in Primary Care
Credits 3

Study of advanced and emerging theory in family nursing science, determinants of family health, and research in family systems in the context of society and culture. Emphasis on family as client. Applies theory to phenomena in family and child health. **Prerequisites:** Graduate standing.

NURS 720 - Functionality of the GNP Role
Credits 3

Focuses on roles of GNP as expert practitioner, educator, consultant, clinical researcher and systems manager in primary, secondary and tertiary practice settings. Uses bio-psycho-social, spiritual, cultural perspectives and epidemiology data to examine communication,

developmental and intergenerational issues in the care of older adults. Note: (3 hours/week practicum).

Prerequisites: NURS 705 and acceptance into the Gerontological Nurse Practitioner pathway.

NURS 722 - Integrative Health Care
Credits 3

Exploration of healing and wholeness as a philosophy for advanced nursing practice. Examination and evaluation of healing modalities that can be utilized for health promotion and treatment of common health problems. **Prerequisites:** NURS 705, NURS 706

NURS 723 - Specialty Focus for Nurse Educators
Credits 4

Advanced knowledge in nursing specialty area of choice. Under the direction of a nursing faculty mentor, examines interrelationships between theory, practice, and research within specialty area. Includes independent study lab and seminar. **Prerequisites:** Admission to the Graduate Nursing Program or Certificate Program for Nursing Educators.

NURS 724 - Developing Curriculum for Nursing Education
Credits 3

Develop curriculum for educational programs in schools of nursing and clinical agencies. Clinical specialty area and intended practice setting serve as context for course assignments. **Prerequisites:** Admission to the Graduate Nursing Program or Certificate Program for Nursing Educators.

NURS 727 - Nursing Management: Organizational Level
Credits 3

Analysis of theories and goals of nursing management, the processes and resources utilized for goal achievement, and the various systems which impact nursing care delivery. **Prerequisites:** NURS 706, 707, and 713

NURS 730 - Pharmacology in Primary Care
Credits 3

Focuses on the clinical application of pharmacologic and pharmacy kinetics principles in the management of selected health problems of adults and children. Focuses on drugs commonly used for adults and children in primary care settings. **Prerequisites:** NURS 704

NURS 731 - Advanced Pediatric Health Assessment
Credits 3

Focuses on advanced concepts in the physical, social, cognitive and developmental assessment of infants, children, and adolescents. Physical assessment specific to each age group will be studied. Students will also explore several selected developmental screening tools. Note: Three hours/week of precepted clinical/lab. **Prerequisites:** Graduate standing in PNP track.

NURS 733 - Nursing Practicum I

Credits 4

Applies strategies and concepts of the nurse educator role in a practice setting of choice and within the context of clinical specialty area. **Prerequisites:** NURS 709, NURS 710, and NURS 723.

NURS 734 - Primary Care in Pediatrics: The Well Child and Adolescent

Credits 6

Primary care of children and adolescents, specifically, advanced nursing assessment and interventions designed to promote the wellness of children aged 0 through adolescents are emphasized. Includes screening anticipatory guidance and health promotion strategies. Note: Twelve hours of precepted practicum per week. **Prerequisites:** NURS 704 and 731

NURS 740 - The GNP Role in Wellness Management: Primary Prevention

Credits 6

Theoretical and clinical basis of primary prevention for older adults. Focuses on concepts of health promotion, maintenance, screening, teaching, advocacy and financing. Exploration of essential nutrition needs, lifestyle and living patterns of non-institutionalized older adults. Clinical management includes algorithm, protocols and health maintenance flow sheets. Note: (12 hours/week practicum) **Prerequisites:** NURS 703, 704 720, and 730.

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. Note: 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 4

Second practicum to apply and evaluate strategies and concepts of the nurse educator role in a practice setting of choice and within the context of clinical specialty area. **Prerequisites:** NURS 709, NURS 710, NURS 723 and NURS 733.

NURS 744 - Primary Care in Pediatrics: Common Problems

Credits 7

Research-based assessment, diagnosis, management and evaluation of common acute health problems affecting children from infancy through adolescence. Note: Nine hours per week of precepted practicum. **Prerequisites:** : : NURS 731 and 734.

NURS 749 - Primary Care of the Family I

Credits 6

Theoretical and clinical bases of primary and secondary prevention for families across the lifespan. Focuses is on health maintenance, teaching, screening and clinical management of common acute health problems. Emphasis on wellness management, differential diagnoses and pharmacologic/non-pharmacologic treatment options. Note: (15 hours/week clinical). **Prerequisites:** NURS 703, Basic Life Support Certification and current malpractice insurance.

NURS 750 - The GNP Role in Acute Illness Management: Secondary Prevention

Credits 6

Theoretical and clinical basis of secondary prevention (acute care) for older adults. Focuses on clinical management of common acute health problems encountered in an inpatient or outpatient setting, stressing differential diagnosis and pharmacologic/non-pharmacologic treatment options. **Prerequisites:** NURS 740

NURS 752 - Role of the Nurse Practitioner

Credits 2

Assists the student in transitioning into the role of the practicing nurse practitioner. Focuses on ethical decision making, legal issues, various practice plans, billing, credentialing and legal certification requirements for practice. **Prerequisites:** Concurrent enrollment in NURS 769.

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 team-work in academic and practice settings, functioning within institutional expectations, developing a teaching portfolio, legal issues, and future directions in nursing education.

NURS 757 - Field Study in Nursing Management

Credits 3

Application and testing of existing theories and processes of management in the delivery of nursing services. Projects carried out under the guidance of a nursing faculty member, in collaboration with a preceptor in a clinical agency. **Prerequisites:** NURS 727

NURS 759 - Primary Care of the Family II

Credits 8

Theoretical and clinical basis for secondary and tertiary prevention interventions across the lifespan. Focuses on clinical management of common acute health problems. Students examine the individual, familial and societal impact of chronic and terminal illness. Emphasis on differential diagnosis, clinical management and

identification/utilization of community resources Note: (15 hours of clinical per week). **Prerequisites:** Successful completion of NURS 749/749L.

NURS 760 - The GNP Role in Chronic Illness Management: Primary, Secondary and Tertiary Prevention

Credits 8

Focuses on chronic illness management of the older adult in primary, secondary and/or tertiary settings. Seminar presentations include research and practice protocols. Practicum involves increased independence under supervision of on-site preceptors and clinical instructor Note: (15 hours/week practicum). **Prerequisites:** Successful completion of NURS 750.

NURS 762 - Integrative Health Care Practicum I

Credits 3

Development of skill in mind-body therapies. Exploration and evaluation of providers of complementary therapies in the community that enables the student to develop a knowledge base regarding appropriate therapies for common health problems. **Prerequisites:** NURS 722

NURS 764 - Primary Care in Pediatrics: Chronic Conditions

Credits 8

Research based assessment, diagnosis, management and evaluation of common developmental and behavioral problems affecting children and families.

Note: Nine hours of precepted clinical experience in primary care per week. **Prerequisites:** NURS 714, 744

NURS 766 - Capstone Seminar I

Credits 1

Capstone seminar provides students with the opportunity to synthesize core and major coursework completed during the program of graduate study. Capstone seminar I, the first of two capstone credits, culminates in the submission of the first written draft of the capstone project. The capstone is fully developed in capstone II.

NURS 769 - Primary Care of the Family III

Credits 8

This final clinical seminar focuses on continued clinical expertise and relies on the knowledge and skills learned in previous courses. Students gain skill in providing care to families with increasing independence under the supervision of a preceptor and clinical instructor. (1 credit of seminar = 2 contact hours, 7 credits of clinical = 21 contact hours of clinical per week. **Prerequisites:** Successful completion of NURS 749/749L and 759/759L.

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:** : Enrollment in the nursing doctoral program.

NURS 773 - Clinical Practicum

Credits 3 - 6

Designed for students continuing a clinical practicum while completing NURS 795/799/796. 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. Note: May be repeated up to three consecutive semesters but a student may not take more than a total of nine credits.

Prerequisites: Successful completion of NURS 769/769L.

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:** Enrollment in the nursing doctoral program; NURS 775 or equivalent.

NURS 777 - Individualized Study/Dissertation Seminar

Credits 1 - 8

Individualized study or seminar to facilitate dissertation research. Note: May be repeated to a maximum of eight credits. **Prerequisites:** : : Admission into doctoral program or permission of instructor.

NURS 778 - Geographic Information Systems for Health

Credits 3

Introduces the use of epidemiologic methods and modern geographic information systems to analyze the relationships between socioeconomic, physical, geopolitical, and demographic factors and urban health. These techniques for the basis of assessment of urban health problems to inform, plan, deliver, and evaluate appropriate interventions to ensure urban sustainability. **Prerequisites:** Admission into doctoral 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 - Research Methods in Nursing

Credits 3

Examines qualitative, quantitative and mixed-method approaches used in nursing research. **Prerequisites:** Admitted to nursing doctoral program.

NURS 781 - Qualitative Data Analysis Processes

Credits 3

Study of range of approaches to management of qualitative data; exploration of criteria for validity and reliability of outcomes. **Prerequisites:** NURS 780, Enrollment in the Nursing Ph.D. Program.

NURS 782 - Sustainability of Urban Health: Clinical Perspectives

Credits 4

Focuses on air quality, potable water, waste disposal, disasters, and other potentially health-threatening urban environmental problems that affect urban sustainability in developing and developed countries. The impact of sustainability environmental practices on urban health will be examined. **Prerequisites:** Admission into doctoral program or permission of instructor, NURS 778.

NURS 783 - Economics of Sustaining Urban 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 urban health in developing and developed countries will be compared. **Prerequisites:** Admission into doctoral program or permission of instructor.

NURS 784 - Health and Public Policy for Urban Sustainability

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 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. **Prerequisites:** Enrollment in nursing doctoral program, NURS 770, 771, 772, 780.

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. Note: Must be taken concurrently with NURS 791. **Prerequisites:** NURS 724, NURS 733 and enrollment in nursing doctoral program.

NURS 791 - Independent Teaching Practicum

Credits 8

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. **Prerequisites:** NURS 724, NURS 733 and enrollment in nursing doctoral 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 733

NURS 795 - Research Utilization Project

Credits 3

Identify a clinically based problem in area of nursing practice. Evaluate extent current practice deviates from research based practice. Design, implement and systematically evaluate a research-based innovation project. Note: May be repeated, but only six credits may be applied to the student's program. Grading S/F grading only.

Prerequisites: NURS 706, 707

NURS 796 - Capstone Seminar II

Credits 1

Capstone seminar II provides students with the opportunity to complete the development of the graduate program capstone project initiated in seminar I. The final written project will be submitted for grading, and the project will be presented orally to the student's advising committee and any interested parties. **Prerequisites:** NURS 766

NURS 797 - Dissertation

Credits 1 – 12

Research analysis and writing toward completion of dissertation and subsequent defense. Formerly (NURS 798) 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) Note: Topics vary each semester. **Prerequisites:** Admission to graduate program and consent of instructor.

NURS 799 - Thesis

Credits 3

Note: May be repeated, but only six credits may be applied to the student's program. Grading S/F grading only. **Prerequisites:** NURS 706, 707

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 and leisure services profession than the entertainment capital of the world - Las Vegas. Here we have a living laboratory of more than 133,000 hotel rooms, hundreds of restaurants, resorts, sporting events, conventions, trade shows, and leisure and recreation facilities, programs and services. Is the perfect complement to your education. 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 master's degrees in Hotel Administration, and Sports and Leisure Service Management, plus a dual M.S. in Hotel Administration and MBA or MIS degrees. We also have an executive master's degree and a Ph.D. in Hospitality Administration. Our internationally recognized diverse faculty members are willing to work with you to create an academic program that meets your unique needs.

Stuart H. Mann, Dean

(1998), Professor; B.S., University of Illinois; M.S., Ph.D., Case Western Reserve University.

Director of Graduate Studies

Brewer, Kathleen Pearl

(1993), Professor; B.S., M.S., Ph.D., Purdue University.

Graduate Coordinators

Ph.D. Program: Bai, Bill

(2001), Associate Professor; B.A., Nankai University; M.Phil., Hong Kong Polytechnic University; M.S., Ph.D., Purdue University.

M.S., Hotel Administration Program: Love, Curtis C.

(1998), Associate Professor; B.S., University of Southern Mississippi; M.A., Ph.D., University of Alabama.

M.S., Sport and Leisure Service Management: Busser, James A.

(1987), Professor; B.S., Illinois State University; M.S., Ph.D., University of Illinois at Champaign-Urbana.

Executive M.H.A. Program: Sammons, Gail

(1996) B.S., Professor; North Dakota State University; M.S., University of Nevada, Las Vegas; Ph.D., Pennsylvania State University.

Dual Programs: Mayer, Karl

(2001) Associate Professor; B.S., University of Wisconsin-Madison; M.S., Columbia University; M.B.A., Harvard University; Ph.D., University of Nevada, Las Vegas.

Graduate Faculty

Bai, Bill

(2001), Associate Professor; B.A., Nankai University; M.Phil., Hong Kong Polytechnic University; M.S., Ph.D., Purdue University.

Baloglu, Seyhmus

(1996), Professor; B.S., Cukurova University; M.B.A., Hawaii Pacific University; Ph.D., Virginia Polytechnic Institute and State University.

Barrie, Elizabeth

(2008), Assistant Professor; B.A. University of Michigan; M.S., Ph.D., Indiana University.

Berghel, Hal

(1999), Professor; B.A., M.A., M.A., Ph.D., University of Nebraska, Lincoln.

Bergman, Christine

(2005), Professor; B.S., Loma Linda University; M.S., University of Arizona; Ph.D., Michigan State University.

Bernhard, Bo Jason

(2002), Associate Professor; B.A. Harvard University; M.A., University of Nevada, Las Vegas; Ph.D., University of Nevada, Las Vegas.

Braunlich, Carl

(2006), Associate Professor; B.S., M.S., Cornell University; D.B.A., United States International University.

Brewer, Kathleen Pearl

(1993), Professor; B.S., M.S., Ph.D., Purdue University.

Busser, James A.

(1987) Professor; B.A., Illinois State University; M.S., Ph.D., University of Illinois-Champaign-Urbana.

Chatfield, Hyun Kyung

(2008), Assistant Professor; B.S., M.B.A., Ph.D., University of Nevada, Las Vegas.

Carruthers, Cynthia P.

(1990), Professor; B.S., M.S., Ph.D., University of Illinois at Champaign-Urbana.

Christianson, David J.

(1977), Professor; B.A., M.R.E., Brigham Young University; Ph.D., Texas A&M University.

Dalbor, Michael C.

(2000), Professor; B.S., Ph.D., Pennsylvania State University; M.B.A., Loyola College.

Eade, Vincent

(1986), Associate Professor; B.A., M.A., Bonaventure.

Erdem, Mehmet

(2006), Assistant Professor; B.S., M.S., Purdue University; Ph.D., University of Nevada, Las Vegas.

Giannoulakis, Chrysostomos,

(2008), Assistant Professor; B.A. Aristotle University of Thessaloniki; M.A. Springfield College; Ph.D., University of Northern Colorado.

Gu, Zheng

(1991), Professor; B.S., Hangzhou University; M.S., Ph.D., University of Central Florida.

Hardigree, Christian

(2001), Assistant Professor; B.S., University of Nevada, Las Vegas; J.D., Mercer University School of Law.

Henthorne, Tony L.

(1986), Professor; B.A., Ouachita Baptist University; M.B.A., University of Arkansas, Fayetteville; Ph.D., University of Mississippi.

Hertzman, Jean,

(2006), Assistant Professor; B.S., Cornell University; MBA, Tulane University; Ph.D., University of Nevada Las Vegas.

Jones, Thomas

(1990), Associate Professor; B.F.A., University of South Dakota; B.S., M.S., University of Nevada, Las Vegas; Ed.D., Arizona State University.

Kim, Yen-Soon

(2005), Assistant Professor; B.S., M.S., Soonchunhyang University; Ph.D., Oklahoma State University.

Kincaid, Clark S.

(2004), Assistant Professor; B.A. Southern Utah State College, M.S., Ph.D., University of Nevada, Las Vegas.

Latour, Kathryn

(2004), Associate Professor; B.S., University of Colorado; M.S., Boston University; Ph.D., University of Iowa.

Livengood, Jennifer

(2007), Assistant Professor; B.A. Southern Illinois University; MSW, Ph.D., University of Illinois-Champaign-Urbana.

Love, Curtis C.

(1998), Associate Professor; B.S., University of Southern Mississippi; M.A., Ph.D., University of Alabama.

Lucas, Anthony

(2001), Associate Professor; B.S., Ball State University; M.B.A., Ph.D., University of Nevada, Las Vegas.

Mann, Stuart H.

(1998), Professor and Dean of the Harrah College of Hotel Administration; B.S., University of Illinois; M.S., Ph.D., Case Western Reserve University.

Mayer, Karl

(2001), Associate Professor; B.S., University of Wisconsin-Madison; M.S., Columbia University; M.B.A. Harvard University; Ph.D., University of Nevada, Las Vegas.

McCool, Audrey

(1990), Professor; B.S., M.A., University of Illinois, Urbana; Ed.D., Texas Tech University.

McLean, Daniel
(2007), Professor; B.A., Sacramento State College; M.A., Brigham Young University; Ph.D., Kansas State University.

Moreo, Pat
(1983), Professor; B.S., University of Nevada Las Vegas; M.P.S., Cornell University; Ed.D., University of Nevada Las Vegas.

Nazarechuk, Andy
(2001), Associate Professor; B.S., University of Nevada Las Vegas; M.S. University of Nevada Las Vegas; Ed.D., University of La Verne, California.

Nelson, Kathy
(1996), Assistant Professor, B.S., M.S., Ph.D., University of Nevada, Las Vegas.

Raab, Carola
(2003), Associate Professor; B.S., University of Nevada Las Vegas; M.B.A., University of Nevada Las Vegas; Ph.D., University of Nevada Las Vegas.

Sammons, Gail
(1996), Professor; B.S., North Dakota State University; M.S., University of Nevada, Las Vegas; Ph.D., Pennsylvania State University.

Singh, Ashok
(1991), Professor; B.S., M.S., Lucknow University; Ph.D., Purdue University.

Stahura, Kurt
(2004), Associate Professor, B.A., University of Wisconsin; M.A., Ph.D., University of Minnesota.

Stefanelli, John
(1987), Professor; B.S., University of Illinois; M.B.A., Michigan State University; Ph.D., University of Denver.

Swerdlow, Skip
(1981), Professor; B.S., M.B.A., D.B.A., Arizona State University.

Tanford, Sarah
(1983), Assistant Professor; B.A., Northwestern University; M.S. University of Wisconsin-Madison; Ph.D. University of Wisconsin-Madison.

Werner, Bil
(2001), Associate Professor: B.A., Ohio State University; J.D., University of Cincinnati.

Woods, Robert N.
(2000), Professor; B.S., University of Oklahoma; M.S., Ph.D., Cornell University.

Young, Cheri
(1999), Associate Professor; B.S., State University of New York at Albany; M.S., Rochester Institute of Technology; Ph.D., Cornell University.

Professor Emeritus

Vallen, Jerome J.
(1967-1998), Emeritus Dean of the College of Hotel and Professor; B.S., Ph.D., Cornell University; M.Ed., St. Lawrence University.

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.

Dual Degrees: M.B.A. or M.I.S. & M.S. in Hotel Administration

The dual MBA or M.I.S. and M.S. in Hotel Administration program of study is designed for those who seek career and business or information technology leadership opportunities in hotel administration. These degrees are offered in conjunction with the University of Nevada, Las Vegas College of Business. 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 core M.I.S. program gives a student key skills in information technology systems analysis and design. The M.S. in Hotel Administration portion of the dual degree is designed to provide the industry-specific skills and knowledge. Students will receive a dual degree, an MBA and a M.S. in Hotel Administration, or an M.I.S. and a M.S. in Hotel Administration.

Admission

The admission requirements for the dual degree program are the same as those stated under the M.B.A., M.I.S. or M.S. in Hotel Administration programs. Admission requires that applicants submit evidence of at least one year of full-time experience in management in the hospitality industry or three years of consecutive full time entry-level experience in hospitality.

Application Process

See the Application Process Section under the M.B.A., M.I.S. and the M.S. in Hotel Administration programs. Applications will be reviewed by representatives of the UNLV College of Business and Harrah Hotel College. Applications will be reviewed by representatives of the UNLV Colleges of Business and Hotel. Applicants must be admitted to both the M.B.A. or M.I.S. and Master of Science in Hotel Administration programs to qualify for either dual degree program.

Degree Requirements

Students must be admitted to both the M.B.A. and M.S. in Hotel Administration programs with graduate standing. For the dual M.B.A./Hotel Administration program, a student must successfully complete the 54 total credit hours with 33 credit hours of the M.B.A. required core courses, and 21 credits hours of required Hotel Administration courses, consisting of eighteen credits of required courses and one three credit elective course (600/700 level). Students must

complete an initial nine-credit course load in the M.B.A. program (i.e. MBA 702, MBA 709 and MBA 710) before enrolling in any Hotel Administration courses. For the dual M.I.S./Hotel Administration program, a student must complete 48 total credit hours, 24 in the M.I.S. program and 24 in Hotel Administration. The 48 credits consist of 16 required courses. There are no elective courses in the M.I.S. and Hotel Administration dual degree program. Students must complete an initial nine-credit course load in the M.I.S. program before enrolling in any hotel administration courses.

The dual program requires successful completion of a professional paper and should adhere to the American Psychological Association's current Publication Manual regarding writing style and format. Professional papers must be bound and copies provided to the department office and advisor.

M.B.A./Hotel Administration Required Courses:

A. MBA Core Courses - Total Credits: 33

MBA 702 - Statistical Analysis
 MBA 706 - Law, Regulations and Ethical Issues
 MBA 707 - Organizational Behavior
 MBA 709 - Accounting for Managers
 MBA 710 - Applied Economic Analysis
 MBA 711 - Managerial Finance
 MBA 715 - Market Opportunity Analysis
 MBA 720 - Supply Chain Management
 MBA 730 - Information Systems for Management
 MBA 735 - International Business and Cross Cultural Perspectives
 MBA 795 - Strategy Formation Processes

B. Hotel Administration M.S. Courses (dual M.B.A. degree) - Total Credits: 21

HOA 703 - Human Resources Management in the Hospitality Industry
 HOA 716 - Principles and Practices in Hotel Management
 or
 HOA 718 - Principles of Casino and Gaming Management
 or
 HOA 720 - Principles and Practices in Food Service Management
 HOA 735 - Research Methodology
 HOA 760 - Research Seminar in Hotel Administration
 or
 HOA 761 - Research Seminar in Food Service Administration
 or
 HOA 763 - Research Seminar In Casino and Gaming Management
 HOA 751 - Hospitality Service Management
 HOA Elective (600- or 700-level)

C. M.I.S. Core Courses – Total 24 Credits

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

With approval of the 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.

D. Hotel Administration M.S. Courses (dual M.I.S. degree) - Total Credits 24

HOA 716 - Principles and Practices in Hotel Management
 or
 HOA 717 - Principles and Practices in Convention and Meetings Management
 or
 HOA 718 - Principles of Casino and Gaming Management
 or
 HOA 720 - Principles and Practices in Food Service Management
 HOA 731 - Operational Analysis in Hospitality Management
 HOA 735 - Research Methodology
 HOA 725 - Information Technology in the Hospitality Industry
 HOA 751 - Hospitality Service Management
 HOA 760 - Research Seminar in Hotel Administration
 or
 HOA 761 - Research Seminar in Food Service Administration
 or
 HOA 763 - Research Seminar In Casino and Gaming Management
 or
 HOA 777 - Critical Issues in Hospitality Management
 HOA 788 - Professional Paper (Professional paper must be completed at the end of the dual program and examine a topic relating to Information Technology in Hospitality)

Hospitality Administration - Executive Program (Online) M.H.A.

The Master of Hospitality Administration (M.H.A.) is a 30-credit program is designed to bring hospitality executives together to learn the latest management and leadership techniques in an executive format, via the Internet or other media. Demand determines the schedule for the program. The program is offered through both the University of Nevada, Las Vegas main campus and the Singapore

campus of the University of Nevada, Las Vegas. There are slight differences in delivery of the two programs. However, the admission and degree requirements are the same for both.

This program is offered through both the Las Vegas campus and the Singapore campus of the University of Nevada, Las Vegas. There are slight differences in delivery of the two programs. However, the admission and degree requirements are the same for both.

University of Nevada Las Vegas, main campus MHA 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 one required course and one supporting course are offered during each session in addition to the professional paper class. 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.

UNLV Singapore MHA program:

Students take classes online and are required to spend one week on campus each semester. For more information on the Singapore MHA program visit the website: <http://hotel.unlv.edu.sg/>.

Admission Requirements

The applicant must meet the following requirements:

1. Submission of completed application form and required admission fee.
2. Submission of official transcripts from all institutions attended after high school to both the Harrah Hotel College Graduate Studies Office and the Graduate College.
3. A baccalaureate degree from an accredited four-year college or university with an overall undergraduate grade point average of 2.75 on a 4.00 scale or at least 3.00 in the last two years of undergraduate work.
4. Three or more years of full-time experience in a management or supervisory capacity in the hospitality industry.
5. Two letters of recommendation, one from the applicant's current employer and the other from a college faculty member able to evaluate the applicant's potential for success in a graduate degree program. If the applicant has not been in a college program in the last six years, a letter from a former employer may be substituted for the second letter.
6. A current resumé.

7. A brief essay of approximately 500 words outlining the applicant's career goals and reasons for pursuing a graduate degree.
8. International applicants: if English is not the applicant's native language, and his/her baccalaureate degree was not from a school where English was the language of instruction, the applicant must complete one of the language tests listed below with the minimum score indicated or above:

TOEFL: Paper-based Test: 550 (minimum writing score: 58)

Computer-based Test: 213 (minimum writing score: 24)

Internet-based Test: 80 (minimum writing score: 21, minimum speaking score: 21)

Michigan Test: 85% (minimum scores: 40 out of 50 speaking; 40 out of 50 writing)

IELTS: 7

Unofficial scores may be submitted with the online application, but official scores must be sent directly from the testing center to the Graduate College to complete the application.

*Neither the GRE nor GMAT is required for admission to this program.

Degree Requirements

Students must successfully complete 30 credit hours of 500/600-level course work in the Harrah Hotel College. These credits will come from four elective supporting courses, five core courses and a professional paper as determined by the faculty.

Students may take courses in any order with two exceptions: six credit hours must be completed before MHA 635 Research Methods can be taken, and it is recommended that the professional paper be taken in the last semester. Students can schedule their individual programs with the MHA advisor.

Required Courses

MHA 603 - Human Resources and Behavior in the Hospitality Industry

MHA 605 - Financial Analysis for Service Industries

MHA 640 - Marketing Systems

MHA 635 - Research Methodology

MHA 651 - Hospitality Service Management

MHA 691 - Professional Paper

MHA Elective Courses

MHA 538 - Fundamentals of Casino Operations

MHA 601 - Operational Analysis in Hospitality Management

MHA 611 - Laws of Innkeeping and Food Service

MHA 616 - Principles and Practices in Hotel 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 641 - Dynamics of Tourism
 MHA 706 - Hospitality Revenue Management
 MHA 726 - Sustainability in the Hospitality Industry
 See courses for Hotel Administration and Hospitality Administration for a complete list.

Hospitality Administration Ph.D.

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 not only focuses on preparing students to be excellent teachers at the university level, the program also engages them in conducting scholarly research in hospitality and tourism management. Upon graduation, students will be able to teach and 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.

Admission Requirements

The student must satisfy the minimum admission requirements of the Graduate College and the Harrah Hotel College including:

1. Submission of a completed application and required application fee.
2. Submission of official transcripts from all institutions attended after high school.
3. Master's degree from an accredited institution with at least 24 credits in hotel administration or business administration, food service administration, tourism/convention administration, or a closely aligned field.
4. Three or more years of full-time management/supervisory experience in the hospitality industry.
5. An overall GPA of 3.00 on a 4.00 scale for all work completed at the post-baccalaureate level.
6. Completion of the Graduate Management Admission Test (GMAT) with a minimum score of 550 (only official scores will be accepted).
7. Three letters of recommendation, two of which must come from faculty members with whom the student has previously studied, evaluating the student's ability to perform at the Ph.D. level of study. The third letter is to come from a current or former employer. If the

applicant is no longer in touch with faculty members, letters from two employers will suffice.

8. A statement of 500 words outlining what the applicant would expect to accomplish during the Ph.D. program and his/her particular research interest(s).
9. An M.S. level thesis or the equivalent.
10. A current resumé.

International applicants: if English is not the applicant's native language and his/her baccalaureate degree was not from a school where English was the language of instruction, the applicant must complete one of the language tests listed below with the minimum score indicated or above:

TOEFL: Paper-based Test: 550 (minimum writing score: 58)

Computer-based Test: 213 (minimum writing score: 24)

Internet-based Test: 80 (minimum writing score: 21, minimum speaking score: 21)

Michigan Test: 85% (minimum scores: 40 out of 50 speaking; 40 out of 50 writing)

IELTS: 7

Unofficial scores may be submitted with the online application, but official scores must be sent directly from the testing center to the Graduate College to complete the application.

Degree Requirements

Total Credits Required for the Hospitality Ph.D.: 60

All requirements listed below must be completed successfully as defined by the College and the Graduate College.

Required Core Courses (Total Credits: 12)

HOA 794 - Issues and Trends for Hospitality Educators (to be repeated three different semesters - one credit each)
 HOA 798 - Readings in Hospitality Management
 HOA 797 - Philosophy of Science in Hospitality Research
 HOA 795 - Research Seminar in Hospitality Education

Required Quantitative Methodology and Qualitative Methodology (Total Credits: 9)

HOA 735 - Research Methodology
 HOA 796 - Advanced Research Methodology
 EPY 718 - Qualitative Research Methodologies

Required Statistical Analysis (two courses from the following for a total Credits: 6)

EPY 722 - Inferential Statistics and Experimental Design
 or
 STA 715 - Multivariate Statistical Methods
 STA 713 - Experimental Design

Major and Minor Area of Study (Total Credits: 15)

Courses to be approved by student's chair and the academic advisor.

Major area course

Major area course

Major area course

Minor area course

Minor area course

Electives - Total Credits: 6

Elective course

Elective course

Can be used to fulfill a prerequisite if the courses are at the 700 level or higher.

Dissertation - Total Credits: 12

HOA 799 - Dissertation

1. Must have at least 24 credits in the Harrah Hotel College (excluding dissertation credits) and 12 credits outside of the 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 2.00 or better. Any credits completed with less than a 2.00 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 must be passed.
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, the Doctoral Advising Committee, the Doctoral Program Committee, and the Executive Director of Graduate Studies and Research.
5. 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 committee under the direction of the dissertation chair. This exam must be taken within five years of the admission date.
6. The student must successfully write and defend his/her dissertation program 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.
7. All students admitted to the program may spend the equivalent of two semesters completing an approved internship if necessary.

For additional information, please contact Dr. Billy Bai, Director of the Ph.D. Program, Harrah Hotel College, at (702) 895-4844 or by e-mail at billy.bai@unlv.edu.

Hotel Administration M.S.

The 36-hour Master of Science in 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 will 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 also meet the Graduate College guidelines and be completed according to published deadlines.

Admission Requirements

The student must satisfy the minimum admission requirements of the Graduate College and the Harrah Hotel College, including:

1. Submission of online completed 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 to the Graduate College and the other to the Harrah Hotel Graduate Studies Office.
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) (dept code 4208), minimum score 1150 or 50th percentile—with at least 35% on the verbal portion, or the Graduate Management Admissions Test (GMAT) (dept code ZSC 3739), minimum score 550 -- with at least 25% on the verbal portion. All scores must be sent directly from the testing center in 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, place and date of employment and specific job responsibilities.
9. International applicants: if English is not the applicant's native language, and his/her baccalaureate degree was not from a school where English was the language of instruction, the applicant must complete one of the language tests listed below with the minimum score indicated or above:

TOEFL: Paper-based Test: 550 (minimum writing score: 58)

Computer-based Test: 213 (minimum writing score: 24)

Internet-based Test: 80 (minimum writing score: 21, minimum speaking score: 21)

Michigan Test: 85% (minimum scores: 40 out of 50 speaking; 40 out of 50 writing)

IELTS: 7

Unofficial scores may be submitted with the online application, but official scores must be sent directly from the testing center to the Graduate College to complete the application.

Degree Requirements

In addition to the general requirements established by the Graduate College, the candidate must meet the following Harrah Hotel College 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, education, and foreign language. At least 27 credits must be at the 700-level.
2. 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.
3. Required courses:
 - 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 716 - Principles and Practices in Hotel Management
 - or
 - HOA 717 - Principles and Practices in Convention and Meetings Management
 - or
 - HOA 718 - Principles of Casino and Gaming Management
 - or

HOA 720 - Principles and Practices in Food Service Management

HOA 730 - Statistical Analysis for Hospitality and Leisure Services

HOA 731 - Operational Analysis in Hospitality Management

HOA 735 - Research Methodology

HOA 740 - Marketing Systems

HOA 760 - Research Seminar in Hotel Administration or

HOA 761 - Research Seminar in Food Service Administration

or

HOA 763 - Research Seminar In Casino and Gaming Management

or

HOA 764 - Research Seminar in Convention Management

Graduate-level courses approved by the student's chair or graduate advisor: 3-9 credits*

HOA 788 - Professional Paper

or

HOA 789 - Thesis

A student may opt to write a thesis (six credits) or a professional paper (three credits and a three credit supporting course). The thesis option is designed for students with a research orientation. An oral examination is required of all candidates for the M.S. degree.

***Supporting Course Requirements: 3-9 credits.**

Students may substitute a supporting course for HOA 760, 761, 762, 763, or 777 if they are taking a concentration of courses in one area such as human resource management, accounting, or marketing and they have the approval of their academic advisor. Supporting courses should meet the student's degree objectives. These courses may be taken in any graduate department in the university and must be approved by the student's chair.

Course Descriptions

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 Same as HMD 401

Note: Credit at the 500 level normally 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 Same as HMD 402 Note: Credit at the 500-level normally 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 Same as HMD 407 Note: Credit at the 500 level normally 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 Same as HMD 408 Note: Credit at the 500-level normally requires additional work.

HOA 510 - Hospitality Security and the Preservation of Assets

Credits 3
Analysis of contemporary security concerns specific to hospitality and gaming industries; encompassing lodging, food and beverage, clubs, retailing, and medical service. Includes development of security department organizations, fraud analysis, risk management, asset protection, loss prevention, disaster control, crisis communication, industrial safety, casino security liaison, and emergency action planning. Formerly HOA 610 Same as HMD 410 Note: Credit at the 500-level normally 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 Note: Credit at the 500 level normally 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 Note: Credit at the 500-level normally 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 Note: Credit at the 500-level normally 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 Same as GAM 426

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 Note: 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 Same as GAM 437 Note: Credit at the 500 level normally requires additional work.

HOA 540 - Casino Marketing
Credits 3

Marketing concepts as applied to the gaming industry. Formerly HOA 640 Same as GAM 440 Note: Credit at the 500 level normally 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 Same as GAM 442, SOC 442,

SOC 642 Note: Credit at the 500 and 600 level normally requires additional work

HOA 549 - International Tourism

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 649 Note: Credit at the 500 level normally 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 Same as HMD 453 Note: Credit at the 500 level normally 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 Same as HMD 455 Note: Credit at the 500 level normally 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 Same as HMD 456 Note: Credit at the 500 level normally 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 Note: Credit at the 500 level normally requires additional work.

HOA 570 - Quantative 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 Same as GAM 470 Note: Credit at the 500 level normally 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 Note: 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 Note: Credit at the 500 level usually requires additional work.

HOA 587 - Association Management

Credits 3

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 and Leisure Services

Credits 3

Introduction to the use of statistical techniques with emphasis on applications for the hospitality and leisure service industries.

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 735 - Research Methodology

Credits 3

Examination of research methods including: the scientific method, literature review, sampling, statistics, research design, and analytical technique. **Prerequisites:** Graduate standing and HOA 730. If you are following the thesis option, you must take 3 credits of HOA 799 in conjunction with this class.

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 evaluative 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note:

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. Note: May be repeated to a maximum of six credits. **Prerequisites:** Consent of instructor and graduate program director.

HOA 788 - Professional Paper

Credits 3

Professional paper whose contents serve as the focus for the final oral examination. Formerly HOA 791 Note: 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 Note: A total of six credits are required for the thesis.

HOA 790 - Special Topics in Hospitality Management

Credits 1 – 6

Eclectic approach to special problem areas of current interest employing individual and group research. Note: 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 Note: 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 Note: 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 Note: 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 601 - Operational Analysis in Hospitality Management

Credits 3

The following courses were not found in the supplied content but, were listed in program requirements. Please review and provide us, if possible, with the correct information. Formerly MHA 731

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 605 - Financial Analysis for 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 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 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. Formerly MHA 616

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 618

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 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 the Casino/Gaming Industry

Credits 3

Analyzing marketing and promotional strategies utilized by the casino industry and developing understanding of valuable techniques that facilitate managerial decision making concerning these strategies. Formerly MHA 742

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 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

The following courses were not found in the supplied content but, were listed in program requirements. Please review and provide us, if possible, with the correct information. Formerly MHA 753

MHA 654 - Risk Management: Safety and Security in Hospitality and Tourism

Credits 3

The following courses were not found in the supplied content but, were listed in program requirements. Please review and provide us, if possible, with the correct information. Formerly MHA 754

MHA 655 - Meeting and Convention Management

Credits 3

The following courses were not found in the supplied content but, were listed in program requirements. Please review and provide us, if possible, with the correct information. 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 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-Consultation/Research on Selected Topic

Credits 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 Note: May be repeated multiple times.

MHA 691 - Professional Paper

Credits 3

Professional paper whose contents serve as the focus for the final oral examination. Formerly MHA 791

MHA 706 - 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.

MHA 726 - 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.

MHA 746 - The 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.

MHA 747 - Intercultural communication in the Hospitality Industry

Credits 3

Explores communication, culture, and social dynamics internal and external to hospitality organizations within an international context.

Recreation & Sport Management

Chair

McLean, Daniel

(2007), Professor; B.A., Sacramento State College; M.A., Brigham Young University; Ph.D., Kansas State University.

Graduate Coordinator

Busser, James A.

(1987), Professor; B.S., Illinois State University; M.S., Ph.D., University of Illinois at Champaign-Urbana.

Graduate Faculty

Busser, James A.

(1987), Professor; B.S., Illinois State University; M.S., Ph.D., University of Illinois at Champaign-Urbana.

Carruthers, Cynthia P.

(1990), Professor; B.S., M.S., Ph.D., University of Illinois at Champaign-Urbana.

Giannoulakis, Chrysostomos

(2008), Assistant Professor; B.S., Aristotle University of Thessaloniki; M.Ed., Springfield College; Ph.D., University of Northern Colorado.

Livengood, Jennifer

(2007), Assistant Professor; B.A., Southern Illinois University; MSW, Ph.D., University of Illinois at Champaign-Urbana.

McLean, Daniel

(2007), Professor; B.A., Sacramento State College; M.A., Brigham Young University; Ph.D., Kansas State University.

Stahura, Kurt

(2004), Associate Professor; B.A., University of Wisconsin; M. A., Ph.D., University of Minnesota.

The Department of Recreation and Sport Management offers a program of study that provides students with the theory, knowledge, and skills needed to assume management positions in sport and leisure service agencies. A variety of organizations across the country have a need for qualified management personnel who also possess a

theoretical background in sport and leisure behavior. Successful management of sport and leisure services is predicated on acquiring three areas of knowledge. First is a theoretical foundation in sport and leisure behavior. This background enables the manager to understand the motivations, expectations, and satisfactions of the participant and spectator and to incorporate these into events, programs, and services. Second is an understanding of management techniques specific to the delivery of sport and leisure service. These include a thorough background in the management, development, and operation of sport and leisure service delivery systems, facilities, programs, and ancillary services. Third is a research/analysis component that is designed to prepare the student to evaluate programs and services as well as analyze and interpret complex information. This component prepares the student for data based management applications and problem-solving techniques.

Sport and Leisure Service Management M.S.

An important aspect of the degree program is the opportunity to develop a specialization in either Sport or Leisure Service Management. Specializations provide additional focused study that enable students to prepare for a career in a specific programmatic or organizational setting. The majority of the courses included in a specialization are selected in consultation with the student's advisor. Specialization courses may be selected to expand the student's knowledge in law and liability in sport and leisure, athletic administration, finance, budgeting, marketing, leisure needs assessment, program design and operation, program evaluation, and other courses pertinent to the specialized management of sport and leisure. Opportunities for individualized study of special topics and internships in sport and leisure service agencies also further individualize the student's preparation.

Successfully completing the program of study will result in conferral of the Master of Science degree in Sport and Leisure Service Management. Graduates of this program find employment with organizations providing professional, collegiate, and amateur sports; community, therapeutic, outdoor, and commercial recreation; and health and fitness services.

Admission Requirements

Applicants must submit the following information for admission:

1. Application for admission.
2. Submission of two copies of official transcripts from all institutions attended after high school. One copy should be sent directly to the Graduate College and the other to the Harrah Hotel Graduate Studies Office.

3. A baccalaureate degree from an accredited institution with a minimum overall GPA of 2.76 on a 4.00 scale or 3.00 in the last two years of study.
4. Graduate Record Examination (GRE) scores. A minimum score of 450 in each of the GRE sections of verbal and quantitative is required.
5. Two letters of recommendation. These letters should be from faculty members who know the applicant's academic capabilities and can predict success in graduate school.
6. A one-page statement describing the applicant's goals and reasons for seeking graduate education in sport and leisure service management.
7. Current resumé.
8. A bachelor's degree with a major or minor in Leisure Studies, Recreation, Sport Management or a closely related field. Applicants not meeting this criterion may be required to take prescribed deficiency undergraduate courses.

International applicants: if English is not the applicant's native language, and his/her baccalaureate degree was not from a school where English was the language of instruction, the applicant must complete one of the language tests listed below with the minimum score indicated or above:

TOEFL

Paper-based Test – 550 (minimum writing score – 58)

Computer-based Test – 213 (minimum writing score – 24)

Internet-based Test – 80 (minimum writing score – 21, minimum speaking score – 21)

Michigan Test – 85% (minimum scores: 40 out of 50 speaking; 40 out of 50 writing)

IELTS – 7

Applicants who do not meet the above minimum GPA or GRE test score requirements may be admitted as Provisional Graduate Students.

Transfer of Credit

Nine credits of relevant graduate courses taken prior to admission to the Sport and Leisure Service Management degree may be accepted toward the student's official graduate program. These credits may be from another accredited university or from UNLV. However, the hours transferred must be: 1) graduate level, 2) received a grade of A or B (B- is not acceptable), 3) appropriate to the proposed degree, and 4) approved by the student's advisor and the Graduate Coordinator, and, 5) taken within the allowable six-year time limit on all course work. Additional graduate credits may be petitioned for transfer.

Progression of Graduate Program

Prior to completing 16 hours of graduate credit, the student in consultation with his/her advisor, will file a Graduate

Degree Program. This program is a contract that specifies the courses necessary to obtain the master's degree. Any changes in the official program must be made on a Change of Degree Program form, approved by the advisor and graduate coordinator, and submitted to the Graduate College.

Concurrent with the filing of the Official Graduate Program, the student's Graduate Examination Committee is appointed. The committee consists of three graduate faculty members from the department and one outside graduate faculty member (usually from an appropriate cognate area in which the student has taken classes). Generally, the advisor serves as the committee chair.

Each master's degree candidate must complete a thesis or professional paper. In either case, a prospectus will be presented to the Examination Committee. After approval of the prospectus, the student may proceed with the project. Upon completion of the thesis or paper, the written document is provided to the Examination Committee members at least two weeks prior to an oral presentation and defense of the work before this group. Both the thesis and professional paper should adhere to the American Psychological Association's current Publication Manual regarding writing style and format. Copies of the completed thesis must also meet the Graduate College guidelines and be deposited according to published timelines. Professional papers must be bound and copies provided to the department office and advisor.

Course Descriptions

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. Note: 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. Note: 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. Note: 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./MBA, 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.

John Valery White, Dean

(2007) B.A., Southern University; J.D., Yale Law School.

Associate Deans

Johnson, Steve R.

(2001) E. L. Weigand Professor and Associate Dean for Faculty Development and Research; B.A., St. Francis College; J.D., New York University School of Law.

Kindred, Kay P.

(1999) Professor and Associate Dean for Academic Affairs; B.A., Duke University; J.D., Columbia University School of Law.

Thronson, David B.

(2002) Professor and Associate Dean for Clinical Studies; B.S., University of Kansas; J.D., Harvard Law School.

Associate Dean and Graduate Coordinator

Smith, Christine

(1998) Associate Dean for Administration and Student Affairs; B.S., Arizona State University; M.Ed., Northern Arizona University.

Faculty

Anderson, Rachel J.

(2007), Associate Professor; M.A., Stanford University; J.D., University of California, Berkeley.

Bayer, Peter

(2001) Lawyering Process Professor; B.A., Hamilton College; J.D., New York University School of Law; M.A., New York University; LL.M., Harvard University.

Berkheiser, Mary E.

(1998) Professor; B.A., J.D., James E. Rogers College of Law, University of Arizona.

Birdsong, Bret C.

(2000) Professor; B.A., Princeton University; J.D., University of California, Hastings College of the Law.

Blakesley, Christopher L.

(2002) Cobeaga Law Firm Professor; B.A., University of Utah; M.A., Fletcher School of Law and Diplomacy, Tufts University; J.D., University of Utah; LL.M. and J.S.D., Columbia University.

Brown, Richard,

(1998) Professor Emeritus; B.A., University of California, Berkeley; J.D., Indiana University School of Law; M.L.L., University of Washington.

Cammett, Ann

(2008) Associate Professor; B.F.A., School of Visual Arts; J.D., City University of New York School of Law; LL.M., Georgetown University Law Center.

Correales, Robert I.

(1998) Assistant Professor; B.A., University of North Texas; J.D., University of Kansas School of Law; LL.M., Georgetown University Law Center.

Geer, Martin

(2001) Externship Director; B.A., University of Michigan; J.D., Wayne State University; LL.M., Columbia University.

Gordon, Sara G.

(2007) Lawyering Process Professor; B.A., Pitzer College; J.D., James E. Rogers College of Law, University of Arizona.

Grant, Douglas L.

(1999) Cord Foundation Professor; B.A., University of Iowa; J.D., University of Colorado School of Law.

Henderson, Lynne

(2000) Professor; B.A., J.D., Stanford University.

Kruse, Katherine R.

(2002) Professor; B.A., Oberlin College; M.A., University of Wisconsin-Madison; J.D., University of Wisconsin Law School.

LaFrance, Mary

(1999) William S. Boyd Professor; A.B., Bryn Mawr College; M.A., J.D., Duke University.

Lazos, Sylvia

(2003) Justice Myron Leavitt Professor; B.A., St. Mary's University; M.A., St. Mary's University; J.D., University of Michigan Law School.

Mader, George

(2007), Lawyering Process Professor, B.A., St. John's University; M.A., University of Wisconsin; J.D., University of Minnesota.

McAffee, Thomas B.

(1998) Professor; B.S., University of Utah; J.D., University of Utah College of Law.

Mootz III, Francis J.

(2008) William S. Boyd Professor of Law, B.A., University of Notre Dame; A.M., Duke University; J.D., Duke University.

Morgan, Richard J.

(1997) Dean Emeritus; B.A., University of California, Berkeley; J.D., University of California, Los Angeles.

Nathanson, Rebecca
 (2003) 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.

Patterson, Raymond W.
 (2005) Associate Director of the Saltman Center for Conflict Resolution; B.S., State University of New York, Stonybrook; M.A., Adelphi University; J.D., Yeshiva University, Benjamin Cardozo School of Law.

Pindell, Ngai L.,
 (2000) Professor; A.B., Duke University; J.D., Harvard University Law School.

Pollman, Terrill
 (1998) Ralph Denton Professor and Director of the Lawyering Process Program; B.A., J.D., University of Arizona. Rapoport, Nancy (2007) Gordon and Silver, Ltd. Professor/B.A., Rice University; J.D. Stanford University.

Price, Jeanne
 (2008), Associate Professor and Director of the Wiener-Rogers Law Library and Associate Professor, B.A., Yale University; J.D., University of Texas; M.L.S., University of Maryland.

Rapoport, Nancy
 (2007) Gordon and Silver, Ltd. Professor; B.A., Rice University; J.D. Stanford University.

Reilly, Peter
 (2006) Associate Professor, Director of Negotiation Training, Saltman Center for Conflict Resolution; A.B., Princeton University; J.D. Harvard Law School; LL.M., Georgetown University Law Center.

Rowley, Keith A.
 (2001) William S. Boyd Professor; B.A., Baylor University; J.D., University of Texas Law School.

Saucedo, Leticia
 (2003) Professor; A.B., Bryn Mawr College; J.D. Harvard Law School.

Scharf, Rebecca
 (2004) Lawyering Process Professor; B.A., Brandeis University; J.D. Harvard Law School.

Shoben, Elaine
 (2005) Judge Jack and Lulu Lehman Professor, A.B., Barnard College; J.D., University of California Hastings College of the Law.

Stempel, Jeffrey W.
 (1999) Doris and Theodore B. Lee Professor; B.A., University of Minnesota; J.D., Yale Law School.

Sternlight, Jean R.
 (2003) Michael and Sonya Saltman Professor and Director of the Saltman Center for Conflict Resolution; B.A., Swarthmore College; J.D., Harvard Law School.

Tanenhau, David.
 (2002) James E. Rogers Professor of History and Law, Associate Professor, Joint Appointment with Department

of History; B.A., Grinnell College; M.A. and Ph.D., University of Chicago.

Whitney, Jean M.

(1999) Ralph Denton Lawyering Process Professor and Associate Director of the Lawyering Process Program; B.A. and M.Ed., Minnesota; J.D., William Mitchell College of Law.

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, and in the final year, in our clinical and externship programs, we provide students with the opportunity of a substantial lawyering experience under close supervision.

Admission Requirements and Selecting Applicants

The Boyd School of Law seeks to enroll an accomplished and diverse group of women and men who will contribute to the enrichment of the school's educational program and to the community and the profession after graduation. We seek students who have demonstrated significant accomplishments in their lives, for example by achieving distinguished academic records as undergraduate or graduate students, by engaging successfully in important and demanding careers, by providing significant service to their communities or by meeting challenges associated with the applicant's race, ethnicity, gender, economic status, or disability. We believe that the law school can and should have a student body that is both academically well-qualified and diverse. The presence in the school of students who have diverse backgrounds, attitudes, and interests contributes to the breadth and quality of the classroom and non-classroom dialogue that is a critical element to legal education.

In assessing applicants, the Admissions Committee looks to:

1. **Academic Capability.** To assess an applicant's undergraduate academic capability, the committee considers such factors as the applicant's undergraduate GPA, the trend of college grades, the difficulty of the applicant's course of undergraduate study, the quality and grading pattern of the undergraduate institution, the extent of work or other activities undertaken while in college, the date of the undergraduate degree, graduate studies, and performance on the Law School Admissions Test.
2. **Nonacademic Accomplishments.** The committee will consider evidence of significant accomplishments in extracurricular activities, employment, military service, and community service.
3. **Individual Background.** The committee will consider the applicant's state of residency, cultural, ethnic, racial and socioeconomic background, and evidence of significant handicaps overcome by the applicant. The committee will also consider any history of criminality or academic misconduct.

Applicants must:

1. have earned an undergraduate degree from an accredited four-year college or university;
2. have taken the Law School Admissions Test (LSAT). The test is given in June, October, December, and February. In order to ensure full consideration of their application, applicants are encouraged to take the LSAT by December 2009 (although it is possible to take the February 2010 LSAT and complete an application in a timely manner). Applicants must have a currently reportable LSAT score in their Law School Data Assembly Service (LSDAS) file. For guidance, see current LSAT/LSDAS Information Book. LSAT registration materials and receive further information from the Law School Admission Council at www.lsac.org or at (215) 968-1001;
3. register for and maintain an up-to-date file with the Law School Data Assembly Service. It is the responsibility of applicants to ensure that an official transcript from each institution they have attended is sent by that institution to LSDAS. Please do not have transcripts sent directly to the Boyd School of Law.

For additional information regarding admissions and law school programs, please call the Dean for Student Advancement or Director of Admissions at (702) 895-3671.

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)

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 33 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 College of Business MBA program, respectively. For information on MBA program application procedures, interested individuals should contact the College of Business-MBA Program at (702) 895-3655 or go to their website. 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: 33 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 - Intellectual Property I
LAW 622 - Introduction to Gaming Law
LAW 626 - Business Organizations I
LAW 628 - Payment Systems
LAW 629 - Intellectual Property II
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 - Principles of Public Administration
PUA 704 - Seminar in Fiscal Administration
PUA 708 - Seminar in Public Personnel Administration
SW 676 - 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 - Law and the American Indian
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 Educational Psychology & Juris Doctor Dual Ph.D./J.D. 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. 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.

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.

Curriculum: Educational Psychology Ph.D.

- 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: Higher Education Leadership Ph.D.

- Required Core Courses 18
- Research Courses 12
- Higher Education Electives 9
- Dissertation in Higher Education Leadership 15

Curriculum: Special Education Ph.D.

- 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

Juris Doctor J.D.

Degree Requirements

To receive the Juris Doctor degree, students admitted to the law school must complete at least 89 units of credit with an overall cumulative average of at least 2.30, complete all of the specific requirements for graduation, including the community service and writing requirements and all required courses.

For additional information regarding admissions and law school programs, please call the Dean for Student Advancement or Director of Admissions at (702) 895-3671. Complete admission and degree requirement explanations may also be found on the Boyd School of Law website.

Course Descriptions

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 5

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. **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 2 – 3

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. **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 2 – 3

Acquisitions of property interest, estates in land and future interests, and landlord tenant. **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. Note:: 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. 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 fictional 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 - Intellectual Property I

Credits 2 – 4

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.

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 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 - Law and the American Indian

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.

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 - Intellectual Property II

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.

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. Note:: 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. Note:: 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. Note:: 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. Note:: 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 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. Note: 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 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 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, Publicity & Defamation

Credits 3

Discusses constitutional right to privacy, the four privacy torts, contrast between right of privacy and right against defamation, and right of publicity. **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. Note:: 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. Note:: 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.

Note:: 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. Note:: 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. Note:: 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. Note:: 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. Note:: 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 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. Note:: 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 eight Master of Arts degrees along with an M.F.A. in creative writing. Doctoral programs in Anthropology, English, History, Political Science, Psychology and Sociology 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, Dean

(1976) Professor; A.B., Davidson College; M.A., Ph.D., Emory University; Ph.D., University of Michigan Ann Arbor.

Anthropology

Chair

Martin, Debra

(2006), Professor; B.S., Cleveland State University, M.A., Ph.D., University of Massachusetts, Amherst.

Graduate Coordinator

Benyshek, Daniel

(2001), Associate Professor; B.A. University of Colorado, Denver; M.A., Ph.D., Arizona State University.

Graduate Faculty

Atici, Levent

(2007), Assistant Professor; B.A., M.A., Ankara University; M.A., Ph.D., Harvard University.

Bao, Jiemin

(1997), Associate Professor; B.A., Laotian University; M.S., Ph.D., University of California, Berkeley.

Frink, Liam

(2005), Associate Professor, B.A., M.A., Ph.D., University of Wisconsin, Madison.

Gray, Peter

(2005), Assistant Professor, B.A., University of California Los Angeles; M.A., Ph.D., Harvard University.

Harry, Karen

(2001), Associate Professor; B.A., Texas A&M; M.A., Ph.D., University of Arizona.

Jankowiak, William

(1991), Professor; B.A., State University of New York; B.A., Ph.D., University of California, Santa Barbara.

Lienard, Pierre

(2008), Assistant Professor; Ph.D., Universite Libre de Bruxelles.

Roth, Barbara

(2002), Associate Professor; B.S. University of Colorado; M.A., Ph.D., University of Arizona.

Simmons, Alan H.

(1993), Professor; B.A., University of Colorado, Boulder; M.A., University of Toronto; M.A., Ph.D., Southern Methodist University.

Spencer, Rainier

(1997), Professor; B.A., University of Texas at El Paso; M.A., Columbia University; Ph.D., Emory University.

Swank, Heidi

(2005), Assistant Professor; B.A., Hamline University; M.A., Ph.D., Northwestern University.

Thompson, Jennifer L.

(1998), Associate Professor; B.A., Queens University; M.A., Trent University; Ph.D., Durham University.

Desert Research Institute Associate Graduate Faculty

Beck, Colleen

(1994), Research Professor; B.A., M.A., Ph.D., University of California, Berkeley.

Buck, Paul

(1994), Associate Research Professor; B.A., California State University, Chico; M.A., Ph.D., University of Washington.

Rhode, David

(2000), Research Professor; B.A., University of California, Davis; M.A., Ph.D., University of Washington.

Johnson, William

(1994), Director; B.A., Florida International University; M.A., University of South Florida; Ph.D., University of Florida.

Professors Emeriti

Brooks, Sheilagh T.

(1966-1992) Emeritus Distinguished Professor; B.A., M.A., Ph.D., University of California, Berkeley.

Knack, Martha

(1977-2008), Distinguished Professor; B.A., M.A., Ph.D., University of Michigan.

Lyneis, Margaret M.

(1976-2001), Emeritus Professor; B.A., University of Washington; M.A., Ph.D., University of California, Los Angeles.

Miranda, Malvin
(1976-2009), Professor; B.A., California State University,
Long Beach; M.S., Ph.D., University of California, Los
Angeles.

Palmer, Gary B.
(1973-2005), Emeritus Professor; B.S., Hamline
University; M.S., Ph.D., University of Minnesota.

Swetnam, John J.
(1973-2008), Professor; B.A., University of Pittsburgh;
Ph.D., University of Pennsylvania.

Urioste, George L.
(1974-2009), Professor; B.A., St. Peter Claver College;
Ph.D., Loyola University; B.D., Boston College; M.A.,
Ph.D., Cornell University.

Warren, Claude N.
(1969-1997), Emeritus Professor; B.A., M.A., University
of Washington; Ph.D., University of California, Los
Angeles.

The Department of Anthropology offers studies leading to the Master of Arts and Doctor of Philosophy degrees. At UNLV, students may concentrate in socio-cultural anthropology, physical anthropology, linguistics, or archaeology. Generally, students may participate in field and laboratory research in archaeology, field and laboratory research in physical anthropology, and field experience in various areas of ethnology and museum studies. The faculty offer particular expertise in the nearby Great Basin, Mojave, and Desert Southwest, as well as MesoAmerica, South America, the Arctic, China, South Asia, and the Near East/Mediterranean region.

The Patricia Anne Rocchio Memorial and the Edwards and Olswang Scholarships are awarded to anthropology students each year. Graduate assistantships are available, with responsibilities relating to archaeology, physical anthropology, cultural anthropology, and linguistic anthropology. The Desert Research Institute and the Marjorie Barrick Museum of Natural History provide some part-time employment opportunities for qualified students. Various assistantships to aid in faculty research also are available periodically.

Anthropology M.A.

Admission Requirements

1. 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.
2. 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.

3. Applicants must also submit an explicit letter of intent.
4. GRE scores are required for admission to both the M.A. and Ph.D. programs. 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.

Degree Requirements

In addition to the general requirements established by the Graduate College, the candidate must meet the following degree requirements:

1. The student must earn a minimum of 33 semester hours of credit at the graduate level.
2. Eighteen of the 33 units presented for the degree must be courses with the prefix ANTH at the 600-level or above, including ANTH 700A, 700B, 703, and 704. ANTH 700A, 700B, 703 and 704 may be taken only after the student's acceptance into the Graduate College. ANTH 700A and 700B are one-credit, pass/fail seminar courses that require a 'pass' grade for students to continue in the program. ANTH 703 and 704 are core seminar courses that 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, and any student receiving more than one C+ or lower will be separated from the graduate program.
3. The 18 credits in anthropology must also include ANTH 790.
4. Up to three credits each of ANTH 701 and ANTH 799 can be applied toward the degree but may be taken only after acceptance into the Graduate College.
5. At least three 700- level courses, beyond the core courses (ANTH 703 and ANTH 704) and excluding ANTH 701 and ANTH 799, must be taken.
6. The student must demonstrate a competence in statistics by passing an appropriate advanced class, such as ANTH 770.
7. 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.
8. 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.
9. 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.

10. The student must submit and successfully defend their thesis. This defense is open to the public.

Anthropology Ph.D.

Admission Requirements

1. Applicants must meet the general admission requirements established by the Graduate College. 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 subdisciplines of the field.
2. The applicant must have at least a 3.50 (A=4.00) grade point average for previous graduate work.
3. 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.
4. 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.
5. 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.
6. The applicant must submit GRE scores and transcripts; foreign applicants must submit TOEFL scores.

Degree Requirements

Requirements for Students Entering with a Master's Degree:

1. A minimum of 42 credits of approved work beyond the M.A. must be completed. This will not include remedial courses.
2. 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, and any student receiving more than one C+ or lower will be separated from the graduate program.
3. Within the 42 credits, there will be a cap of three credits each of independent study and directed readings and 12 hours for the dissertation.
4. Of the minimum 42 credits, 18 must be in anthropology graduate seminars. Eight of these must be in ANTH 700A, 700B, 703 and 704, unless the applicant can successfully petition out of the core (703 and 704) courses. ANTH 700A and 700B are one-credit, pass/fail seminar courses that require a 'pass' grade for students to continue in the program. ANTH 703 and 704 are

core seminar courses that must be passed with a grade of B- or better.

5. Three of the 18 credit hours must be ANTH 790.
6. The student must demonstrate a competence in statistics by passing an appropriate advanced class, such as ANTH 770.
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 outside the department will be assigned by the Graduate College. Another outside member may be added at the department's discretion.
8. The student must pass a comprehensive examination with a grade of B- or better in the method and theory of one subdiscipline, in one topical area, and in one regional area. Students who fail in any portion of the exam may retake that portion the following year. A second failure results in termination from the doctoral program.
9. 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.
10. 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.
11. The student must submit and successfully defend their dissertation. This defense is open to the public.

Requirements for Students Entering with a Bachelor's Degree:

1. A minimum of 75 credits of approved work beyond the M.A. must be completed. This will not include remedial courses.
2. 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, and any student receiving more than one C+ or lower will be separated from the graduate program.
3. Within the 75 credits, there will be a cap of three credits each of independent study and directed readings and 12 hours for the dissertation.
4. Of the minimum 75 credits, 30 must be in anthropology graduate seminars. Eight of these must be in ANTH 700A, 700B, 703 and 704, unless the applicant can successfully petition out of the core (703 and 704) courses.
5. Three of the 30 credit hours must be ANTH 790.

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 outside the department will be assigned by the Graduate College. Another outside member may be added at the department's discretion.
7. The student must demonstrate a competence in statistics by passing an appropriate advanced class, such as ANTH 770.
8. In consultation with the student, and as approved by the student's committee, the student will complete one of three options for an MA in Anthropology en route to receiving their PhD: a) write a publishable professional paper, b) submit a competitive external grant, or c) 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.
9. The student must pass a comprehensive examination with a grade of B- or better in the method and theory of one subdiscipline, in one topical area, and in one regional area. Students who fail in any portion of the exam may retake that portion the following year. A second failure results in termination from the doctoral program.
10. 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.
11. 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.
12. The student must submit and successfully defend their dissertation. This defense is open to the public.

Course Requirements

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.

ANTH 600B - Indians of the Great Basin

Credits 3

Investigation of the ethnography, ethnohistory, and contemporary conditions of Indian groups in Nevada and

Utah. Same as ANTH 400B Note: Credit at the 600 level normally requires additional work.

ANTH 600D - American Indian Mythology and Religion Credits 3

American Indian oral literature and ethnography of ceremonial and ritual practices interpreted in terms of their meaning to traditional cultural settings. Note: Credit at the 600 level normally requires additional work.

ANTH 602 - Comparative Social Organization Credits 3

Analyzes and compares ways people have organized themselves into social groups, ranging in size from families to castes. Relates social structure to other aspects of culture and surveys alternative anthropological theories to explain these relationships. Focuses on non-Western societies. Same as ANTH 402 Note: Credit at the 600 level normally requires additional work.

ANTH 606 - Comparative Political Organization Credits 3

Political processes in societies from hunter-gathers to nation-states studied, including leader selection, community decision-making, internal order maintenance, and external relations. Place of political structures within culture and potentials and limitations of various political organizations discussed, along with historical and theoretical implications. Same as ANTH 406 Note: Credit at the 600 level normally 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. Same as ANTH 409 Note: Credit at the 600 level normally requires additional work.

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. Same as ANTH 420 Note: Credit at the 600 level normally 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
Note: Credit at the 600 level normally requires additional work.

ANTH 623 - The Anthropology of Aging

Credits 3

A contemporary look at aging, dying, death, and grief in other cultures and societies. The class focuses on appropriate behaviors, alternative roles/resources, and the strategies for coping with the processes of aging, dying, death and grief in several Latin American, Asian, and African cultures. Same as ANTH 423 Note: Credit at the 600 level normally requires additional work.

ANTH 625 - Applied Anthropology

Credits 3

Application of anthropological concepts and techniques to the resolution of practical human problems, international and domestic intercultural program planning and management; economic development design; crisis resolutions; cultural, linguistic, and archaeological salvage; ethnic advocacy and legal representation, among other areas. Structured characteristics of careers in agency settings and opportunities for advancement of scholarly knowledge. Same as ANTH 425 Note: Credit at the 600 level normally 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. Same as ANTH 426 Note: Credit at the 600 level normally requires additional work.

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. Same as ANTH 430 Note: Credit at the 600 level normally 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. Same as ANTH 433 Note: Credit at the 600 level normally requires additional work.

ANTH 634 - Ethnohistory

Credits 3

Methodological study applying anthropological concepts to early written sources and recorded oral tradition. Cross-cultural comparisons. Same as ANTH 434 Note: Credit at the 600 level normally requires additional work.

ANTH 636 - History of Anthropology

Credits 3

History of the intellectual developments within anthropology. Same as ANTH 436 Note: Credit at the 600 level normally requires additional work.

ANTH 637 - Ethnological Method and Theory

Credits 3

Survey of the development of theory and method in modern ethnology. Same as ANTH 437 Note: Credit at the 600 level normally 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. Same as ANTH 438 Note: Credit at the 600 level normally 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. Same as ANTH 440B Note: Credit at the 600 level normally 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. Same as ANTH 440C Note: Credit at the 600 level normally 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. Same as ANTH 441B Note: Credit at the 600 level normally 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. Same as ANTH 443 Note: Credit at the 600 level normally requires additional work.

ANTH 644 - Bioarchaeology

Credits 3

Method and theory for the study of human remains in archaeological contexts. Formerly ANTH 673 Same as ANTH 444 Note: Credit at the 600 level normally 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. Same as ANTH 449A Note: Credit at the 600 level normally 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. Same as ANTH 449B Note: Credit at the 600 level normally requires additional work.

ANTH 649C - 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. Note: Credit at the 600 level normally requires additional work. **Prerequisites:**

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. Same as ANTH 454 Note: Credit at the 600 level normally 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. Same as ANTH 455 Note: Credit at the 600 level normally 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. Note: Credit at the 600 level normally requires additional work. **Prerequisites:** Consent of instructor

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. Same as ANTH 462 Note: Credit at the 600 level normally requires additional work.

ANTH 663 - Advanced Human Osteology

Credits 4

In-depth studies of human skeletal remains for forensic and bioarchaeological purposes. Same as ANTH 463 Note: Credit at the 600 level normally 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. Same as ANTH 464 Note: Credit at the 600 level normally requires additional work.

ANTH 665 - Human Growth and Aging

Credits 3

Processes of growth, maturation, development, and aging. Features of embryology and placentation, birth and breast-feeding, life history parameters, menarche and menopause, and physical age changes during later years. Evolutionary aspects of growth and determinants of developmental variation resulting from genetic, environmental, and socio-cultural factors. Same as ANTH 465 Note: Credit at the 600 level normally 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.

Same as ANTH 467 Note: Credit at the 600 level normally 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. Same as ANTH 469

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. Same as ANTH 471

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. Note: Credit at the 600 level normally requires additional work. **Prerequisites:** Equivalent of 3 credit hours in Physical Anthropology, Biology, or Psychology.

ANTH 679 - Selected Topics in Physical Anthropology

Credits 3

Topic to be selected by instructor. Reflects student needs. Same as ANTH 479

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. Same as ANTH 485 Note: Credit at the 600 level normally 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. Same as ANTH 486

ANTH 689 - Selected Topics in Linguistics

Credits 3

Topic to be selected by instructor. Reflects student needs. Same as ANTH 489

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 3

Note: (May be repeated to a maximum of six credits.)

ANTH 703 - Core Seminar I: Ethnology and Linguistics

Credits 3

Advanced treatment of the major concepts and theories in ethnology and linguistics. Research methods and standards of scholarly presentation emphasized. **Prerequisites:** Graduate standing.

ANTH 704 - Core Seminar II: Archaeology and Physical Anthropology

Credits 3

Advanced treatment of the data, concepts, and theories in archaeology and physical anthropology. **Prerequisites:** Graduate standing.

ANTH 730 - Seminar in Linguistic Anthropology

Credits 3

Holistic approach to linguistic anthropology to examine how language reflects the culturally relative structure of experience, determines ethnic identities and social structures, tells about prehistoric connections between cultures, and influences the evolution of the human brain. **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. Note: Topics to be announced. May be repeated to a maximum of 12 credits. **Prerequisites:** Consent of instructor.

ANTH 742 - Seminar on Material and Cognitive Approaches to Culture Change

Credits 3

Survey of complementary theoretical approaches to culture change, with a stress on materialist (Marxist, New Functionalist, classical economic, and ecological) and cognitive (structuralist, psychological) theoretical systems. Integration of approaches in analyzing culture change in a particular ethnographic situation.

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. Note: 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 745 - Seminar on Native American Ethnohistory

Credits 3

Controversial issues in the ethnohistory of Native North America used to explore the relationship between data and interpretation. Student research projects develop specific skills in accessing public and rare documents to aid solution of ethnographic problems. **Prerequisites:** ANTH 432 and ANTH 301/ETS 301, or HIST 438 and HIST 439, or written consent of instructor.

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 747 - Seminar in Western North America

Credits 3

Note: (May be repeated to a maximum of six credits.)

ANTH 748 - Seminar on Current Research in the Great Basin

Credits 3

State of current research on several problems currently being raised by Great Basin data in all subdisciplines of anthropology explored in order to investigate the relationship between data, generalization, abstraction, and theoretical interpretation. Note: Attendance at the Great Basin Anthropological Conference require **Prerequisites:** ANTH 423 or ANTH 623.

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

Note: May be repeated to a maximum of six credits.

ANTH 752 - Seminar in Historic Archaeology: Current Trends

Credits 3

Examines current developments in historical and anthropological method and theory as applicable to the field.

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: ANTH 703 or ANTH 704.

ANTH 754 - Archaeology and Paleocology 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. 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 759 - Peopling of the Americas

Credits 3

Reviews current debates surrounding human colonization of North and South America during the Pleistocene, drawing upon archaeological, biological, and linguistic evidence. Note: Field trip. **Prerequisites:** Graduate standing or consent of instructor.

ANTH 761 - Seminar on Current Thought in Physical Anthropology

Credits 3

Topics to be announced. Note: 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 775 - Native Americans and the Law

Credits 3

Anthropological, historical, and legal study of the position of Native American tribes and persons, including federal policy, jurisdictional disputes, and current issues. Same as (LAW 625) **Prerequisites:** Graduate standing.

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

Note: 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

Note: 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 – 3

Note: May be repeated to a maximum of six credits.

English

Chair

Harp, Richard L.

(1975), Professor; B.A., Ph.D., University of Kansas; M.A., Boston College.

Graduate Coordinator

Nagelhout, Edwin

(2005), Assistant Professor; B.A., California State University-Fullerton; M.A., Ph.D., Purdue University.

Graduate Faculty

Becker-Leckrone, Megan

(1999), Associate Professor; B.A., Bryn Mawr College; M.A., Ph.D., University of California, Irvine.

Bowers, John M.

(1987), Professor; B.A., Duke University; M.A., Ph.D., University of Virginia; Master of Philosophy, Oxford University.

Brown, Stephen

(2002), Associate Professor; B.A., University of California, Santa Barbara, M.A., Ph.D., University of South Florida.

Campbell, Felicia Florine

(1962), Professor; B.S., M.S., University of Wisconsin, Madison; Ph.D., United States International University, San Diego.

Decker, Christopher

(2004), Assistant Professor; B.A., Yale University; Ph.D., Cambridge University.

Engberg, Norma J.

(1969), Associate Professor; B.A., George Washington University; M.A., University of Florida; Ph.D., University of Pennsylvania.

Erwin, Timothy

(1990), Associate Professor; A.B., Marquette University; M.A., Ph.D., University of Chicago.

Gajowski, Evelyn

(1991), Associate Professor; B.A., Cleveland State University; M.A., Ph.D., Case Western Reserve University.

Hafen, Jane

(1993), Associate Professor; B.A., M.A., Brigham Young University; Ph.D., University of Nevada, Las Vegas.

Harter, Carol

(1995), Professor and President Emerita, University of Nevada, Las Vegas; B.A., M.A., Ph.D., SUNY Binghamton.

Hickey, Dave

(1991), Professor; B.A., Texas Christian University; M.A., University of Texas.

Irsfeld, John H.

(1969), Professor; B.A., M.A., Ph.D., University of Texas.

Jablonski, Jeffrey

(2000), Associate Professor; B.A., M.A., State University of New York College at Buffalo; Ph.D., Purdue.

Keelan, Claudia

(1996), Professor; B.A., Humboldt State University; M.F.A., University of Iowa.

LoLordo, Vincent Nicholas

(2002), Assistant Professor; B.A., M.A., Dalhousie University; Ph.D., Harvard University.

Mays, Kelly J.

(2001), Associate Professor; B.A., Emory University; Ph.D., Stanford University.

McCullough, Joseph B.

(1969), Distinguished Professor; B. Ed., Gonzaga University; M.A., Ph.D., Ohio University.

Moore, Sharon

(1999), Assistant Professor; B.A., M.A., Roosevelt University; Ph.D., University of Georgia.

Perez, Vincent

(1999), Associate Professor; B.A., University of California, Santa Cruz; M.A., Ph.D., Stanford University.

Rosenberg, Beth Carole

(1994), Associate Professor; B.A., Douglass College, Rutgers University; M.S., Ph.D., New York University.

Rusche, Philip

(1998), Associate Professor; B.A., M.A., Emory University; M.A., M.Phil., Ph.D., Yale University.

Staggers, Julie

(2006), Assistant Professor; B.A., University of Washington; M.A., Ph.D., Purdue University.

Stevens, Anne

(2004), Assistant Professor; B.A., University of Chicago; M.A., Ph.D., New York University.

Stitt, J. Michael

(1981), Associate Professor; B.A., Pennsylvania State University; M.A., Ph.D., Indiana University.

Unger, Douglas
 (1991), Professor; B.A., University of Chicago; M.F.A.,
 University of Iowa.

Tillery, Denise
 (2004), Associate Professor; B.A., Ph.D., University of
 New Mexico; M.A., University of North Carolina.

Unrue, Darlene H.
 (1972), Distinguished Professor; B.A., M.A., Marshall
 University; Ph.D., Ohio State University.

Unrue, John C.
 (1970), Professor; B.A., M.A., Marshall University;
 Ph.D., Ohio State University.

Whitney, Charles
 (1988), Professor; B.A., San Francisco State College;
 Ph.D., City University of New York.

Wiley, Richard
 (1989), Professor; B.A., University of Puget Sound; M.A.,
 Sophia University; M.F.A., University of Iowa.

Professors Emeriti

Adams, Charles L., Jr.
 (1960-1996), Emeritus Professor; B.A., Michigan State
 University; M.A., University of Illinois; Ph.D., University
 of Oregon.

Coburn, W. Leon
 (1969), Associate Professor; B.A., University of New
 Mexico; M.A., Ph.D., University of California, Davis.

Dodge, Robert K.
 (1970), Professor; B.A., Rice University; M.A., Ph.D.,
 University of Texas.

Geuder, Patricia
 (1966-1989), Emeritus Associate Professor; B.A., M.E.,
 University of Nevada, Reno; Ph.D., University of New
 Mexico.

Hazen, James F.
 (1971), Professor; B.A., Princeton University; M.S.,
 Ph.D., University of Wisconsin.

Weinstein, Mark A.
 (1970), Distinguished Professor; B.A., Cornell
 University; M.A., Ph.D., Yale University.

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 primarily course work at the graduate level in English and American literature or in language studies. A thesis is optional but is recommended for all students. 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.

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 in writing pedagogy to the end of a teaching career at the university, college, or community college level; and to provide for the student 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 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 entirely focused on literary study; there is no language study or writing option in it. 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 of the selected chronological period and approved by the graduate committee, or a special topic approved by the graduate committee. All subsequent course work (which includes a minor in a field or fields related to English) is devoted to developing a high degree of professional competence and knowledge in the three chosen areas of specialization. Such knowledge is tested in qualifying examinations 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 in 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 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. Admission is for holders of an MA or MFA. Differences in the requirements for admission and degree requirements between the two Ph.D. programs are indicated below.

Creative Writing M.F.A.

Admission Requirements

Applicants for the M.F.A. in Creative Writing must submit 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 creative manuscript as judged by the Creative Writing faculty. Also, candidates must send a letter of application to the Graduate Committee that

includes a statement of purpose and reasons why the applicant wants to study creative writing at the University of Nevada, Las Vegas.

A candidate must also meet the requirements of the Graduate College, including holding a B.A., B.S., or A.B. degree from an accredited college or university with an undergraduate GPA of 2.75 or better. Applicants must send two official sets of transcripts from all colleges or universities attended; one set goes to the Graduate College and one directly to the English department. In addition, two letters of recommendation must 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. But a candidate must score in the 50th percentile rank or higher on the Verbal portion of the General Test of the Graduate Record Examination to be eligible for admission.

Degree Requirements

The M.F.A. in Creative Writing requires 54 credit hours of course work, independent study, and the writing of a creative dissertation in either fiction or poetry. Course work should include 12 credits of ENG 705 - Creative Writing, composed of nine credits in the chosen genre of concentration (either poetry or fiction) and three credits in another genre. Students will be expected to take at least nine credits of 700-level courses in World Literature, and at least nine credits of 600- or 700-level graduate courses offered by the Department of English. Also required are six credits of Independent Study: three credits for the completion of a significant translation of superior quality from a language other than English, and three 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. In addition, six credits are required for the international focus of the M.F.A. (see below) and 12 credits for the completion of a book length creative dissertation in either poetry or fiction.

International Emphasis

The strong international emphasis of the M.F.A. in Creative Writing requires all students to spend at least one semester 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. Applicants with strong experience and demonstrable study and residency in a non-English speaking country and with significant foreign language skills may be granted credit at the time of admission for the study abroad requirement at the discretion of the Creative Writing faculty and of the Graduate College.

Creative Thesis

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. An oral qualifying exam will be given at the end of the student's third semester of full-time study, or upon completion of 24-27 credits toward the degree. This exam will entail a one- to two-hour review of the student's progress in his or her creative and scholarly work, conducted by the faculty in the student's genre. Successful completion of the oral qualifying examination is a prerequisite for beginning work on the creative thesis. 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. English M.A.

Admission Requirements

A candidate must meet the requirements of the Graduate College, including holding an undergraduate GPA of 2.75 or better. Applicants must send two official sets of transcripts from all universities attended; one set goes to the Graduate College and one directly to the English Department. Also, two letters of recommendation must be sent directly to the department. The department also requires a minimum of 21 credits in English courses that are above Freshman Composition level. Also, students must score in the 50th percentile rank or higher on the Verbal portion of the General Test and in the 25th percentile rank or higher on the Literature in English Subject Test of the Graduate Record Examination. Candidates for admission need not have been English majors but should show on the transcript a generally superior performance in English courses.

Degree Requirements

These vary somewhat according to the option chosen (see below), but in general the M.A. program involves 30-33 credit hours of course work, demonstrated competency in the reading of one foreign language, and successful performance on a comprehensive examination. Students who did not take History of the English Language (ENG 415 or 615) as an undergraduate must include it in their graduate degree program. A master's thesis, which carries six credits, is optional. Nine credits of the course work must be in literary periods before 1800, nine credits in literary periods after 1800, and the remainder of the credits may be in any period or area.

ENG 791 - College Teaching in Language and Literature, is required of new graduate assistants, does not count toward fulfilling the credit hours requirement.

Options

Students may emphasize literary study or language study in their degree programs. The exact requirements for these

options or tracks within the M.A. program are stated in a document obtainable from the Director of Graduate Study.

Thesis

A master's thesis, which carries six credits, is optional but recommended for all M.A. candidates. 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. 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. A statement showing in more detail the specific degree requirements of the M.A. program is available from the Director of Graduate Study.

English Ph.D.

Admission Requirements

1. Possession of an M.A. in English from an 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. Applicants must send two sets of official transcripts from all universities attended; one set goes to the Graduate College and one directly to the English department. 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.
2. Candidates must score in the 75th percentile rank or higher on the Verbal portion of the General Test and in the 50th percentile rank or higher on 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. 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.

Degree Requirements

1. A total of 30 credits of approved course work beyond the M.A. degree, as follows:
 - a. Twenty-four credits in English with grades of B or better, including: ENG 703 - Survey of Literary Criticism and Theory, required for students who

have not taken an equivalent graduate-level course. Of the required 24 credits, at least 18 credits must be taken at the 700-level. Students writing a Creative Dissertation must take 24 credits in non-Creative Writing English classes. This may include: ENG 729 - Forms of Fiction or Poetry, to be taken only once.

- b. Six credits in an approved minor at the graduate level outside the department or in Composition Studies, with grades of B or better.
2. Reading knowledge of two foreign languages or proficiency in one. Students in the Creative Writing track demonstrate a reading knowledge of one foreign language.
3. Superior performance 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 either 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.
4. Doctoral dissertation involving original thought and superior scholarship on a topic or author in British, American, or third-world literature in English. The Creative Dissertation involves an original work of fiction or poetry of high quality and substantial length. (18 credits).

The total credits for course work and dissertation are a minimum of 48 beyond the M.A. degree. Courses taken to make up deficiencies or to fulfill the requirement in foreign languages (unless the minor is in a foreign literature) do not count in this total.

A brochure outlining in more detail the admission and degree requirements of the Ph.D. program, including the foreign language requirement, the possible areas of specialization, the minor, the Qualifying Examination, and a representative course of study, is available from the Director of Graduate Study.

Rogers' Fellowships

The Department of English awards, each year, the Rogers' Fellowships for select students with a Bachelor's degree interested in the Ph.D. literature program. These Fellows will receive stipends of \$25,000 for each of five years and will have all tuition and fees paid.

Course Descriptions

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.

ENG 605B - Research and Editing

ENG 605C - Writing For Publication

Note: The undergraduate courses above, 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 these courses may be found in the Undergraduate Catalog under the corresponding 400 number.

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

ENG 609A - Visual Rhetoric

ENG 609B - Rhetoric and the Environment

ENG 611A - Advanced Linguistics

Note: The undergraduate courses above, 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 these courses may be found in the Undergraduate Catalog under the corresponding 400 number.

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.

ENG 612C - Seminar in Language and Cognition

ENG 614A - History of the English Language

ENG 614B - Development of American English

ENG 614C - Old English II

ENG 615B - Old English I

ENG 616A - Special Problems in English

ENG 616C - Special Problems in English

ENG 620A - Survey of Literary Criticism

ENG 625A - Themes of Literature

ENG 626A - Religion and Literature

Note: The undergraduate courses above, 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 these courses may be found in the Undergraduate Catalog under the corresponding 400 number.

ENG 626B - Mythology

Study of mythologies, such as Greek, Roman, and Native American, in cultural context.

ENG 627B - Gender and Literature

ENG 629A - Early American Humor

ENG 629B - Modern American Humor

ENG 629C - Literature of the American West

ENG 630A - Major Figures in British Literature

ENG 632A - Chaucer

ENG 634A - Shakespeare: Tragedies

ENG 634B - Shakespeare: Comedies and Histories

ENG 635A - Milton

ENG 636A - Major Figures in American Literature

ENG 640A - Medieval English Literature

ENG 640B - Gender and Early Literature

Note: The undergraduate courses above, 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 these courses may be found in the Undergraduate Catalog under the corresponding 400 number.

ENG 641A - The Renaissance

Credits 3

Study of English literature of the sixteenth century, primarily Elizabethan.

ENG 641B - Gender and Renaissance Literature

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 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.

ENG 644B - The Romantic Poets

ENG 645B - Victorian Poetry

ENG 645C - Nineteenth-Century Prose Writers

ENG 646A - Modern British Literature
ENG 646B - Gender and Modern British Literature
Note: The undergraduate courses above, 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 these courses may be found in the Undergraduate Catalog under the corresponding 400 number.

ENG 652A - American Literature, 1620-1800

Credits 3

Study of American writing through 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 660 - The American Short Story
ENG 660A - Heroic Epic
ENG 661A - The Study of Poetry and Poetics
ENG 662A - Modern British Poetry
ENG 662C - Modern American Poetry
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

Note: The undergraduate courses above, 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 these courses may be found in the Undergraduate Catalog under the corresponding 400 number.

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
ENG 671B - Contemporary English Novel
ENG 673A - The Early American Novel
ENG 673B - The Modern American Novel
ENG 673C - The Contemporary American Novel

Note: The undergraduate courses above, 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 these courses may be found in the Undergraduate Catalog under the corresponding 400 number.

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 678A - Folklore and Literature
ENG 678B - American Folklore
ENG 678C - Special Topics in Folklore
ENG 684A - The Bible as Literature
ENG 685A - Asian Literature
ENG 686A - Postcolonial Theory

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. Same as ENG 486B Note: Courses at the 600 level normally require additional work. **Prerequisites:** ENG 101 and ENG 102

ENG 691B - Environmental Literature
ENG 694A - Native American Literature
ENG 695A - Early African-American Literature
ENG 695B - Modern African-American Literature
Note: The undergraduate courses above, 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 these courses may be found in the Undergraduate Catalog under the corresponding 400 number.

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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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.

Note: 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. Note: Normally limited to three credits on the M.A. program of study.

ENG 797 - Thesis

Credits 3 – 6

Note: 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. Note: 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. Note: May be repeated but only a maximum of 18 credits maybe applied towards degree. **Prerequisites:** Consent of graduate director.

Foreign Languages

Chair

Buechler, Ralph

(1989), Associate Professor; B.A., Washington University; M.A., M.A.S., University of Illinois; Ph.D., University of Wisconsin, Madison.

Graduate Coordinator

Bellver, Catherine G.

(1972), Distinguished Professor; B.A., Northwestern University; M.A., Ph.D., University of California, Berkeley.

Graduate Faculty

Arteaga, Deborah L.

(1992), Associate Professor; B.A., Wichita State University; M.A., University of Colorado, Boulder; Ph.D., University of Washington.

Bao, Ying

(2008), Assistant Professor; B.A., Jiangxi University; M.A., Nanjing Normal University; M.A., Ohio State University; Ph.D., Ohio State University.

Galindo, Jorge

(1997), Associate Professor; Licenciatura, Letras Españolas Instituto Tecnológico de Monterrey; M.A., New Mexico State University; Ph.D., University of Kansas.

Harp, Margaret R.

(1989), Associate Professor; B.A., Newcomb College; M.A., Ph.D., Tulane University.

Natale, Giuseppe

(2000), Associate Professor; Laurea in Lettere, Università de Torino; M.A., Ph.D., University of Washington.

Rico, Alicia

(2001), Associate Professor; B.A., Universidad de Alicante, Spain; M.A., Ph.D. University of Kansas.

Takemaru, Naoko

(2003), Assistant Professor; M.A., Michigan State; M.A., Monterey Institute of International Studies; Ph.D., Claremont Graduate University.

Professors Emeriti

Koester, Rudolf

(1969-2000), Emeritus Professor; B.A., M.A., University of California, Los Angeles; Ph.D., Harvard University.

Schmiedel, Donald

(1965-1999), Emeritus Associate Professor; B.A., Kent State University; M.A., Ph.D., University of Southern California.

The focus on language, technology, 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 could include 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.

Foreign Languages M.A.

Admission Requirements

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 and official transcripts of all college-level work. Two letters of recommendation, a statement of goals, and official transcripts of all college-level work should be sent directly to the department.

Spanish, Hispanic Studies M.A.

The M.A. program in Spanish is flexible, allowing students to concentrate on culture, language, literature, translation, and technology. The program aims to meet the needs of students interested in teaching and other professions. 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.

Requirements

The 33-hour program includes 12 hours of required graduate course work in Spanish encompassing four areas:

FOL 714 - Current Issues in Second Language Acquisition
SPAN 720 - Textual Analysis
SPAN 709 - Writing Workshop
SPAN 760 - Technology-Enhanced Foreign Language Education

These courses must be taken in the department. A variety of courses in language, linguistics, literature, culture, and technology will be offered to allow students to complete their degree.

Students may apply a maximum of 9 credits at the 600 level to their graduate program. Upon departmental approval, students may take 6 of their total credits at the graduate level outside the department in an area relevant to their chosen concentration. Students choosing the written examination option must include: SPAN 798 in their program, while those following the project option must take six credits of SPAN 797.

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.

Final Examination

Written Examination

Students will take a written Master's 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 seven areas of concentration: Peninsular culture, Latin American culture, linguistics, Peninsular literature, Latin American literature, technology in the classroom, 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.

Final Project Option

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.

Course Descriptions

Foreign Language

FOL 614 - Romance Linguistics
FOL 699 - Application of Linguistics to the Teaching of Languages

Note: 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. Note: Credit at the 600-level requires additional work.

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. Note: 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. Note: 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. Note: 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.

French

FRE 621 - Literature of the Middle Ages
FRE 632 - Renaissance Literature
FRE 650 - History of the French Language
FRE 653 - French Institutions and Cultural Life
FRE 654 - The Arts in France
FRE 655 - The Culture of Paris
FRE 690 - Selected Topics of French Literature

Note: 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. Note: 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
Note: 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. Note: 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. Note: Taught in French.

FREN 742 - The Evolution of French Theater

Credits 3 Study of the development of the dramatic arts in France. Note: Taught in French.

FREN 743 - The Evolution of French Poetry

Credits 3 Evolution of poetry, from the troubadours to contemporary French poets. Note: Taught in French.

FREN 755 - Studies in Francophone Culture

Credits 3 Presentation of French speaking cultures outside metropolitan France. Note: 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. Note: May be repeated for up to six credits. Taught in French.

FREN 797 - Thesis

Credits 3 – 6

Italian

ITAL 603 - Advanced Reading Proficiency in Italian

ITAL 662 - Dante's Divine Comedy

Spanish

SPAN 620 - Technology-Enhanced Foreign Language Education

SPAN 650 - Advanced Topics in Hispanic Literature

SPAN 655 - Methods of Teaching Spanish Native Speakers

SPAN 661 - Spanish Golden Age Drama

SPAN 662 - The Works of Cervantes

SPAN 665 - Spanish Romanticism and Costumbrismo

SPAN 666 - Spanish Realism

SPAN 667 - The Generation of '98

SPAN 668 - Modern and Contemporary Spanish Literature

SPAN 671 - Modernism

SPAN 672 - Spanish-American Novel

SPAN 673 - Spanish-American Short Story

SPAN 690 - Selected Topics

SPAN 696 - Spanish Dialectology

Note: 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. Note: Credit at the 600-level requires additional work.

SPAN 703 - Guided Reading and Research

Credits 1 – 3 Note:

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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: May be repeated with different topics. Taught in Spanish.

SPAN 760 - Current Applications of Technology in Foreign Languages

Credits 3 In-depth knowledge of recent trends in foreign language technologies. In addition, students develop advanced proficiency level in the design of electronic teaching materials for the foreign language classroom. Note: 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. Note:

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. Note: 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. Note: 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. Note: 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. Note:

May not be repeated for credit. Grading Grade will be pass/fail based on the results of the examination. **Prerequisites:** Consent of graduate coordinator.

History

Chair

Wrobel, David

(1999), Professor; B.A., University of Kent; M.A., Ph.D., Ohio University.

Graduate Coordinator

Holland, David

(2005), Assistant Professor; B.A., Brigham Young University; M.A., Ph.D., Stanford University.

Graduate Faculty

Bauer, William

(2009), Associate Professor; B.A., University of Notre Dame; M.A., Ph.D., University of Oklahoma

Bell, Andrew J. E.

(1994), Associate Professor; B.A., Oxford University; Ph.D., Stanford University.

Brown, Gregory

(1998), Professor; B.A., University of Pennsylvania; M.A., Ph.D., Columbia University.

Casas, Maria Raquel

(1997), Associate Professor; B.A., California State University at Fresno; M.A., Ph.D., Yale University.

Chung, Sue Fawn

(1975), Associate Professor; B.A., University of California, Los Angeles; M.A., Harvard University; Ph.D., University of California, Berkeley.

Coughtry, Jay A.

(1982), Associate Professor; B.A., State University of New York, Geneseo; M.A., Ph.D., University of Wisconsin. Curry John,

(2006) Assistant Professor; B.A. Northwestern University; M.A., Ph.D., Ohio State University.

Dawson, Kevin

(2007) Assistant Professor; B.A. California State University, Fullerton; M.A. California State University, Fullerton; Ph.D. University of South Carolina

Fry, Joseph A.

(1975), Distinguished Professor; B.A., Davis and Elkins College; M.A., Ph.D., University of Virginia.

Gallo, Marcia M.

(2009), Assistant Professor; B.A. Holy Names University; Ph.D., City University of New York Graduate School

Goodwin, Joanne

(1991), Associate Professor; B.F.A., University of Washington; M.A., Sarah Lawrence College; Ph.D., University of Michigan.

Hise, Greg

(2008), Professor; B.A. University of California, Berkeley; Ph.D., University of California, Berkeley

Kirk, Andrew Glenn

(1999), Professor; B.A., M.A., University of Colorado-Denver; Ph.D., University of New Mexico.

Loader, Colin T.

(1986), Professor; A.B., Bates College; M.A., University of Rhode Island; Ph.D., University of California, Los Angeles.

Moehring, Eugene P.

(1976), Professor; B.A., M.A., Queens College; Ph.D., City University of New York.

Nelson, Elizabeth White

(1996), Associate Professor; A.B., Bryn Mawr College; M.A., Ph.D., Yale University.

Robinson, Todd

(2007), Assistant Professor; B.A., American University; M.M., Cambridge College; M.A., University of Massachusetts; Ph.D., University of Michigan.

Tanenhaus, David

(1997), Associate Professor; B.A., Grinnell College; M.A., Ph.D., University of Chicago.

Tusan, Michelle

(2001), Associate Professor; B.A., University of California, Davis; M.A., Ph.D., University of California, Berkeley.

Ward, Janet

(2002), Associate Professor; B.A., University of London; M.A., University of Pennsylvania; Ph.D., University of Virginia.

Werth, Paul

(1997), Associate Professor; B.A., Knox College; Ph.D., University of Michigan.

Whitney, Elspeth

(1990), Associate Professor B.A., San Francisco State University; Ph.D., City University of New York.

Wright, Thomas C.

(1972), Professor; B.A., Pomona College; M.A., Ph.D., University of California, Berkeley.

Professors Emeriti

Burns, Paul E.

(1963-1995), Emeritus Professor; B.A., Miami University (Ohio); M.A., Certificate in Russian Studies, Ph.D., Indiana University.

Davenport, Robert W.

(1964-1998), Emeritus Associate Professor; B.A., Pomona College; M.A., University of California, Berkeley; M.S., Ph.D., University of California, Los Angeles.

Finocchiaro, Maurice A.

(1968), Distinguished Professor; B.S., Massachusetts Institute of Technology; Ph.D., University of California, Berkeley.

Mattson, Vernon E.

(1969), Associate Professor; B.A., Tennessee Temple College; M.A., North Texas State University; Ph.D., University of Kansas.

The graduate programs in history are designed to achieve a balance between teaching and research. Advanced study in the areas of European, American, Latin American, Asian, and Public History has prepared many of our graduates for teaching positions in area schools and community colleges. Our course offerings, which train students in methodology, writing, editing, and critical analysis, as well as other skills, have qualified many of our graduates for admission to doctoral programs, law schools, government positions, and jobs in historical societies, museums, and international business firms.

History Ph.D.

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 length combining imagination and excellence.

Admission Requirements

1. B.A. or equivalent from an accredited institution with a minimum GPA of 3.00, with at least a 3.30 in history courses, or an M.A. or equivalent from an accredited institution with a minimum GPA of 3.50. Applicants must have completed significant course work at the upperdivision or graduate level in either American history (and preferably the American West) or the (cultural/ intellectual) history of the United States or Europe.
2. Competitive scores on verbal, quantitative and analytical measures of the Graduate Record Examination.
3. Recommendations from three former instructors addressing the applicant's preparedness for doctoral level work in United States History and European History.
4. A statement of purpose in which the applicant describes specific interests in and approaches to United States History and 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.
5. 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 and European History.

Degree Requirements

A minimum of 57 credits beyond the B.A. or 39 credits beyond the M.A. in History or closely related disciplines. In either case, credits must be distributed as follows:

1a. United States History

Major Field

- 9 credits in historiography: HIST 740a, e, f, g, h
- 9 credits of colloquium: HIST 724, 726, 730; three credits of which must be in a non-U.S. field: HIST 728, 732, 734, 736, 738
- 8 credits of seminar: HIST 725, 727, 729, 731, 733

Minor Field

- Twelve credits of history work in a non-U.S. field of history. Six of these credits may be taken in an appropriate academic discipline other than history. Courses outside the field of history must be approved by a student's academic advisor.
 - All students are required to take the one credit HIST 710 - The Professional Historian. Students must choose one of the following areas of concentration:
- **North American West:** 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. As part of the minimum number of credits listed above, course work above must include: HIST 740f, 740g or 740h; 726, 727
- **North American Culture and Society:** 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. As part of the minimum number of credits listed above, course work above must include: HIST 740g, 740h, 724, 725

1b. European History: Culture and Society

Major Field

- 9 credits of historiography: HIST 740 b, g, h
- 9 credits of colloquium: HIST 728, 732, 734, 736, 738; three credits of which must be in a non European field HIST 724, 726, 730
- 8 credits of seminar: HIST 729, 731, 733, 735, 737, 739

Minor Field

- Twelve credits of history work in non-European field of history. Six of these credits may be taken in an appropriate academic discipline other than history. Courses outside the field of history must be approved by a student's academic advisor.
- All students are required to take the one credit HIST 710 - The Professional Historian
- 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. 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. **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.

3a. United States History Track

Major Field

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 or four questions.

Area of Concentration

North American West, or North American Culture and Society: this field requires students to master the literature in their area of specialization. A student writes on two or four questions.

Theory and Methods

A student chooses Applied Theory, Comparative History, or Public History. A student writes on two of four questions.

Minor Field

A student chooses one of the following fields: European History, World History, or Public History. A student may only be examined in Public History in one field. A student writes on two of four questions.

3b. European History

Major Field

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 or four questions.

Area of Concentration

European Culture and Society: this field requires students to master the literature in their area of specialization. A student writes on two or four questions.

Theory and Methods

A student chooses one of the following fields: Applied Theory, Public History, or Comparative History. A student writes on two of four questions.

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 two or four questions.

4. Prospectus Colloquium

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 thesis credits. The prospectus must be accepted for the student to have ABD status in the History Department.

5. Dissertation

A dissertation of substantial length and quality containing original research and interpretation on a topic in the field of either Northern American West, North American Culture and Society, or European Culture and Society. Students must take a minimum of twelve dissertation credits.

6. Dissertation Defense

An oral defense of the dissertation.

7. Credit Hour Requirements

A total of at least 69 credits (this includes 12 credits of dissertation credits) beyond the B.A. or at least 51 credits beyond the M.A. (this includes 12 credits of thesis credits).

History M.A.

The Department of History offers a Master of Arts degree with concentrations 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.

Admission Requirements

Students must meet the following requirements for admission to graduate standing.

1. An overall undergraduate grade point average of at least 3.00.

2. A grade point average of at least 3.30 in history courses.
3. Recommendations from two former instructors addressing the applicant's preparedness for graduate work in history.
4. A minimum of 18 credits in history.
5. Submission of a writing sample, preferably a research paper, representative of undergraduate work.
6. 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.

Degree Requirements

There are three tracks for the master's degree in history. Each requires that a student's advisor and graduate committee approve all course work plans. A field outside of history may be presented as part of a student's program. A grade of C or below will not 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. A minimum of 16 credit hours of course work must be at the 700-level. 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. The specific track requirements are as follows:

1. Thesis Track

A minimum of thirty-two graduate credits, including six credits of thesis. In addition to the major area of study, the student must complete nine credits in a minor area.

A maximum of nine credits at the 600-level can count toward degree requirements. 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-six credits. Students prepare reading lists of approximately 20-30 books (or an appropriate number of articles can be included in place of some 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 along does not constitute preparation for comprehensive exams. In addition, an oral defense of the thesis will be required. The Public History minor requires an additional three credits of internship, HIST 795.

Course Requirements

Three credits of historiography, six credits of colloquium, and four credits of seminar.

- HIST 710 - The Professional Historian (1 credit)
- HIST 724 - Colloquium in American Cultural/Intellectual History

HIST 726 - Colloquium in American Western 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 740 - Historiography
 or
 HIST 725 - Seminar in American Cultural/Intellectual History
 HIST 727 - Research Seminar in American Western History
 HIST 729 - Research Seminar in European Cultural/Intellectual History
 HIST 731 - Research Seminar in American 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

2. Non-Thesis Track

A minimum of thirty-five graduate credits. In addition to a minimum of twenty five credits in the major area of study, students must complete nine credits in a minor area (the Public History minor requires an additional three credits of internship).

Students must also successfully complete a written examination in the major and minor areas of study. This may be taken at the completion of twenty-four credits, and must be taken no later than the completion of thirty-five credits. Students prepare reading lists of approximately 20-30 books for each of their two fields within the major area of study and for their minor area in conjunction with their advisory committee members. The lists are based on scholarly works read in coursework, but substantial additional reading is required. Course work alone does not constitute preparation for comprehensive exams.

Course Requirements

Three credits of historiography, six credits of colloquium, and four credits of seminar.

HIST 710 - The Professional Historian (1 credit)
 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 740 - Historiography
 or
 HIST 725 - Seminar in American Cultural/Intellectual History

HIST 727 - Research Seminar in American Western History
 HIST 729 - Research Seminar in European Cultural/Intellectual History
 HIST 731 - Research Seminar in American 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
 Up to 6-credits may be taken at the 600-level.

3. Teachers' Track

Minimum of thirty-two graduate credits (thirty-four for Public History option). Coursework is divided into three required fields:

Field 1: Historical Content : 13 credits of History focused on a Geographic Region: Europe, United States or World (Latin America, Asia, Middle East, Atlantic World). A minimum of 7 credits must be taken at the 700-level, including:

HIST 710 - The Professional Historian (1 credit), 3 credits of Historiography:
 HIST 740 - Historiography
 and three credits of colloquium:
 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
 Up to 6-credits may be taken at the 600-level.

Field 2: Teaching Materials : 10 credits of 700-level coursework in History with a coordinated topical, thematic, or comparative focus, a three-credit colloquium: HIST 724, HIST 726, HIST 728, HIST 730, HIST 732, HIST 734, HIST 736, or HIST 749

four-credit seminar:

HIST 725 - Seminar in American Cultural/Intellectual History
 HIST 727 - Research Seminar in American Western History
 HIST 729 - Research Seminar in European Cultural/Intellectual History
 HIST 731 - Research Seminar in American History
 HIST 733 - Research Seminar in European History
 HIST 735 - Research Seminar in Modern Asian History
 or HIST 737 - Research Seminar in Modern Latin American History
 and three-credits
 HIST 790A - Materials for Teaching History(Capstone Project)

A field in Public History can count as the Teaching Materials field and would include HIST 749 - Colloquium in Public History and any two additional Public History courses (at least one of which must be at the 700-level, and the HIST 7XX: Thesis Equivalent course.

Field 3: Educational Methods: 9 credits* of coursework in the College of Education divided into the following subfields:

Educational Foundations: Select one

CIG 660 - Multicultural Education
CIS 617 - Topics Secondary Education
CIL 610 - Content Area Literacy

Curriculum Development: Select one

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 Technology: Select one

CIT 602 - Technology Applications Secondary Curriculum
CIT 607 - Technology as Educational Mindtools
CIT 609 - Internet for Educators
CIT 620 - Integrating Technology in Teaching and Learning

*Matriculants with extensive background in one of these 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 these 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.

Students must successfully complete a written examination in Field 1: Historical Content. This may be taken at the completion of 25 credits, and must be taken no later than the completion of 32 credits (34 for those doing Public History as the Teaching Field). 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 approximately 20-30 books prepared in conjunction with the members of the advisory committee.

Course Descriptions

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 619A - Britain to 1750
HIST 619B - Britain from 1750
HIST 620 - Revolution 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 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

Note: 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. Note: May be repeated to a maximum of 9 credits.

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.

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.

HIST 634 - Role of Cities in American History
 HIST 634A - European Urban History.
 HIST 635A - Early Modern Intellectual History
 HIST 635B - Modern Intellectual History
 HIST 636 - Nazi Holocaust from the American Perspective
 HIST 637 - Family History
 HIST 638A - Ethnohistory of Native Americans to 1851
 HIST 638B - Ethnohistory of Native Americans Since 1851
 HIST 640 - History of Plains Indians
 HIST 641 - American Environmental History
 HIST 643 - Comparative Environmental History
 HIST 643A - Historic Preservation
 HIST 644 - Latinos in the American West
 HIST 645 - Cultural History of Modern Russia
 HIST 646 - History of the Russian Film
 HIST 647 - Revolutionary Russia 1905-1921
 HIST 648 - Asian American History

Note: 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 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.

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.

HIST 649C - Topics in Japanese History

Credits 3 In-depth study of selected aspects of Japanese history. Note: May be repeated to a maximum of 6 credits.

HIST 652A - Popular Culture in Nineteenth-Century America
 HIST 652B - Popular Culture in Twentieth-Century America
 HIST 653 - Women in Politics

Note: 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 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.

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.

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 678 - Middle-Eastern Studies
 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

Note: 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 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.

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 - Study in History Abroad

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 692B - Women In Modern European History

HIST 695 - Special Topics in Gender and History

HIST 696 - Philosophy of History

HIST 698 - Advanced Historical Studies

Note: 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 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: May be repeated to a maximum of nine credits. **Prerequisites:** Graduate standing.

HIST 729 - Research Seminar in European Cultural/Intellectual History

Credits 4

Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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.

Note: 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. Note: 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. Note: 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-diplomatic. f) American West. g) United States (cultural/intellectual). h) European (cultural/intellectual). Note: 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

Note: 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. Note: May be repeated to a maximum of twelve credits, unless otherwise approved by the department. **Prerequisites:** Graduate standing.

HIST 790 - Thesis

Credits 3 – 6

Note:

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

Note: 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. Note: May be repeated to a maximum of six credits. **Prerequisites:** Graduate standing.

Political Science

Chair

Tuman, John

(2001), Associate Professor; B.A., University of California, Berkeley; M.A., University of Chicago; Ph.D., University of California, Los Angeles.

Graduate Coordinators

M.A. Ethics and Policy Studies

Fott, David S.

(1992), Associate Professor; B.A., Vanderbilt University; A.M., Ph.D., Harvard University.

M.A. and Ph.D. Political Science

Pirages, Dennis

(2009), Professor; B.A., State University of Iowa; Ph.D., Stanford University .

Graduate Faculty

Bowers, Michael

(1984), Professor; B.A., Cameron University; M.A., Ph.D., University of Arizona.

Damore, David

(2000), Associate Professor; B.A., University of California, San Diego; M.A., University of Georgia; Ph.D., University of California, Davis.

Fernandez, Kenneth

(2004), Assistant Professor; B.A., University of California, San Diego; M.A., Ph.D., University of California, Riverside.

Howard, Tiffany

(2008), Assistant Professor; B.A., Florida A&M University; M.A., Ph.D., University of Michigan, Ann Arbor.

Jelen, Ted G.

(1997), Professor; B.A., Knox College; M.A., Ph.D., Ohio State University.

Kuenzi, Michele

(2004), Assistant Professor; B.A., Grinnell College; M.P.A., Wayne State University; Ph.D., Michigan State University.

Lutz, Mark

(2006), Assistant Professor; B.A., University of Chicago; M.A., Ph.D., University of Toronto.

Parker, Steven

(1979), Associate Professor; B.A., Assumption College; M.A., Ph.D., State University of New York, Albany.

Strand, Jonathan

(2001), Associate Professor; B.S., University of Wisconsin-Platteville; M.A., Ph.D., University of Nebraska, Lincoln.

Tamadonfar, Mehran

(1987), Associate Professor; B.A., M.A., University of Tehran; Ph.D., University of Colorado, Boulder.

Titus, Dina

(1977), Professor; B.A., College of William and Mary; M.A., University of Georgia; Ph.D., Florida State University.

Wood, Rebecca

(2008), Assistant Professor; B.A., James Madison College at Michigan State University; Ph.D., Michigan State University.

Professors Emeriti

Bigler, Robert M.

(1970-1998), Emeritus Professor; Diploma, University of Budapest; M.A., Ph.D., University of California, Berkeley.

Dixon, Brock

(1971-1985), Emeritus Vice President; B.A., Pacific College; M.A., University of Oregon; Ph.D., University of Southern California.

Jones, Gary L.

(1969-2002), Emeritus Associate Professor; A.A., Long Beach City College; B.A., Long Beach State College; Ph.D., Claremont Graduate School.

Simich, Jerry L.

(1973-2008), Emeritus Associate Professor; B.A., California State University, Long Beach; Ph.D., University of California, Santa Barbara.

Tuttle, Andrew C.

(1968-2000), Emeritus Associate Professor; B.A., M.A., University of California, Santa Barbara; Ph.D., Claremont Graduate School.

The Department of Political Science offers two master's degree programs: one in Political Science, the other in Ethics and Policy Studies, and a doctoral degree program in Political Science. A description of each follows. Programs are flexible, and students may take advantage of individualized instruction.

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 programs that provide an appropriate degree of specialization in two of the fields of political science with supporting studies in others.

Students can pursue graduate education in the areas of comparative politics, international relations, American politics, political theory, public law, and public policy. 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.

Political Science M.A.

Admission Requirements

Admission to the department is competitive, with only the strongest applicants gaining admission in any given year. Applicants must complete the Graduate College online application. 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 provider
3. A personal statement explaining why you want to enter the master's program.
4. Applicants for admission must have earned:
 - a. A baccalaureate from an accredited college or university.
 - b. A grade point average of at least 3.00.
 - c. Satisfactory scores on the GRE General Test. Minimum scores are 500 on each of the verbal and 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.

*Note:: Official transcripts must be submitted to the Graduate College.

Degree Requirements

The candidate for the Master of Arts degree must complete a minimum of 30 credit hours under Plan A or 33 credit hours under Plan B in courses designated for graduate study in political science and related disciplines. Candidates must designate two fields as their major fields. They must successfully complete three courses in each field. Eighteen credits must be taken in graduate seminar work. Students may complete a maximum of 6 graduate credits in related areas outside political science.

To be counted toward the M.A. degree, all courses must be pre-approved by the graduate coordinator. The candidate must maintain a minimum B average during the semester 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. The candidate, in conjunction with the graduate coordinator, will select either Plan A or Plan B. All graduate students are required to take:

PSC 701 - Seminar in Research Design and Methodology among their first 12 credit hours. Other seminars may have prerequisite requirements; for example, PSC 701 must be taken before PSC 729. Internship credits do not count toward a degree program.

Plan A: Thesis Option

Students must complete 24 credit hours of course work in at least two areas of political science plus 6 credit hours of thesis. Completion of the thesis consists of an oral examination administered by the advisory committee.

Plan B: Comprehensive Examination Option

Students must complete 33 credit hours of course work in at least two areas of political science, including: PSC 782 - Directed Readings in Political Science

Political Science Ph.D.

Admission Requirements

BA or equivalent from an accredited institution with a minimum GPA of 3.3, or MA or equivalent from an accredited institution with a minimum GPA of 3.5. Under special circumstances the department may consider applicants with lower GPAs. 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.

Satisfactory scores on the Graduate Record Examination (GRE) General Test. The recommended score is a total of 1,200 on the verbal and 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.

Admission to the department is competitive, with only the strongest applicants gaining admission in any given year. Applicants must complete the Graduate College online application. 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. Official transcripts must be submitted to the Graduate College.

Degree Requirements

1. A minimum of 62 credits beyond the BA or 44 credits beyond the MA. In the latter case, the department will determine the distribution of the 44 credits, based on the student's transcripts of prior work. In the former case, the 62 credits must be distributed as follows:
 - a. Core curriculum (at least 18 credits). The department will make no exception to any of these requirements, nor will it grant a waiver of any of them.
 - (1) Scope and methods, research design (6 hours).
 - (2) 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.

- (3) Proseminars (12 credits): Comparative Politics, International Relations, Political Theory, American Politics.
 - b. Major field (9 credits, not including proseminar): either comparative politics or international relations.
 - c. Minor field #1 (6 credits, not including proseminar): either comparative politics or international relations (whichever is not the major field).
 - d. Minor field #2 (6 credits, not including proseminar): either political theory or American politics.
 - e. Electives (9 credits).
 - f. Dissertation preparatory courses (2 credits).
 - g. Dissertation (12 credits; more credits may be taken, but only 12 will count toward degree).
2. A minimum grade point average of 3.0 for all course work.
3. Preliminary written examination. It will be taken at the end of the first 18 credits of course work (typically at the beginning of the second year) and will be divided into four parts, corresponding to the four proseminars.
4. Comprehensive written and oral examinations. They will be taken during or following the semester in which the student completes required course work. They will be divided into three parts, corresponding to the student's major field and two minor fields.
5. A dissertation of original research and interpretation on a topic in the field of comparative politics or international relations.

Ethics and Policy Studies

Advisory Committee

Bernick, Lee

(2000), Professor of Public Administration and Interim Dean of the Greenspun College of Urban Affairs; B.A., M.A., Ph.D., University of Oklahoma.

Fernandez, Kenneth

(2004), Assistant Professor; B.A., University of California, San Diego; M.A., Ph.D., University of California, Riverside.

Fott, David S.

(1992), Associate Professor; B.A., Vanderbilt University; A.M., Ph.D., Harvard University.

Lutz, Mark

(2006), Assistant Professor; B.A., University of Chicago; M.A., Ph.D., University of Toronto.

Schollmeier, Paul
(1989), Professor of Philosophy; B.A., M.A., Ph.D.,
University of Chicago.

Titus, Dina
(1977), Professor; B.A., College of William and Mary;
M.A., University of Georgia; Ph.D., Florida State
University.

The Department of Political Science offers a Master of Arts degree in Ethics and Policy Studies (EPS). EPS is a unique program for students who have already begun or are planning to enter careers in government, legal or medical professions, or business, and who are curious enough to study the ethical questions involved in the making of decisions in those areas. Such students find that they can contribute more to their families, communities, and professions or businesses if they study ethics, policy, and the relation between the two. Each student in the program can pursue a specialized emphasis in his or her program of studies, contingent on the availability of faculty. EPS draws upon a wide variety of faculty from the UNLV Graduate College. Emphases may come from such areas as ethics in business, ethics in government, environmental ethics, and medical ethics (including health care policy).

EPS students learn about moral and political philosophy, about political science more generally, and about related fields in the liberal arts. This interdisciplinary focus allows EPS students a greater opportunity to study the sociopolitical context in which ethical decisions in business and the professions are made.

Doctor of Philosophy in Political Science

The Ph.D. program offers major concentrations in Comparative Politics and International Relations, and minor concentrations in American Politics, 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 PhD 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.

Ethics and Policy Studies M.A.

Admission Requirements

Admission to the department is competitive, with only the strongest applicants gaining admission in any given year. Applicants must complete the Graduate College online application. 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 provider
3. A personal statement explaining why you want to enter the master's program.
4. Applicants for admission must have earned:
 - a. A baccalaureate from an accredited college or university.
 - b. A grade point average of at least 3.00.
 - c. Satisfactory scores on the GRE General Test. Minimum scores are 500 on each of the verbal and 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.

*Note:: Official transcripts must be submitted to the Graduate College.

Degree Requirements

The Master of Arts in Ethics and Policy Studies requires the following:

EPS 702 - Ethics
EPS 710 - Seminar in Policy Analysis
EPS 744 - Citizenship and Public Policy
EPS 750 - Advanced Studies in Public Policy
EPS 799 - Thesis

Course Descriptions

Political Science

PSC 701 - Seminar in 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 - Seminar in Advanced Quantitative Methods 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:** Graduate standing and PSC 701 or equivalent.

PSC 710 - Seminar in 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. **Prerequisites:** Graduate standing.

PSC 711 - Seminar in American National Government: Structure and Processes

Credits 3 Based on critical interpretation of classic works on the discipline. Covers American political institutions, public opinion, voting behavior, and public policymaking.

Prerequisites: Graduate standing.

PSC 712 - Seminar in 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 719 - Seminar in Advanced Studies in American Politics

Credits 3

Designed to provide specialized and individualized study of selected topics in American politics. Note: May be repeated to a maximum of six credits. **Prerequisites:** Graduate standing.

PSC 720 - Seminar in Policy Formation: The Problem of Legitimacy

Credits 3

What makes a policy legitimate? Analyzes the public policymaking process in terms of such ethical considerations as public vs. private good, legality vs. morality, accountability of policymakers, enforcement of decisions, and evaluation of programs. Same as (EPS 743)

Prerequisites: Graduate standing.

PSC 721 - Seminar on the 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) Note: May be repeated to a maximum of six credits. **Prerequisites:** Graduate standing.

PSC 722 - Seminar in 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 - Seminar in 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) Note: 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 - Seminar in Intelligence Policy

Credits 3

Focuses primarily on the U.S. intelligence community as it has evolved since World War II. Emphasis on analysis, overt action and counter-intelligence. Congressional and judicial controls examined. Attention also given to Russian and other intelligence agencies. **Prerequisites:** Graduate standing.

PSC 726 - Seminar in 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 728 - Practicum in Public Policy

Credits 1 – 3

Application of analytical skills and techniques to the examination of, and involvement in, selected policy fields. Note: May be repeated to a maximum of three credits.

Prerequisites: Graduate standing.

PSC 729 - Seminar in Advanced Studies in Public Policy

Credits 3

Designing, researching, and writing an original study in a policy area of the student's choice. Attention to issues of both fact and value in the construction of an intellectually compelling argument. Guidance in developing a prospectus, a pilot project and a research paper. Same as (EPS 750)

Prerequisites: Graduate standing and PSC 701 and 723.

PSC 730 - Seminar in 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. **Prerequisites:** Graduate standing.

PSC 731 - Seminar in 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 733 - Seminar in 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 - Seminar in 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 - Seminar in Advanced Studies in Public Law
Credits 3
Designed to provide specialized and individualized study of selected topics in public law. May be repeated to a maximum of six credits. **Prerequisites:** Graduate standing.

PSC 740 - Seminar in International Relations
Credits 3
Examines concepts, methods and theories in the discipline of international relations and applies these tools to contemporary issues in international politics and economics. Conflict and peace studies, the North-South Dialogue, and futurology. **Prerequisites:** Graduate standing.

PSC 741 - Seminar in 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 - Seminar in the 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 - Seminar in International Relations of the Pacific Rim
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 749 - Seminar in Advanced Studies in International Relations
Credits 3
Designed to provide specialized and individualized study in selected areas of international relations. Note: May be repeated to a maximum of six credits. **Prerequisites:** Graduate standing.

PSC 750 - Seminar in Theory and Methods in Comparative Politics
Credits 3
In addition to a detailed examination of concepts, methods and theories of comparative politics, covers such topics as political development, ethnicity, leadership, and political economy. **Prerequisites:** Graduate standing.

PSC 760 - Seminar in 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. **Prerequisites:** Graduate standing.

PSC 769 - Seminar in Advanced Studies in Comparative Politics
Credits 3
Designed to provide specialized and individualized study in selected areas of comparative politics. Students advised to take PSC 750 before taking this course. Note: May be repeated to a maximum of six credits. **Prerequisites:** Graduate standing.

PSC 771 - Seminar in Political Theory
Credits 3
Analysis and discussion of the major theories and issues of both contemporary political thought and the history of political philosophy. Topic announced by the instructor, but might include the analysis of concepts (e.g., justice, obligation, democracy), major theories, or major texts. **Prerequisites:** Graduate standing.

PSC 779 - Seminar in Advanced Studies in Political Theory
Credits 3
Designed to provide specialized and advanced study in selected topics in political theory. Note: May be repeated to a maximum of six credits. **Prerequisites:** Graduate standing and PSC 771.

PSC 780 - Internship Program 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. Note: May be repeated to a maximum of six credits with consent of instructor.

PSC 782 - Directed Readings in Political Science

Credits 3

Program of assigned reading in preparation for comprehensive examinations. **Prerequisites:** Graduate standing and departmental approval.

PSC 789 - Thesis

Credits 3 – 6

Note: May be repeated but only six credits applied to the student's program. Grading S/F grading only. **Prerequisites:** Departmental approval.

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. Note: May be repeated to a maximum of six credits.

PSC 794 - Independent Study and Research in Political Science

Credits 1 – 3 Note:

May be repeated to a maximum of six credits with consent of instructor.

Ethics & Policy Studies

EPS 701 - Critical Thinking

Credits 3

Skills of argument analysis and synthesis, using the logic of natural language to locate, evaluate, and criticize reasoning in a variety of idioms. Culminates in a topical argument analysis and concluding synthesis of a more whole defended argument. **Prerequisites:** Graduate standing.

EPS 702 - Ethics

Credits 3

Focuses on the heritage of Western culture, ethics of the person and community, questions of conscience, justice, moral conflict, citizenship, and the issues of consent and dissent. Work is historical and critical, first on interpretation and then evaluation leading to student presentation on a problem in ethics.

EPS 710 - Seminar in 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. Each student required to locate and critique some examples of policy analysis in his or her own area of interest. Same as

(PSC 723) **Prerequisites:** Graduate standing.

EPS 712 - Seminar in Business and Professional Ethics
Credits 3

Exploration of applied ethics, which combines the study of justice, human rights, corruption, sexism, or racism, etc., with analysis of existing public- and private-sector practices or laws. Environmental, medical/health care, business, journalism, professional, and government ethics may be explored. Note: May be repeated to a maximum of six credits. **Prerequisites:** Graduate standing.

EPS 723 - Aristotle's Nicomachean Ethics

Credits 3

A close reading of Aristotle's Nicomachean Ethics. Major themes explored include moral virtue, intellectual virtue, friendship, and the relationship between philosophy, ethics and politics. Note: May be repeated to a maximum of six credits.

EPS 724 - Aristotle's Politics

Credits 3

Close reading of Aristotle's Politics. Major issues to be considered include Aristotle's political naturalism, pluralism and regime classification. Note: May be repeated to a maximum of six credits. **Prerequisites:** Graduate standing.

EPS 738 - Organizational Ethics

Credits 3

Focuses on the moral culture of the organization, its practices, reward and punishment systems, rituals, and languages. Examines differences between organizations supportive of or punitive of employees' intellectual integrity and moral autonomy. Organization as a moral habitat, functional or dysfunctional; problems of exit, voice, and loyalty. **Prerequisites:** Graduate standing or consent of instructor.

EPS 739 - Health Care Ethics

Credits 3

Investigates ethical issues in health care. Philosophical methodologies that help with complex and controversial decision including principlism casuistry, virtue theory, and care ethics. Issues include end-of-life care, informed consent, access to services, HIV, and organ transplantation. Note: May be repeated to a maximum of six credits.

Prerequisites: Graduate standing or consent of instructor.

EPS 740 - Seminar in Organizational and Public Morality

Credits 3

How organizational practices and policies produce moral consequences. What kinds of organizational responsibility belong to these practices, and how the person working in an organization maintains, balances, or loses moral integrity in such circumstances. Case studies from business,

government, professions, and community organizations.
Prerequisites: Graduate standing or consent of instructor.

EPS 741 - 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 policies underlying the existing laws, their derivative regulations, and changes considered by Congress for these laws. Same as (ENV 703) **Prerequisites:** EPS 701, 702, or 712

EPS 743 - Policy Formation: The Problem of Legitimacy

Credits 3

What makes a policy legitimate? Analyzes the public policymaking process in terms of such ethical considerations as public vs. private good, legality vs. morality, accountability of policymakers, enforcement of decisions, and evaluation of programs. **Prerequisites:** Graduate standing.

EPS 744 - Citizenship and Public Policy

Credits 3

Examines the meaning of democracy and explores various proposals for strengthening the life of active citizenship. Balances academic and theoretical concerns with strategic and empowering ones. Students develop a working concept of democratic citizenship and a plan for integrating this concept into real-world policymaking. **Prerequisites:** Graduate standing.

EPS 745 - Seminar in 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 (PSC 733) **Prerequisites:** Graduate standing.

EPS 746 - Seminar in 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. **Prerequisites:** Graduate standing.

EPS 747 - Seminar on the 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 (PSC 721) **Prerequisites:** Graduate standing.

EPS 748 - History and Policy

Credits 3

Interdisciplinary historical analysis of American policy formation and failed versus workable policy ideas. Areas of investigation may include policy studies in fields such as labor, urban development, minorities, and diplomacy. Same as (HIST 748) **Prerequisites:** Graduate standing.

EPS 749 - Seminar: 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 development of solutions to various contemporary problems. Same as (SOC 776) **Prerequisites:** Graduate standing.

EPS 750 - Advanced Studies in Public Policy

Credits 3

Designing, researching, and writing an original study in a policy area of the student's choice. Attention to issues of both fact and value in the construction of an intellectually compelling argument. Guidance in developing a prospectus, a pilot project, and a research paper. Same as (PSC 729) **Prerequisites:** EPS 701, 702, 710, and 712

EPS 790 - Ethics and Policy Selected Topics

Credits 1 – 9

Designed to allow special attention to be given to ethics and policy problems by way of philosophy, history, political science, sociology, communication studies, or related disciplines. Note: May be repeated, with permission, to a maximum of nine credits.

EPS 794 - Independent Study and Research in Ethics and Policy Studies

Credits 1-3

Note: May be repeated to a maximum of three credits with consent of instructor.

EPS 799 - Thesis

Credits 3 – 6

Thesis may be repeated, but only six credits will be applied to the student's program. Note: May be repeated to a maximum of 18 credits with consent of advisor. Grading S/F grading only. **Prerequisites:** Graduate standing and consent of instructor.

Psychology

Chair

Ashcraft, Mark H.
(2005), B.A., Grinnell College, M.A., Ph.D., University of Kansas.

Graduate Coordinator

Clinical: Kearney, Christopher A.
(1990), Professor; B.A., State University of New York at Binghamton; M.A., Ph.D., State University of New York at Albany.

Experimental: Millar, Murray
(1990), Associate Professor; B.A., Graceland College; M.S., Eastern Washington University; Ph.D., University of Georgia.

Graduate Faculty

Allen, Daniel N.
(1999), Professor; B.A., Moody Bible Institute; M.S., Eastern Washington University; Ph.D., University of South Dakota.

Barchard, Kimberly A.
(2001), Associate Professor; B.S., Simon Fraser University; M.A., Ph.D., University of British Columbia.

Carro, Michelle G.
(2004), Assistant Professor in Residence; B.A., Colgate University; Ph.D., University of Vermont.

Copeland, David
(2006), Assistant Professor; B.A., Cleveland State University; Ph.D., University of Notre Dame.

Donohue, Bradley C.
(1998), Associate Professor; B.A., University of Kansas; Ph.D., Nova Southeastern University.

Hannon, Erin E.
(2007), Assistant Professor; B.A., New College of Florida; Ph.D., Cornell University.

Heavey, Christopher L.
(1992), Associate Professor; B.A., University of California, Santa Cruz; M.A., Ph.D., University of California, Los Angeles.

Hurlburt, Russell T.
(1976), Professor; B.S.E., Princeton University; M.S., University of New Mexico; Ph.D., University of South Dakota.

Kern, Jeffrey M.
(1990), Associate Professor; B.A., Queens College; Ph.D., State University of New York at Stony Brook.

Kinney, Jefferson W.
(2007), Assistant Professor; B.S., M.S., Ph.D., Colorado State University.

Koettel, Robert C.
(1969), Associate Professor; B.A., Otterbein College; M.A., Ph.D., Ohio State University.

Meana, Marta
(1997), Professor; B.A., M.A., Ph.D., McGill University.

Parks, Colleen M.
(2008), Assistant Professor; B.A., Trinity University; M.S., Ph.D., Georgia Institute of Technology.

Pritchard, Laurel M.
(2007), Assistant Professor; B.S., University of Findlay; Ph.D., University of Cincinnati.

Rennels, Jennifer L.
(2003), Assistant Professor; B.S., Ithaca College; M.A., Ph.D., University of Texas, Austin.

Silver, N. Clayton (1997),
Associate Professor; B.A., University of Cincinnati; M.S., Ph.D., Tulane University.

Snyder, Joel S.
(2007), Assistant Professor; B.A., University of California, San Diego; Ph.D., Cornell University.

Warren, Cortney S.
(2006), Assistant Professor; B.A., Macalester College; M.S., Ph.D., Texas A&M University.

Professors Emeriti

Ferraro, Douglas P.
(1996-2008) Emeritus Professor; A.B., M.A., Ph.D., Columbia University.

Hess, Harrie F.
(1965-1989) Emeritus Professor; B.A., University of Nevada, Reno; M.A., Ph.D., University of Colorado.

Knapp, Terry J.
(1976-2007), Emeritus Professor; B.A., B.S., University of Iowa; M.A., University of Northern Iowa; Ph.D., University of Nevada, Reno.

Rasmussen, Charles T.
(1972-2007). Emeritus Associate Professor; B.A., Susquehanna University; M.A., Ph.D., University of Arizona.

Psychology Ph.D.

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 programs.

Doctoral Program in Clinical Psychology

The UNLV Clinical Psychology Doctoral Program prepares 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 program is fully accredited by the American Psychological Association. The Clinical Psychology program currently admits only students seeking a doctoral degree. The program admits students for matriculation only in the fall semester. The application deadline is January 2 prior to the fall for which matriculation is being requested. Applicants will be notified of their status prior to December 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> for more information).

Admission Requirements

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, Quantitative, and Advanced Psychology sections of the Graduate Record Exam (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.

Degree Requirements: Clinical Psychology

The doctoral degree in clinical psychology requires a minimum of 96 credits. En route to doctoral candidacy the student must complete the requirements for a master's degree in psychology according to the following:

Master's Degree: 48 Total Credit Hours

PSY 707 - Research Methods
PSY 708 - Statistics for Psychologists I
PSY 709 - Statistics for Psychologists II
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
PSY 767 - Practicum (required credits: 6)
PSY 769 - Thesis (required credits: 6)

Doctoral Degree: 48 Total Credit Hours

A master's degree in psychology equivalent to the above and the following 48 credits:

PSY 767 - Practicum (required credits: 12)
PSY 770 - Dissertation (required credits: 12) *The dissertation must be orally proposed and defended.*
PSY 771 - Professional Internship
Psychology Electives Credits: 6
Biological aspects of behavior Credits: 3*
Cognitive and affective aspects of behavior Credits: 3*
Social aspects of behavior Credits: 3*
Human development Credits: 3*

Note: *Courses must be chosen from approved list in the Student Handbook or be approved by petition of the Clinical Program Committee.

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.

Other Requirements

Electives consist of any 700-level psychology course. 700-level courses offered by other departments may fulfill the elective requirement with approval of the student's advisor and the Clinical Program Committee.

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.

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 in the following five areas: (1) academic performance; (2) scholarly research activity; (3) clinical knowledge and skill; (4) ethical behavior and professional conduct; and (5) assistantship performance, if applicable. Inadequate performance in one or more of the five areas of functioning may result in the imposition of additional requirements, loss of Graduate Assistantship, probation, or separation from the program.

Transfer Credits

Admitted clinical students may waive credits or transfer credits from graduate studies in other programs contingent upon departmental approval and in accordance with Graduate College policy.

Doctoral Program in Experimental Psychology

The UNLV Experimental Psychology Doctoral Program trains research psychologists for employment in academic and nonacademic settings. The objective is to produce graduates who will be prepared for a variety of research settings, with a strong emphasis on statistical and methodological skills that can be applied to real world problems. This is a mentored program. Each admitted student will work directly with a specific faculty member who will oversee his/her training. The Experimental Psychology program currently admits only students seeking a doctoral degree. The program admits students for matriculation only in the fall semester. The application deadline is January 15 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.

Admission Requirements

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.

Degree Requirements: Experimental Psychology

Master's Degree: 33 Total Credit Hours

As a milestone en route to doctoral candidacy, the student must fulfill the following requirements. Upon satisfactory completion of these requirements, a master's degree shall be awarded. A minimum of 33 credits in graduate psychology that include the following:

General Emphasis

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

PSY 758 - Proseminar in Experimental Psychology (6 credits). Course is repeated each semester during the first two years of study.

PSY 769 - Thesis (minimum 2 semesters, 6 credits). *The thesis must be orally proposed and defended.*

Two of the following courses (6 credits)

PSY 701 - Biological Bases of Behavior

PSY 703 - Cognitive Psychology

PSY 704 - Social Psychology

PSY 705 - Developmental Psychology

Three (3) Elective Credits

Cognitive Emphasis

PSY 707 - Research Methods

PSY 708 - Statistics for Psychologists I

PSY 709 - Statistics for Psychologists II

PSY 717 - Cognitive Methods*

PSY 718 - Cognitive Science*

*Students lacking sufficient background in cognition will also take PSY 703: Cognitive Psychology prior to taking these core courses.

PSY 756 - Ethics, Professional Issues, and Diversity in Experimental Psychology

PSY 758 - Proseminar in Experimental Psychology (6 credits). Course is repeated each semester during the first two years of study.

PSY 769 - Thesis (minimum 2 semesters, 6 credits). *The thesis must be orally proposed and defended.*

Three (3) Elective Credits

Neuroscience Emphasis

PSY 707 - Research Methods

PSY 708 - Statistics for Psychologists I

PSY 709 - Statistics for Psychologists II

PSY 719 - Behavioral Neuroscience*
PSY 720 - Systems and Cognitive Neuroscience*

*Students lacking sufficient background in Neuroscience will also take PSY 701: Biological Bases of Behavior prior to taking these core courses.

PSY 756 - Ethics, Professional Issues, and Diversity in Experimental Psychology
PSY 758 - Proseminar in Experimental Psychology (6 credits). Course is repeated each semester during the first two years of study
PSY 769 - Thesis (minimum 2 semesters, 6 credits). *The thesis must be orally proposed and defended.*
Three (3) Elective Credits

Developmental Emphasis

PSY 708 - Statistics for Psychologists I
PSY 709 - Statistics for Psychologists II
PSY 713 - Developmental Research
PSY 721 - Topics in Developmental Science: (6 credits)
Students are to repeat the course within consecutive semesters.
PSY 756 - Ethics, Professional Issues, and Diversity in Experimental Psychology
PSY 758 - Proseminar in Experimental Psychology
PSY 769 - Thesis (minimum 2 semesters, 6 credits). *The thesis must be orally proposed and defended.*

Three (3) Elective Credits

Doctoral Degree: 39 Total Credit Hours

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. Required courses for the General, Cognitive, Neuroscience and Developmental Emphases differ somewhat. In each emphasis, the doctoral student will be required to complete a Qualifying Paper before proposing a Dissertation. This paper must present an extensive review of a topic within experimental psychology. When completed, the student presents the paper to her/his committee, and an open discussion and question-answer session follow.

General Emphasis

Two of the following courses that have not been applied to the student's master's degree (6 credits):
PSY 701 - Biological Bases of Behavior
PSY 703 - Cognitive Psychology
PSY 704 - Social Psychology
PSY 705 - Developmental Psychology

Psychology Electives (21 credits)
Electives consist of 700-level psychology courses. 700-level courses offered by other departments can fulfill the elective requirement with prior approval of the student's advisor. 600-level courses offered by other departments require prior

approval of the student's advisor and concurrence by the Experimental Program Director.

Two electives that are typically taken by students are:
PSY 757 - Teaching of Psychology
PSY 772 - Experimental Psychology Qualifying Paper Research
PSY 770 - Dissertation (minimum four semesters which can include summers, 12 credits). The dissertation must be orally proposed and defended.
Cognitive Emphasis
Two of the following cognitive seminar courses (6 credits):
PSY 747 - Topics in Perception
PSY 748 - Topics in Memory:
PSY 749 - Topics in Cognitive Processes:

Psychology Electives (21 credits)
Electives consist of 700-level psychology courses. 700-level courses offered by other departments can fulfill the elective requirement with prior approval of the student's advisor. 600-level courses offered by other departments require prior approval of the student's advisor and concurrence by the Experimental Program Director.

Two electives that are typically taken by students are:
PSY 757 - Teaching of Psychology
PSY 772 - Experimental Psychology Qualifying Paper Research
PSY 770 - Dissertation (minimum four semesters which can include summers, 12 credits). The dissertation must be orally proposed and defended.

Neuroscience Emphasis

Psychology Electives (27 credits)
Electives consist of 700-level psychology courses. 700-level courses offered by other departments can fulfill the elective requirement with prior approval of the student's advisor. 600-level courses offered by other departments require prior approval of the student's advisor and concurrence by the Experimental Program Director. Two electives that are typically taken by students are:

Two electives that are typically taken by students are:
PSY 757 - Teaching of Psychology
PSY 772 - Experimental Psychology Qualifying Paper Research
PSY 770 - Dissertation (minimum four semesters which can include summers, 12 credits). The dissertation must be orally proposed and defended.

Developmental Emphasis

Three developmental seminar courses (9 credits):
PSY 740 - Topics in Developmental Psychology

Two of the following courses that have not been applied to the student's master's degree (6 credits): PSY 701 - Biological Bases of Behavior, PSY 719 - Behavioral

Neuroscience or PSY 720 - Systems and Cognitive Neuroscience
PSY 703 - Cognitive Psychology or PSY 718 - Cognitive Science
PSY 704 - Social Psychology

Psychology Electives (12 credits)
Electives consist of 700-level psychology courses. 700-level courses offered by other departments can fulfill the elective requirement with prior approval of the student's advisor. 600-level courses offered by other departments require prior approval of the student's advisor and concurrence by the Experimental Program Director.

Two electives that are typically taken by students are:
PSY 757 - Teaching of Psychology
PSY 772 - Experimental Psychology Qualifying Paper Research

PSY 770 - Dissertation (minimum four semesters which can include summers, 12 credits). *The dissertation must be orally proposed and defended.*

Course Descriptions

PSY 606 - Intermediate Statistics
PSY 620 - Psychology of Learning
PSY 680 - Experimental Psychology
PSY 681 - Principles of Psychological Testing
PSY 682 - History of Psychology
PSY 683 - Theories of Personality

Note: 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. Note: Credit at the 600-level normally requires additional work.

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:** 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:** 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:** 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:** PSY 460 and consent of instructor.

PSY 705 - Developmental Psychology

Credits 3
Survey of cognitive, social, and emotional development from birth through adolescence. **Prerequisites:** 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:** Consent of instructor.

PSY 707 - Research Methods

Credits 3
Advanced treatment of the issues involved in planning, conducting, and evaluating research. **Prerequisites:** 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:** Graduate standing.

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:** Graduate standing.

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 709 or equivalent or consent of instructor.

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. **Prerequisites:** PSY 708 and 709 or equivalent or consent of instructor.

PSY 712 - Psychometrics

Credits 3

Principles of evaluating and constructing psychological tests using psychometric theory and behavioral assessment methodology. **Prerequisites:** Graduate standing.

PSY 713 - Developmental Research

Credits 3

Application of theory, methods, designs, analyses, and interpretation of research in developmental psychology. 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:** 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:** 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:** 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:** 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:** 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: 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: Consent of instructor

PSY 721 - Topics in 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. Course may be repeated. Note: Developmental Emphasis students should repeat the course within consecutive semesters. May be repeated to a maximum of six credits.

PSY 725 - Intervention with Children

Credits 3

Principles and methods of psychological intervention with children. **Prerequisites:**

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:** 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. Note: May be repeated to a maximum of nine credits **Prerequisites:** Completion of year 1 of the Ph.D. Program. Consent of instructor.

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:** Consent of instructor.

PSY 736 - Psychopathology

Credits 3

Advanced treatment of psychopathology covering description, diagnosis, classification, physiological factors, and psychodynamics. **Prerequisites:** 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:** Consent of instructor

PSY 740 - Topics in Developmental Psychology

Credits 3

Analysis of theoretical concepts and research pertinent to the development of the individual. Note: May be repeated to a maximum of 12 credits.

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 Ph.D. Program.

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:** 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:** 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:** Consent of instructor.

PSY 745 - Clinical Geropsychology

Credits 3 Assessment and psychological treatment of problems experienced in late life. **Prerequisites:** Consent of instructor.

PSY 746 - Marital and Family Therapy

Credits 3 Principles and methods of psychological interventions with couples and families. **Prerequisites:** 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. Note: May be repeated to a maximum of 12 credits. **Prerequisites:** 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:** 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. Note: May be repeated to a maximum of twelve credits. **Prerequisites:** 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:** Graduate standing or consent of instructor.

PSY 755 - Ethics and Professional Issues

Credits 3

Examination of ethical and professional issues related to the practice of psychology. **Prerequisites:** 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: 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:** 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. Note: May be repeated to a maximum of three credits. **Prerequisites:** Consent of instructor.

PSY 760 - Advanced Psychological Assessment

Credits 3

Advanced practice in psychodiagnosis, psychological test administration, scoring, interpretation, and integrated report writing. **Prerequisites:** Limited to students enrolled in clinical psychology doctoral program and consent of instructor.

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: Limited to students enrolled in clinical psychology doctoral program and consent of instructor.

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.

PSY 764 - Family Counseling Practicum

Credits 3 Supervised practice in counseling with families and couples. Emphasis on understanding functioning at the family system. **Prerequisites:** Consent of instructor.

PSY 765 - Seminar

Credits 1 – 6

Explores a specific aspect of psychology. Department approval must be obtained prior to registration. Note: May be repeated to a maximum of six credits.

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. Note: Student may enroll for 1-6 credits per semester. May be repeated to a maximum of six credits.

PSY 767 - Practicum

Credits 3

Supervised clinical experience at a departmentally approved site. Note: Department approval must be obtained prior to registration. May be repeated.

PSY 768 - Independent Research

Credits 3 – 9

Individual research projects under the direction of a faculty member. Note: Department approval must be obtained prior to registration. Student may enroll for 3-9 credits per semester. May be repeated.

PSY 769 - Thesis

Credits 3 – 6 Note: May be repeated, but only six credits will be applied to the student's program. Grading S/F grading only.

PSY 770 - Dissertation

Credits 3 – 12

Dissertation must be orally proposed and defended. Note: 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. Corequisite Department approval must be obtained prior to registration.

PSY 771 - Professional Internship

Credits 3 – 9

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. Note: Students may enroll for 3-9 credits per semester. May be repeated, but only six credits will be applied to the student's program. Grading S/F grading 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. Note: Three credits are required for doctoral degree requirements. Grading S/F grading only. **Prerequisites:** Consent of instructor.

Sociology

Chair

Fontana, Andrea
(1976), Professor; B.A., M.A., Ph.D., University of California, San Diego.

Graduate Coordinators

Gottschalk, Simon
(1992), Associate Professor; B.A., Haifa University (Israel); M.A., University of Houston; Ph.D., University of California, Santa Barbara.

Graduate Faculty

Batson, Christie
(2007), Assistant Professor; B.A., University of Texas, Austin, M.A., Ph.D., the Ohio State University.

Bernhard, Bo
(2002), Associate Professor; B.A., Harvard University; M.A., Ph.D., University of Nevada, Las Vegas.

Brents, Barbara
(1987), Associate Professor; B.J., M.A., Ph.D., University of Missouri.

Borer, Michael
(2008), Assistant Professor; B.A., Lafayette College; M.A., Ph.D., Boston University.

Dickens, David
(1984), Professor; B.A., Ph.D., University of Kansas

Futrell, Robert
(1999), Associate Professor; B.A., University of Kentucky; M.A., Ph.D., University of Kansas.

Gottschalk, Simon
(1992), Associate Professor; B.A., Haifa University; M.A., University of Houston; Ph.D., University of California, Santa Barbara.

Hausbeck, Kathryn
(1995), Associate Professor and Senior Associate Dean, Graduate College; B.A., M.A., Ph.D. State University of New York at Buffalo.

Keene, Jennifer
(2001), Associate Professor; B.A., Tulane; M.S., Ph.D., Florida State University.

Monnat, Shannon
(2008), Assistant Professor; B.A., State University of New York.

Parker, Robert E.
(1989), Professor; B.S., Southern Illinois University; M.A., Ph.D., University of Texas at Austin.

Shalin, Dmitri N.
(1991), 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.

Smith, Ronald W.
(1972), Professor and Vice President for Research and Graduate Dean; B.S., Southeast Missouri State College; M.A., Northern Illinois University; Ph.D., Washington State University.

Spivak, Andrew
(2008), Assistant Professor; BBA, University of Oklahoma; B.A., M.A., University of Central Oklahoma; M.A., Ph.D., University of Oklahoma.

Professors Emeriti

Carns, Donald E.
(1973), Professor; B.A., M.A., Southern Illinois University; Ph.D., Indiana University.

Frey, James
(1974-2004), Professor and Dean; B.A., Augustana College; M.A., University of Iowa; Ph.D., Washington State University.

The graduate faculty in sociology consists of scholars/teachers who have earned doctorates at some of the leading graduate schools in the country. The DOS offers three graduate program tracks: a terminal MA program with a specialization in Community Studies; a Ph.D. program for students who have already earned a Masters degree; and a Bachelors 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 have five broad areas of specialization in the department: 1. Community Studies; 2. Culture; 3. Inequalities; 4. Social Psychology, Symbolic Interactionism & Deviance; 5. Politics & Institutions. The M.A. program has been in place for many years and has graduated men and women who occupy professional, academic and administrative positions across the nation. Beginning with the class of 2005, all graduates of our MA program now have a specialization in Community Studies. The Ph.D. program, which began in 1989, has already graduated more than 37 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 MA and Ph.D. programs from candidates who can demonstrate a record of significant academic achievement and potential for professional success in sociology.

Sociology (Bachelor's to Doctorate Program) Ph.D.

This Doctor of Philosophy in Sociology program is designed for 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. 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 three advanced areas of specialization from among the department's five core areas of specialization. All students will develop a specialization in Urban Studies and then choose to specialize in two of the following areas: 1. Culture; 2. Inequalities; 3. Social Psychology, Symbolic Interactionism and Deviance; 4. Politics & Institutions). 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.

Admissions Requirements

1. A bachelor's degree in sociology from an accredited institution.
2. Satisfactory scores that are less than five years old on the general Graduate Record Examination.
3. At least three 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.
4. A statement of purpose, written by the applicant, that evidences all of the following: writing skills, professionalism, educational and professional/career objectives, specific areas of interest in sociology generally, and in the UNLV Department of Sociology specifically.
5. Two original writing samples of substantial length and quality that indicate student's writing and analytical skills, as well as sociological knowledge.

6. International students must take both the TOEFL and the Test of Written English and receive satisfactory scores on both.
7. If you are interested in applying for a Graduate Assistantship, please be sure to indicate this in your written statement and submit the appropriate Graduate Assistantship Application form to the Graduate College (this form is available from the Graduate College).

Degree Requirements

1. Bachelor's to Doctoral students must complete a minimum of 60 credit hours in courses designated for graduate study in sociology as well as a minimum of 12 dissertation credits, for a total of at least 72 credits. 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 six Dissertation credits per semester.
 - a. Students must complete the sequence of core, required courses:
 - SOC 701 - Logic of Social Inquiry
 - SOC 702 - Quantitative Methods
 - SOC 704 - Advanced Analytical Techniques
 - SOC 756 - Urban Theory: Culture and Community
 - SOC 705 - Qualitative Methods
 - SOC 707 - Proseminar I
 - SOC 723 - Classical Sociological Theory
 - SOC 724 - Issues in Contemporary Sociological Theory
 - SOC 757 - Urban Field Methods
 - SOC 717 - Urban Demography and Population Studies
 - SOC 708 - ProSeminar II
 - b. Students must complete SOC 756, and SOC 757 or SOC 717 as part of the mandatory specialization in Urban Studies. These must be successfully completed before taking specialty area comprehensive exams.
 - c. After successful completion of all required courses (701, 702, 704, 705, 707, 708, 723, 724), a minimum of 36 total course credits, three credits of thesis or professional paper, and this professional paper process (proposal, research, writing, oral defense and journal submission), students may leave the Ph.D. program track with a Masters degree. See section 5 below for additional information.
 - d. Of the 60 required course credit hours, a maximum of six 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.
 - e. Doctoral students must identify two additional areas of specialization (Culture; Inequalities; Social

- Psychology, Symbolic Interactionism and Deviance; Politics & Institutions) and complete a minimum of six credits of study in each area.
- f. Students must complete a minimum of three credits in Field Research , Internship or Teaching Sociology:
 - SOC 790 - Sociological Internship,
 - SOC 791 - Field Experience in Sociology or
 - SOC 709 - Teaching Sociology),
 - as well as 3 credits of Professional Paper before defending their Professional Paper and submitting it to a reputable sociology journal for peer review (See #2 below).
 - g. A minimum of 54 course credits must be completed in 700-level Sociology courses.
 - h. A maximum of six credit hours may be taken in approved 700 level graduate courses in a related discipline.
 - i. Students are strongly encouraged to enroll in SOC 709, Learning to Teach Sociology. Doctoral students who have completed their Theory and Methods comprehensive exams and SOC 709 maybe eligible for autonomous teaching.
 - j. 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.
 - k. 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.
 - l. A student may only be on academic probation twice during their graduate career in Sociology; a third probation will result in separation from the program.
 - m. No student shall be allowed more than two simultaneous grades of Incomplete, except in the case of documented and approved emergency or medical leave.
 - n. Please see the Sociology Graduate Program Handbook for additional up-to date information about program rules, regulations, guidelines, processes and procedures.
2. Bachelor's to Doctorate students must 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.
 - a. Students must orally present and defend their completed professional paper to her or his Examination Committee, and receive majority approval.
 - b. 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.
 - c. Students may complete this stage of the program only after successfully completing all 21 core required courses, as well as a minimum of 6 credits of 700-level Sociology electives.
 - d. Students may not take any comprehensive exams or complete more than 40 course credits before successfully completing this step in the program.
 - e. Students who do not complete this requirement in a timely manner (before completing 40 credits) or successfully will be separated from this program.
 - f. In some instances, a student may be eligible to remove themselves from the Ph.D. track and enter the MA program professional paper track before completing the professional paper defense and journal submission process. See section 5 below for additional information.
 - g. After successful completion of: all required courses (701, 702, 704, 705, 707, 708, 710, 711, 723, 724), a minimum of 36 total course credits, three credits of thesis or professional paper, and this professional paper process (proposal, research, writing, oral defense and journal submission), students may leave the Ph.D. program track with a Masters degree. See section 5 below for additional information.
 3. In addition to a minimum of 60 hours of course work and 12 hours of Dissertation credits, and successful completion of the professional paper process as described above, a Doctoral student must successfully pass four comprehensive examinations: one in theory, one in methods and statistics, and two in their chosen areas of specialization. Students should refer to the detailed guidelines governing the comprehensive exam process available in the Sociology Department.
 - a. The Theory and Methods comprehensive exams will each be offered once a semester; students may only take one of these exams per semester. Intention to take one of these exams must be given to the graduate coordinator and senior management assistant by the second week of the semester in which you intend to take one of these exams.
 - b. Students may not take either the Theory or the Methods comprehensive exam until they have completed all required course work in these areas.
 - c. The Theory and Methods exams are in-class exams. Additional guidelines for this process are

- available in the Sociology Graduate Program Handbook.
- d. Students are expected to prepare for the Theory and Methods comprehensive exams by reviewing class materials, meeting with their Doctoral Examination Committee, meeting with faculty sitting on the Theory and Methods committees, looking at copies of old exams, and doing systematic independent preparation, including coverage of the department's theory and methods required reading lists.
 - e. Successful completion of both the Theory and Methods exams is required prior to submitting the two specialty area comprehensive exams.
 - f. Each of the two specialty area comprehensive exams are in one of the student's areas of specialization. There are five acceptable formats: a literature review; an annotated bibliography; an in-class exam; a takehome exam; or preparation of a course, complete with lectures. These specialty area comprehensive exams should be designed in close consultation with the student's Doctoral Examination Committee and reflect logical and substantive depth and breadth of knowledge of these areas.
 - g. There are four possible grades for the comprehensive exams: Pass with Distinction; Pass; Conditional Pass with Rewrites (to be completed within two weeks of notification); or Fail.
 - h. A student must retake a failed comprehensive exam within one year 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.
 - i. All four comprehensive exams must be completed prior to the student's Dissertation Prospectus defense and advancement to candidacy.
4. Doctoral students are required to complete a minimum of 12 credits of Dissertation hours: 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 Doctoral Examination Committee.
 - a. Students must establish a Doctoral Examination Committee consisting of at least three Graduate Faculty members in Sociology and one Graduate College representative from another discipline.
 - b. An approved degree program form must be filed with the Sociology Graduate Coordinator and the Graduate College by the end of the student's third semester in the program; this form must be filled out in consultation with the student's Doctoral Examination Committee.
 5. Bachelor's to Doctorate 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, contingent upon recommendation of approval by the student's Doctoral Examination Committee, the DOS Graduate Committee & Graduate Coordinator(s), and the DOS Chair.
 - a. Students in good standing in the graduate program, who have completed 40 or fewer credits (including all core required courses) and have not successfully defended and submitted their professional paper to a peer-review sociology journal may simply petition to switch to the MA program professional paper track. If approved, all standard requirements (see above) for the MA must be met for the degree to be conferred.
 - b. Students in good standing in the graduate program, who have completed more than 40 credits and have successfully authored and defended a professional paper that has been submitted for peer-review to a sociology journal may simply apply to receive their MA degree.
 - c. Students who are not in good academic standing (i.e. are on probation, have failed one or more comprehensive exams, etc.) may petition their Doctoral Examination Committee, the Graduate Coordinator and the DOS Chair to receive an MA degree or be transferred to the MA program. These requests will be reviewed on a case-by-case basis taking into consideration whether or not the student is being separated from the doctoral program (and if so, under what circumstances), the student's progress and stage in the program, and whether the student has completed, or is believed to be able to complete, all requirements for the MA degree.
- c. Students must work with their Doctoral Examination Committee to ensure quality research, analysis and writing of the comprehensive exams and dissertation.
 - d. 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 examination 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.
 - e. Upon completion of the dissertation, a final oral defense will be held in front of the student's Doctoral Examination Committee.
 - f. Committee members must unanimously pass the student on her or his oral defense for the Ph.D. to be conferred.

Sociology (Post - M.A. Program) Ph.D.

This Doctor of Philosophy in Sociology program is designed for students who have completed a thesis and earned a master's degree in sociology or a closely related discipline, with 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 two advanced areas of specialization from among the department's five core areas of specialization (1. Urban Studies; 2. Culture; 3. Inequalities; 4. Social Psychology, Symbolic Interactionism and Deviance; 5. Politics, Institutions and Urban). 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 see the Sociology Graduate Student Handbook for up-to-date policies, processes and information.

Admission Requirements

The annual deadline for applications is January 31. We only admit new students in Fall semesters. Prospective students must simultaneously apply for admission to the Graduate College and the DOS. See the UNLV Graduate College website for forms and additional information about how to apply to the Graduate College. Then, please submit copies of everything that you sent in your Graduate College application, as well as the following information and documentation to the Department of Sociology, Attention: Graduate Admissions Coordinator.

1. 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.
2. Satisfactory scores that are less than five years old on the general Graduate Record Examination.

3. At least three letters of recommendation, preferably from faculty members who know your work, evaluating your 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.
4. A statement of purpose written by the applicant. Applicants are expected to explain your educational objectives and interests, as well as your professional goals.
5. 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.
6. International students must take both the TOEFL and the Test of Written English and receive satisfactory scores on both.
7. If you are interested in applying for a Graduate Assistantship, please be sure to indicate this in your written statement and submit the appropriate Graduate Assistantship Application form to the Graduate College (this form is available from the Graduate College).

Degree Requirements

1. Doctoral students must complete a minimum of 40 credit hours in courses designated for graduate study in sociology and a minimum of 12 Dissertation credits. Dissertation credits may only be taken after the student successfully defends their dissertation prospectus and submits required paperwork to the Graduate College. Students may not take more than six Dissertation credits per semester.
 - a. Ph.D. students must complete the three-semester sequence of core, required courses:
 - 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, unless these courses were completed by the student at the M.A. level at UN
 - b. Students must complete one additional advanced 700-level Sociology course in social theory and one additional advanced 700-level Sociology course in statistics or research methods, or equivalents approved by student's Doctoral Examination Committee Chair and the Graduate Coordinator.
 - c. Of the 40 required course credit hours, a maximum of six 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 approved 700-level course in another department.
- d. A maximum of six credits of Independent Study or Directed Readings are allowed at the Ph.D. level.
 - e. A maximum of six credit hours may be taken in an approved 700 level graduate course in a related discipline.
 - f. Doctoral students must identify two areas of specialization (Culture; Inequalities; Social Psychology, Symbolic Interactionism and Deviance; Politics & Institutions; or Community Studies) and complete a minimum of 3 credits of advanced study in each area.
 - g. A minimum of 34 course credits must be completed in 700-level Sociology courses.
 - h. Ph.D. candidates are strongly encouraged to enroll in SOC 709, Learning to Teach Sociology. Doctoral students who have completed their Theory and Methods comprehensive exams and SOC 709 may be eligible for autonomous teaching.
 - i. Doctoral students teaching their own autonomous courses must be simultaneously enrolled in: SOC 710 - Teaching Practicum; after one semester of taking SOC 710 for credit, graduate student instructors may audit the class.
 - j. 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, they will be separated from the program.
 - k. A student may only be on academic probation twice during their graduate career in Sociology; a third probation will result in separation from the program.
 - l. No student shall be allowed more than two simultaneous grades of Incomplete, except in the case of documented and approved emergency or medical leave.
 - m. Please see the Sociology Graduate Program Handbook for additional up-to-date information about program rules, regulations, guidelines, processes and procedures.
2. In addition to a minimum of 40 hours of course work and 12 hours of Dissertation credits, a Doctoral student must successfully pass four comprehensive examinations: one in theory, one in methods and statistics, and two in their chosen areas of specialization.
 - a. Students should refer to the detailed guidelines governing the comprehensive exam process available in the Sociology Department.
 - b. The Theory and Methods comprehensive exams will each be offered once a semester; students may only take one of these exams per semester. Intention to take one of these exams must be given to the graduate coordinator and senior management assistant by the second week of the semester in which you intend to take one of these exams.
 3. Doctoral students are required to complete a minimum of 12 credits of Dissertation hours: (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 Doctoral Examination Committee.
 - a. Students must establish a Doctoral Examination Committee consisting of at least three Graduate Faculty members in Sociology and one Graduate College representative from another discipline.
 - b. An approved degree program form must be filed with the Sociology Graduate Coordinator and the
- c. Students may not take either the Theory or the Methods comprehensive exam until they have completed all required course work in these areas.
 - d. The Theory and Methods exams are in-class exams. Additional guidelines for this process are available in the Sociology Graduate Program Handbook. Students are expected to prepare for the Theory and Methods comprehensive exams by reviewing class materials, meeting with their Doctoral Examination Committee, meeting with faculty sitting on the Theory and Methods committees, looking at copies of old exams, and doing systematic independent preparation, including coverage of the department's theory and methods required reading lists.
 - e. Successful completion of both the Theory and Methods exams is required prior to submitting the two specialty area comprehensive exams.
 - f. Each of the two specialty area comprehensive exams are in one of the student's areas of specialization. There are five acceptable formats: a literature review; an annotated bibliography; an in-class exam; a takehome exam; or preparation of a course, complete with lectures. These specialty area comprehensive exams should be designed in close consultation with the student's Doctoral Examination Committee and reflect logical and substantive depth and breadth of knowledge.
 - g. There are four possible grades for the comprehensive exams: Pass with Distinction; Pass; Conditional Pass with Rewrites (to be completed within two weeks of notification); or Fail.
 - h. A student must retake a failed comprehensive exam within one year 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.
 - i. All four comprehensive exams must be completed prior to the student's Dissertation Prospectus defense and advancement to candidacy.

Graduate College by the end of the student's third semester in the program; this form must be filled out in consultation with the student's Doctoral Examination Committee.

- c. Students must work with their Doctoral Examination Committee to ensure quality research, analysis and writing of the comprehensive exams and dissertation.
- d. 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 examination 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.
- e. Upon successful completion of the oral defense of the dissertation prospectus, the student may advance to candidacy and begin enrolling in dissertation credit.
- f. Upon completion of the dissertation, a final oral defense will be held in front of the student's Doctoral Examination Committee. Committee members must unanimously pass the student on her or his oral defense for the Ph.D. to be conferred.

Sociology M.A.

The Master of Arts in Sociology program is focused on training students in Urban Studies. The program provides students with pre-doctoral training as well as preparation for entry into governmental, nonprofit and private sector employment that deals with community development and organizing, social issues, social policy and social research. Students may choose between two culminating scholarly experiences: the thesis track, or a professional paper. Educational outcomes for our M.A. program include: development of scholarly and professional expertise in community studies, familiarity with both classical and contemporary sociological theories, mastery of both quantitative and qualitative research methods and data analysis, the development of a sociological imagination, and cultivation of analytical research and writing skills which culminate in the ability to either author an independent thesis of substantial depth and quality or a professional paper reflecting sustained engagement in a community project or organization. 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.

Admission Requirements

The annual deadline for applications is January 31. We only admit new students in Fall semesters. Prospective students must simultaneously apply for admission to the Graduate College and the Department of Sociology. See the UNLV Graduate College website for forms and additional information about how to apply to the Graduate College. Then, please submit copies of everything that you sent in your Graduate College application, as well as the following information and documentation to the Department of Sociology, Attention: Graduate Admissions Coordinator.

1. Applicants should have completed a minimum of 18 credits in sociology. These must include courses such as Introduction to Sociology, sociological theory, research methods and statistics and you must have a GPA in sociology, and overall, of at least 3.00 to be accepted into the program.
2. An original copy of your GRE scores on the General Exam (which must be less than 5 years old); there are no exceptions. Please Note: that instead of having minimum GRE scores, we consider GRE results as one among many indicators of your graduate success and evaluate them as one part of your overall application.
3. A minimum undergraduate grade point average of 3.00.
4. At least three letters of recommendation, preferably from faculty members who can knowledgeably evaluate your ability to do graduate-level work. These should include comments on the student's academic performance, motivation, character, and promise for success in the M.A. program.
5. A written statement of intent from the student explaining academic background, your interests in sociology, your interest in and commitment to community studies, and your professional career goals.
6. An academic writing sample, preferably one that shows evidence of your written communication and analytical skills, as well as your sociological imagination.
7. International students must take both the TOEFL and the Test of Written English and receive satisfactory scores on both.
8. If you are interested in applying for a Graduate Assistantship, please be sure to indicate this in your written statement and submit the appropriate Graduate Assistantship Application form to the Graduate College (this form is available from the Graduate College). The department will consider all evidence listed above in evaluating the student for potential entry in the program.

Degree Requirements

1. Doctoral students must complete a minimum of 40 credit hours in courses designated for graduate study in sociology and a minimum of 12 Dissertation credits. Dissertation credits may only be taken after the student successfully defends their dissertation prospectus and submits required paperwork to the Graduate College.

Students may not take more than six Dissertation credits per semester.

- a. Ph.D. students must complete the three-semester sequence of core, required courses:

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, unless these courses were completed by the student at the M.A. level at UNLV.
- b. Students must complete one additional advanced 700-level Sociology course in social theory and one additional advanced 700-level Sociology course in statistics or research methods, or equivalents approved by student's Doctoral Examination Committee Chair and the Graduate Coordinator.
- c. Of the 40 required course credit hours, a maximum of six 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 approved 700-level course in another department.
- d. A maximum of six credits of Independent Study or Directed Readings are allowed at the Ph.D. level.
- e. A maximum of six credit hours may be taken in an approved 700 level graduate course in a related discipline.
- f. Doctoral students must identify two areas of specialization (Culture; Inequalities; Social Psychology, Symbolic Interactionism and Deviance; Politics & Institutions; or Community Studies) and complete a minimum of 3 credits of advanced study in each area.
- g. A minimum of 34 course credits must be completed in 700-level Sociology courses.
- h. Ph.D. candidates are strongly encouraged to enroll in SOC 709 - Teaching Sociology. Doctoral students who have completed their Theory and Methods comprehensive exams and SOC 709 may be eligible for autonomous teaching.
- i. Doctoral students teaching their own autonomous courses must be simultaneously enrolled in: SOC 710 - Teaching Practicum; after one semester of taking SOC 710 for credit, graduate student instructors may audit the class.
- j. 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, they will be separated from the program.

- k. A student may only be on academic probation twice during their graduate career in Sociology; a third probation will result in separation from the program.
 - l. No student shall be allowed more than two simultaneous grades of Incomplete, except in the case of documented an 3. d approved emergency or medical leave.
 - m. Please see the Sociology Graduate Program Handbook for additional up-to-date information about program rules, regulations, guidelines, processes and procedures.
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 - b. Students may not take either the Theory or the Methods comprehensive exam until they have completed all required course work in these areas.
 - c. The Theory and Methods exams are in-class exams. Additional guidelines for this process are available in the Sociology Graduate Program Handbook.
 - d. Students are expected to prepare for the Theory and Methods comprehensive exams by reviewing class materials, meeting with their Doctoral Examination Committee, meeting with faculty sitting on the Theory and Methods committees, looking at copies of old exams, and doing systematic independent preparation, including coverage of the department's theory and methods required reading lists.
 - e. Successful completion of both the Theory and Methods exams is required prior to submitting the two specialty area comprehensive exams.
 - f. Each of the two specialty area comprehensive exams are in one of the student's areas of specialization. There are five acceptable formats: a literature review; an annotated bibliography; an in-class exam; a take home exam; or preparation of a course, complete with lectures. These specialty area comprehensive exams should be designed in close consultation with the student's Doctoral Examination Committee and reflect logical and substantive depth and breadth of knowledge.

- g. There are four possible grades for the comprehensive exams: Pass with Distinction; Pass; Conditional Pass with Rewrites (to be completed within two weeks of notification); or Fail.
 - h. A student must retake a failed comprehensive exam within one year 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.
 - i. All four comprehensive exams must be completed prior to the student's Dissertation Prospectus defense and advancement to candidacy.
3. Doctoral students are required to complete a minimum of 12 credits of Dissertation hours: 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 Doctoral Examination Committee.
- a. Students must establish a Doctoral Examination Committee consisting of at least three Graduate Faculty members in Sociology and one Graduate College representative from another discipline.
 - b. An approved degree program form must be filed with the Sociology Graduate Coordinator and the Graduate College by the end of the student's third semester in the program; this form must be filled out in consultation with the student's Doctoral Examination Committee.
 - c. Students must work with their Doctoral Examination Committee to ensure quality research, analysis and writing of the comprehensive exams and dissertation.
 - d. 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 examination 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.
 - e. Upon successful completion of the oral defense of the dissertation prospectus, the student may advance to candidacy and begin enrolling in dissertation credit. Upon completion of the dissertation, a final oral defense will be held in front of the student's Doctoral Examination Committee.
 - f. Committee members must unanimously pass the student on her or his oral defense for the Ph.D. to be conferred.

Course Descriptions

SOC 602 - Sociology and Literature
 SOC 603 - Techniques of Social Research
 SOC 603L - Techniques of Social Research Lab
 SOC 604 - Statistical Methods in the Social Sciences
 SOC 604L - Statistical Methods in the Social Sciences Lab
 SOC 607 - Environment and Society
 SOC 608 - Qualitative Research
 SOC 610 - Sociology of Aging
 SOC 611 - Films, Self and Society
 SOC 612 - Sociology of Art
 SOC 613 - Sociology of Sport
 SOC 614 - Popular Culture
 SOC 615 - World Population Problems
 SOC 616 - Sociology of Work and Occupations
 SOC 617 - Sociology and Leisure
 SOC 621 - Classical Social Theory
 SOC 622 - Contemporary Sociological Theory
 SOC 627 - Comparative Racial and Ethnic Relations
 SOC 628 - Special Topics in Comparative Societies
 SOC 629 - Globalization: Economic, Political, and Cultural Perspectives
 SOC 631 - Crime and Criminal Behavior
 SOC 633 - Juvenile Delinquency
 SOC 641 - Social Inequality
 SOC 642 - Sociology of Gambling
 SOC 643 - Urban Sociology
 SOC 644 - Sociology of Occupations and Professions
 SOC 645 - Men in Society
 SOC 646 - Bureaucracy in Society
 SOC 647 - Marriage and the Family
 SOC 649 - Sex and Social Arrangements
 SOC 651 - Russian Society in Transition
 SOC 652 - Sociology of Youth Cultures
 SOC 653 - Gender and Society
 SOC 655 - Social Movements and Social Change
 SOC 660 - Critical Sociology
 SOC 661 - Self and Society
 SOC 662 - Mass Communications
 SOC 665 - Collective Behavior
 SOC 666 - Sociology of Medicine
 SOC 667 - Sociology of Science
 SOC 670 - Sociology of Deviance
 SOC 671 - Race and Ethnic Relations in America
 SOC 673 - Sociology of Mental Illness
 SOC 674 - Sociology of Religion
 SOC 675 - Political Sociology
 SOC 676 - Sociology of Education
 SOC 678 - Women and Society
 SOC 681 - Sociology of Substance Use, Abuse, and Addiction
 SOC 682 - Aging and Social Policy
 SOC 684 - Sociology of Death and Dying
 SOC 688 - Architectural Sociology
 SOC 690 - Seminar

SOC 697 - Special Topics in Sociology

The above list of undergraduate courses may be used in the graduate program of study with the approval of the advisor. A full description of each may be found in the Undergraduate Catalog under the corresponding 400 number.

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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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

Note: 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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 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. Note: 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. Note: 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. Note: 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. Note: 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. Note: 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.

Note: 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. Note: May be repeated to a maximum of six credits. **Prerequisites:** Consent of instructor.

SOC 798 - Thesis

Credits 3 or 6

Note: 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.

Note: 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.

Women's Studies

The graduate faculty in Women's Studies consists of scholars who have earned their doctorates at leading graduate schools and who have decades of experience in activism as well as in academia. The graduate faculty draws on scholars whose appointments are in the Women's Studies Department and on affiliate faculty housed in many disciplinary departments in the College of Liberal Arts and beyond.

The Women's Studies Department at UNLV has developed a genuinely interdisciplinary curriculum informed by the most advanced scholarship and by feminist

pedagogical principles. Having offered an undergraduate degree program for more than a decade, Women's Studies now offers a graduate certificate that will allow students to pursue interdisciplinary study in this flourishing field and thereby enhance their educational background and career opportunities. The graduate certificate will systematically add interdisciplinary breadth to the student's program; develop expertise in women's studies theory and methodology; offer focused study of the new scholarship on gender in its intersections with race, ethnicity, class, and sexuality; and provide a professional credential to supplement other training. Students will develop sophisticated skills in critical listening, thinking, reading, writing, and speaking. Students will be prepared to engage with a broad variety of human issues by focusing on gendered experiences as they are impacted by social constructions of race, class, and sexuality.

Because we live in a time when the understanding of diversity is recognized as essential to our society, formalized course work in women's studies at the graduate level will interest two groups of students and potential students. Graduate students enrolled in master's and doctoral programs throughout the university will find that a graduate certificate in Women's Studies will enable them to study women and gender in interdisciplinary and multidisciplinary ways, complementing their discipline-focused studies in their home departments. Practitioners in the community, such as teachers, nurses, social workers, librarians, managers and administrators of nonprofit and for-profit organizations, constitute a second group for whom in-depth studies of women and gender on the graduate level will enhance both professional endeavors and personal lives. Thus, this graduate program prepares students for careers not only in education at all levels, but in social service work, health services, business, public policy, government, and nongovernmental organizations.

Admission Requirements

The certificate is open to graduate students in any discipline and in any college at UNLV and to non-degree seeking students who hold a baccalaureate degree from an accredited institution with a minimum grade point average of 3.0. In addition to being admitted to the Graduate College each applicant must show:

1. A minimum of nine undergraduate credits in women's studies, preferably including courses in feminist theory and/or methodology; or (2) demonstrable familiarity with/background in feminist theory and methodology, including a range of courses focusing on women and gender; or (3) completion of two 600-level Women's Studies or cross-listed courses on women and/or gender.
2. A minimum undergraduate grade point average of 3.00, with a grade point average of at least 3.30 in women's studies courses.

Application Process

Applicants must complete the Graduate College online application. In addition to the general requirements established by the Graduate College, the following department application materials must be uploaded into the online application:

1. A statement of purpose describing the relationship of the certificate to the student's intellectual and professional goals. Be detailed and specific. Use this as an opportunity to demonstrate writing as well as analytical skills and knowledge of women's studies. We expect an essay of 1000 words; Note: are optional.
2. Three letters of recommendation, preferably from former instructors or supervisors who can knowledgeably evaluate the student's ability to do graduate level work in women's studies.

Certificate Requirements

Candidates who have completed an advanced degree at UNLV prior to completing their certificate can petition the chair of the Women's Studies department to have their credit-requirement for the certificate reduced to 12, if they have already taken a 3-credit course that would have counted for the certificate while taking their advanced degree, and not counted that course for their advanced degree requirements.

The 15-unit Graduate Certificate consists of:

WMST 701 - Feminist Theory
WMST 702 - Principles of Feminist Inquiry
WMST 710 - Graduate Capstone Seminar
and six units of electives in graduate WMST or departmental courses cross listed with women's studies, of which at least three units must be at the 700 level.

Candidates for the certificate who are also candidates for a graduate degree may elect no more than three credits in their home discipline. Non-degree candidates may elect no more than three credits in any one department other than Women's Studies.

Course Descriptions

WMST 601 - Feminist Theories

WMST 607 - Communication Between the Sexes
WMST 618 - Language and Gender
WMST 632A - History of American Women to 1870
WMST 632B - History of American Women Since 1870
WMST 648 - Gender and Social Interaction
WMST 671 - Sexuality, Literature and the City
WMST 672 - Controversies in Gender and Race

Note: The listed 600-level undergraduate courses 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 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. **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.

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. **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. **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.

WMST 690 - Special Topics

WMST 691A - Women in the Ancient World
WMST 691B - Women in Medieval Culture and Society
WMST 692A - Women in Early Modern Europe
WMST 695 - Special Topics in Gender and History
Note: The listed 600-level undergraduate courses 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 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 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. Note: May be repeated to a maximum of six credits. Prerequisites: Consent of chair.

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 that future real, both in the creation of new knowledge through research and in the application of that knowledge in the classroom, the community and the world. 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, UNLV College of Sciences graduate students are in an environment in which learning is the common goal. 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 finding the right match between a new student and a mentor. However, even those who come to UNLV 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. The College of Sciences, through its active programs of research and teaching, has been able to assemble 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.

Wanda J. Taylor, Interim Dean

(1991), Professor; B.S., University of Minnesota; M.S., Syracuse University; Ph.D., University of Utah.

Science M.A.S.

The Master of Arts in Science (M.A.S.) is a nonthesis 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.

Program Director

Bhatnagar, Satish C.

(1974). Professor; Ph.D., University of Indiana, Bloomington.

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.

Admission Requirements

1. A bachelor's degree in any of the sciences, mathematical sciences or secondary education with at least nine upper-division science/math courses.
2. A minimum grade point average (GPA) of 2.75 for all undergraduate work.
3. Submission of official transcripts of all undergraduate work documenting the above record.
4. A completed admission application submitted to the Graduate College.
5. Three letters of recommendation prepared by persons familiar with the applicant's academic or professional record.
6. A letter of intent.

Degree Requirements

1. Completion of a total of 30 credits of regular course work of which 50% must be at 700 level. Students accepted into the Master of Arts in Science (MAS) program will be required to take at least twelve credits in one major area of one department and at least six credits each in two minor fields of science, mathematics and/or statistics from two different departments in the College.
2. At most six 700 credits outside the College but related with the major/minor may be earned after two semesters with a prior approval of the faculty advisor.
3. No grade below B- can be included in the degree program.
4. Choose either Option A, or Option B

Option A: Course Work. In addition to 30 credits completed in requirements 1 and 2, six credits must be finished at 700 level to make a total of at least 36.

Option B: Project/Paper. It covers for a maximum of six credits in a major area to make a total of at least 33 credits. It requires a project in a major area under the direction of the student's advisor or another member of the student's supervisory Committee. A written proposal must be submitted to the student's committee before the project can be initiated. This proposal should normally be submitted at the end of the second semester of study. Credit for the project will require a research paper (minimum length 30 pages).

By way of example, the project could involve working with a UNLV science researcher to learn a new technique or to contribute to a field study, or library research on an aspect of science that is new, or the design of a computer program that incorporates recent developments in graphics and software.

Upon completion of the program, the candidate will be required to pass a comprehensive oral exam administered by the supervisory committee. At the time of the oral exam, the student will present the final research paper. The committee will question the student on the project as well as on a broad base of knowledge

of major area. The committee will report the result of this exam to the Deans of the Graduate College and College of Sciences.

- Also, not more than six credits can be earned through independent studies. Graduate credits (minimum acceptable grade of B (3.00) may be transferred into the program from another accredited institution. However, at least two-thirds of the minimum number of credits required or the graduate degree must be taken at UNLV (not including credits for project/paper).

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.

Chemistry

Chair

Lindle, Dennis W.
(1991), Professor; B.S., Indiana University; Ph.D., University of California, Berkeley.

Graduate Coordinator

Hatchett, David W.
(1999), Associate Professor; B.S., California State University, Stanislaus; Ph.D., University of Utah.

Graduate Faculty

Abel-Santos, Ernesto
(2006), Associate Professor; B.S., Autonomous University of Santo Domingo, Dominican Republic; Ph.D., Washington University School of Medicine, St. Louis.

Bae, Chulsung
(2004), Assistant Professor; B.S., Inha University, Korea; M.S., University of Massachusetts, Lowell; Ph.D., University of Southern California.

Bhowmik, Pradip
(1998), Associate Professor; M.S., University of Dhaka, Bangladesh; M.S., University of Massachusetts at Dartmouth; Ph.D., University of Massachusetts at Amherst.

Czerwinski, Kenneth R.
(2003), Associate Professor; B.A., Knox College; Ph.D., University of California, Berkeley.

Gary, Ronald K.
(1999), Associate Professor; B.S., University of California, Irvine; Ph.D., Cornell University.

Heske, Clemens
(2004), Associate Professor; Diploma, TH Darmstadt, Germany; Ph.D., University of Wurzburg, Germany.

Hodge, Vernon F.
(1982), Professor; B.A., M.S., San Diego State University; Ph.D., University of California, San Diego.

Lee, Dong-Chan
(2005), Assistant Professor; B.S., M.S., Kyungpook National University, Korea; Ph.D., University of Massachusetts, Lowell.

Lindle, Dennis W.
(1991), Professor; B.S., Indiana University; Ph.D., University of California, Berkeley.

Naduvalath, Balakrishnan
(2002), Associate Professor; M.S., University of Calicut, India; Ph.D., Indian Institute of Technology, Kanpur.

UnivOrgill, MaryKay
(2003), Assistant Professor; B.S. Brigham Young University; M.S., Ph.D., Purdue University.

Robins, Kathleen A.
(1991), Associate Professor; B.S., University of Illinois, Champaign-Urbana; M.A., Ph.D., University of California, Santa Barbara.

Spangelo, Bryan L.
(1994), Professor; B.S., Keene State College; Ph.D., George Washington University Medical Center.

Steinberg, Spencer
(1989) Professor; B.A., Ph.D., University of California, San Diego.

Tirri, Lawrence J.
(1977), Assistant Professor; B.S., Fairleigh Dickinson University; Ph.D., Fordham University.

Professors Emeriti

Alsup, William M.
(1964-1991), Emeritus Associate Professor; B.S., M.E., Ph.D., University of Wyoming.

Billingham, Edward J., Jr.
(1965-1988), Emeritus Professor; B.S., Lebanon Valley College; Ph.D., Pennsylvania State University.

Earl, Boyd
(1976), Professor; B.S., University of Idaho; M.S., Ph.D., University of California, Berkeley.

Emerson, David W.
(1981-1998), Emeritus Professor; B.A., Dartmouth College; M.S., Ph.D., University of Michigan.

Grenda, Stanley C.
(1967), Associate Professor; B.S., DePaul University; M.S., University of Arizona; Ph.D., Lehigh University.

Titus, Richard L.
(1967-1997), Emeritus Professor; B.A., DePaul University; Ph.D., Michigan State University.

The Chemistry Department 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: David Hatchett (Graduate Coordinator) at (702) 895-3509. Web address: can be accessed through the UNLV home page at www.unlv.edu.

Chemistry and Biochemistry M.S.

Admission Requirements

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.

Degree Requirements

1. Required Courses
A minimum of 30 graduate credits is required, of which 10-13 must be in:
CHEM 795 - Independent Study
CHEM 798 - Thesis
CHEM 791 - Graduate Seminar
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
2. Specializations
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.
3. Research Advisor
Students are expected to select a research advisor by the end of their first semester.
4. Departmental Seminar
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 in

CHEM 791. Students are expected to attend weekly departmental seminars.

5. Student's Examination Committee
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.

Notes: 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. Chemistry Ph.D.

Admission Requirements

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. The Department of Chemistry requires all international students whose first language is not English or who have not received baccalaureate or master's degrees from an institution in which the language of instruction

is English must pass the TOEFL (Test of English as a Foreign Language) examination. Satisfactory scores for the TOEFL exam are listed in the admissions section of this catalogue.

Degree Requirements

Doctoral students in Chemistry are required to complete a minimum of 60 credit hours beyond the baccalaureate. All 60 credits hours must be completed from courses at the 700-level. For students entering the Ph.D. program with an approved M.S. degree in Chemistry or a closely related discipline, at least 30 credit hours must be completed in the Ph.D. program at UNLV comprised of courses at the 700-level.

The doctoral degree requires course work, a proposal defense, a comprehensive oral and written examination, and a written dissertation. All students are required to complete and publicly defend a dissertation describing their research. It is suggested and expected that each student publish at least one research-based manuscript in a peer-reviewed journal prior to graduation.

Students will be advised on which courses to take by the faculty within each discipline of study. It is suggested that students take between 18 – 21 credit hours of 700 level courses with additional credit hours comprised of a combination of:

- CHEM 795 - Independent Study (1-3 units)
- CHEM 799 - Dissertation (a minimum of 12 credits)
- CHEM 796 - Dissertation Prospectus (minimum, 1 credit)
- CHEM 797 - Directed Research (minimum, 1 credit)
- CHEM 791 - Graduate Seminar (5 credits, 3 presentations minimum)

The faculty in the division of study will determine if course work from the M.S. degree are comparable to existing 700 level courses offered in the Department of Chemistry. Students will be notified by the department in writing within the first semester of enrollment which courses from their M.S. degree will be accepted toward the requirements for the Ph.D. degree.

Satisfactory progress toward meeting the degree requirements is required of all candidates. Satisfactory progress is defined as, at a minimum:

1. 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.
2. 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.

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.

3. 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.
4. 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.
5. All students must prepare a dissertation proposal for a Proposal Defense Examination. The student will register for CHEM 796 Dissertation Prospectus. 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.
6. 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.

7. 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.

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.

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.

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.

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 advance to candidacy for the Ph.D. degree.

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.

Completed coursework will only be counted towards the graduation requirements of this program for six years, if the student completed a master's degree or 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.

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.

Sample Program of Study

CHEM 790 - Directed Readings
CHEM 791 - Graduate Seminar
CHEM 792 - Research Seminar
CHEM 793 - Special Topics
CHEM 795 - Independent Study
CHEM 796 - Dissertation Prospectus
CHEM 797 - Directed Research
CHEM 799 - Dissertation

Radiochemistry Ph.D.

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.

To advance to candidacy, students are required to pass an oral exam on their research and an outside topic related to radiochemistry. 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. An example class schedule for incoming students with a baccalaureate appears below. Representative program for B.A. student entering UNLV radiochemistry program:

Fall semester – Year 1 - Total Credits: 8

- RDCH 701 - Nuclear Chemistry
- RDCH 702 - Radiochemistry
- RDCH 750 - Radiochemistry Laboratory Research

Spring semester – Year 1 - Total Credits: 9

- HPS 604 Radiation Measurement and Detection (credits: 3)
- HPS 714 Radiation Detection and Radiochemistry Laboratory (credits: 3)
- HPS 750 - Radiation Risk Assessment

Fall semester – Year 2 - Total Credits: 10

- RDCH 710 - Actinide Chemistry
- HPS 670 - Environmental Health Physics
- ME 656 - Radioactive Waste Management
- CHEM 791 - Graduate Seminar

Spring semester – Year 2 - Total Credits: 7

- CHEM 655 - Instrumental Analysis
- ME 655 - Fundamentals of Nuclear Engineering

- HPS 791 - Graduate Seminar

Fall semester – Year 3 - Total Credits: 7

- RDCH 799 Doctoral Dissertation
- GEOL 708 - Radiogenic Isotope Geochemistry
- HPS 791 - Graduate Seminar

Spring semester – Year 3 - Total Credits: 6

- CHEM 799 - Dissertation
- CHEM 791 - Graduate Seminar

Fall semester – Year 4 - Total Credits: 7

- CHEM 799 - Dissertation
- CHEM 795 - Independent Study
- CHEM 791 - Graduate Seminar

Spring semester – Year 4 - Total Credits: 6

- CHEM 799 - Dissertation

Course Descriptions

Chemistry

CHEM 602 - Scientific Software for the Microcomputer

CHEM 621 - Physical Chemistry

CHEM 622 - Physical Chemistry II

CHEM 628 - Quantum Chemistry

Note: 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.

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 655 - Instrumental Analysis

CHEM 672 - Biochemistry Laboratory

CHEM 678 – Endocrinology

Note: 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.

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.

Radiochemistry

RDCH 701 - Nuclear Chemistry

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

Chair

Wells, Michael L.
(1993), Professor; B.S., University of California at Santa Cruz; M.S., Ph.D., Cornell University.

Graduate Coordinator

Yu, Zhongbo
(1999), Professor; B.S., Hohai University; M.S., University of Southern Mississippi; Ph.D., Ohio State University.

Graduate Faculty

Buck, Brenda
(1998), Associate Professor; B.S., University of Notre Dame; M.S., Ph.D., New Mexico State University.

Cline, Jean S.
(1998), Professor; B.S., Wisconsin State University; M.S., University of Arizona; Ph.D., Virginia Polytechnic Institute and State University.

Crow, H. Clay
(1993), Instrumental Analyst; B.S., California State University; M.S., UNLV; Ph.D. New Mexico Institute of Mining and Technology.

Hanson, Andrew
(2000), Associate Professor; B.S., Montana State University; M.S., San Diego State University; Ph.D., Stanford University.

Elisabeth Hausrath
(2009), Assistant Professor; B.S., Brown University; Ph.D., Pennsylvania State University.

Jiang, Ganqing
(2004), Assistant Professor; B.A., Xiangtan Mining College; M.Sc., China University of Geosciences; Ph.D., Columbia University

Kreamer, David K.
(1990), Professor; B.S., M.S., Ph.D., University of Arizona.

Lachniet, Matthew
(2003), Associate Professor; B.A., Antioch College; M.S., Michigan State University, Ph.D., Syracuse University.

Metcalf, Rodney V.
(1991), Associate Professor; B.S., M.S., University of Kentucky; Ph.D., University of New Mexico.

Mulcahy, Sean
(2008), Assistant Research Professor; B.S., Virginia Polytechnic Institute; Ph.D., University of California, Davis.

Nicholl, Michael
(2004), Professor; B.S., Eastern Michigan University; M.S., Ph.D., University of Nevada, Reno.

Nowicki, Scott
(2008), Assistant Professor in Residence; B.S., Augustana College; M.S., Ph.D., Arizona State University; .

Rowland, Stephen M.
(1978), Professor; A.B., University of California, Berkeley; Ph.D., University of California, Santa Cruz.

Simon, Adam
(2005), Assistant Professor; B.S., University of Maryland, College Park; M.S., State University of New York, Stony Brook; Ph.D., University of Maryland, College Park.

Smith, Eugene I.
(1980), Professor; B.S., Wayne State University; M.S., Ph.D., University of New Mexico.

Spell, Terry
(1996), Associate Professor; B.S., West Georgia College; M.S., New Mexico Institute of Mining and Technology; Ph.D., State University of New York, Albany.

Taylor, Wanda J.
(1991), Professor and Interim Dean; B.S., University of Minnesota; M.S., Syracuse University; Ph.D., University of Utah.

Professors Emeriti

Bachhuber, Frederick W.
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The Department of Geoscience is an active and enthusiastic department consisting of eighteen full-time faculty, approximately sixty graduate students and 80 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. Graduate students can choose one of four Geoscience emphases: Geology, Geophysics, Hydrogeology, and Soil Science. Active research by faculty and students is ongoing throughout the western United States, as well as in Antarctica, Canada, Chile, China, Costa Rica, Indonesia, France, Guatemala, Mexico, New Zealand, Panama, Poland, Russia, South Africa, Spain, and Switzerland.

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 Harry Reid Center (HRC) for Environmental Studies; 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/graduateprogram.htm>. An understanding of these documents is essential for satisfactory progress toward the degree.

Admission Requirements for M.S. and Ph.D. Degrees in Geoscience

Admission for any of the four emphases may be in the spring or fall semester. For preferential consideration, please submit materials for fall admission by February 1, and for spring semester, by October 1.

Admission and degree requirements for the Department of Geoscience are listed below. These requirements apply to all of the emphases. Note that each emphasis has requirements in addition to those listed below. Please check the section describing the emphasis of interest to you.

General Admission Requirements Common to All Geoscience Emphases

1. A B.S. degree (specific degree requirements are listed under each emphasis description). A master's degree is recommended, but not required, for admission to the Ph.D. program.
2. A minimum overall grade point average of 3.00 (on a 4.00 scale).
3. Satisfactory scores on the general Graduate Record Examination (GRE).
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 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.
6. Submission of official copies of academic transcripts.
7. Submission of an application and fees to the Graduate College.
8. All international students whose first language is not English or who have not received baccalaureate or master's degrees from an institution in which the language of instruction is English must pass the TOEFL (Test of English as a Foreign Language) examination. Satisfactory scores for the TOEFL exam are listed in the Admissions section of this catalogue.

Geosciences M.S.

Degree Requirements

A minimum of 30 credit hours beyond the undergraduate degree is required for the M.S. degree in Geoscience.

Six credits of:

GEOL 797 - Thesis

and 24 credits of course work will be counted toward the degree program, although more course and thesis credits may be taken. Of the 24 required course credits, at least 12 credits must be in 700-level courses and include:

GEOL 701 - Research Methods in Geoscience and
GEOL 795 - Poster Presentation and Time Management.
GEOL 701 and **795** must be taken during the first year of enrollment.

Credits taken at other institutions will be considered for transfer, however, at least 16 of the 24 course credits required for the degree must be taken at UNLV.

Students must confer with their appointed advisor prior to enrollment in their first semester. An approved degree program and 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.

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. Specific grade requirements are slightly different for M.S. students than they are for Ph.D. students: consult the Geoscience Graduate Student Guidelines at <http://geoscience.unlv.edu/graduatestudentguidelines.htm> for full details.

Geoscience Emphasis M.S. and PhD

Emphasis in Geology

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. Students must satisfy all of the general degree and admission requirements in addition to those listed below.

Admission requirement in addition to those listed above for the Master of Science and Ph.D. degrees:

1. A bachelor's degree in geology or equivalent. A Master of Science degree in geology or equivalent is recommended for the Ph.D. applicants, but not required.
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.

Emphasis in Geophysics

Admission requirements in addition to those listed above for the Master of Science and Ph.D. degrees:

1. A bachelor's degree in geology, engineering, physics or mathematics. A Master of Science degree is recommended for Ph.D. applicants, but not required.
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.

Mathematics: Three semesters of calculus

Physics: Two semesters of introductory (calculus level) physics

Geology: Physical geology, historical geology, mineralogy, structural geology, sedimentology/stratigraphy, and igneous and metamorphic petrology.

Degree requirements in addition to those listed above for the Master of Science and Ph.D. degrees.

Required Graduate Courses

In addition, each student must take at least three courses from the list below. The remaining credits can be obtained from the list below or other Geoscience graduate-level courses that are appropriate for the course of study.

GEOL 645 - Geophysical Methods
CEE 636 - Engineering Geophysics
ECG 780 - Digital Signal Processing
GEOL 793 - Independent Study and Research

Elective Graduate Courses

GEOL 630 - Geographic Information Systems (GIS):
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
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

Emphasis in Soil Science

Admission requirements in addition to those listed above for the Master of Science and Ph.D. degrees:

1. A 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. A Master of Science degree is recommended for Ph.D. applicants, but not required.
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.

Degree requirements in addition to those listed above for the Master of Science and Ph.D. degrees.

Required Graduate Courses

GEOL 610 - Soil Classification and Resource Management
GEOL 786 - Soils Applications: Paleoclimate, Neotectonics,

Elective Credit

Remaining credits can be obtained from the list below or other graduate-level courses that are appropriate for the course of study and approved by the student's committee.

GEOL 646 - Geologic Applications in Remote Sensing
GEOL 716 - Geostatistics
GEOL 735 - Seminar in Environmental Geology
GEOL 744 - Tectonics and Structures
GEOL 760 - Advanced Spatial Modeling with GIS
GEOL 770 - Sedimentary Basins
GEOL 776 - Paleosols Records of Past Landscapes
GEOL 688 - Microtechniques in Geoscience

Emphasis in Hydrogeology

Admission requirements in addition to those listed above for the Master of Science and Ph.D. degrees:

1. B.S. or master's degree in geology or a related discipline (e.g., civil engineering). A Master of Science degree is recommended for Ph.D. applicants, but not required.
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

Degree requirements in addition to those listed above for the Master of Science and Ph.D. degrees.

Elective Graduate Courses

Course credits can be obtained from the list below or other graduate level courses that are appropriate for the course of study and approved by the student's committee.

GEOL 630 - Geographic Information Systems (GIS):
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

Geosciences Ph.D.

Degree Requirements

The doctoral degree requires course work, a proposal defense, an oral qualifying examination, and a written dissertation, which may consist of three or more publishable papers. A minimum of 60 credits past the baccalaureate or bachelor's degree is required. Students entering the Ph.D. program with an M.S. degree in geology or a related field will be awarded 24 credits toward the Ph.D. Credits taken at another institution will be considered for transfer; however, at least two-thirds of the minimum number of credits required for the degree, not including dissertation credits, must be taken at UNLV.

Course selection is based on the student's research objectives. The student, the advisor and the doctoral advising committee will design the degree program. All Ph.D. students must take at least 12 credits of:

GEOL 799 - Dissertation. The 60 credits required of those students entering the program with a B.S. must include at least 24 course credits at the 700 level. The 36 credits required of those students entering the program with an M.S. degree must include at least 12 course credits at the 700 level. In both cases the 700-level courses must include:

GEOL 701 - Research Methods in Geoscience; remaining courses may be at the 600 or 700 level. Although more course work and dissertation credits may be taken, only 12 credits of GEOL 799, and 48 course credits for those entering the program with a B.S. or 24 course credits for those entering the program with an M.S. will be counted toward the degree program.

Doctoral students are encouraged to take courses from outside of geoscience; however, a minimum of 15 credits

must be geoscience (GEOL) courses. A maximum of three credits of Independent Study:

GEOL 793 - Independent Study and Research 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.

A dissertation advisor must be chosen by the end of the first semester, and the doctoral advising 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. 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.

A typical Ph.D. student will spend four years completing the required course work and research, and the department and advisor will strive to provide four academic years of support. During this time, the student must be a teaching assistant or instructor for at least one semester. Satisfactory progress toward meeting the degree requirements is required of all candidates. Satisfactory progress is defined as, at a minimum:

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.

6. 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.
7. 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.

Geoscience Emphasis M.S. and PhD

Emphasis in Geology

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. Students must satisfy all of the general degree and admission requirements in addition to those listed below.

Admission requirement in addition to those listed above for the Master of Science and Ph.D. degrees:

1. A bachelor's degree in geology or equivalent. A Master of Science degree in geology or equivalent is recommended for the Ph.D. applicants, but not required.
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.

Emphasis in Geophysics

Admission requirements in addition to those listed above for the Master of Science and Ph.D. degrees:

1. A bachelor's degree in geology, engineering, physics or mathematics. A Master of Science degree is recommended for Ph.D. applicants, but not required.
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.

Mathematics: Three semesters of calculus

Physics: Two semesters of introductory (calculus level) physics

Geology: Physical geology, historical geology, mineralogy, structural geology, sedimentology/stratigraphy, and igneous and metamorphic petrology.

Degree requirements in addition to those listed above for the Master of Science and Ph.D. degrees.

Required Graduate Courses

In addition, each student must take at least three courses from the list below. The remaining credits can be obtained from the list below or other Geoscience graduate-level courses that are appropriate for the course of study.

GEOL 645 - Geophysical Methods

CEE 636 - Engineering Geophysics

ECG 780 - Digital Signal Processing

GEOL 793 - Independent Study and Research

Elective Graduate Courses

GEOL 630 - Geographic Information Systems (GIS):

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
 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

Emphasis in Soil Science

Admission requirements in addition to those listed above for the Master of Science and Ph.D. degrees:

1. A 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. A Master of Science degree is recommended for Ph.D. applicants, but not required.
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.

Degree requirements in addition to those listed above for the Master of Science and Ph.D. degrees.

Required Graduate Courses

GEOL 610 - Soil Classification and Resource Management
 GEOL 786 - Soils Applications: Paleoclimate, Neotectonics,

Elective Graduate Courses

Remaining credits can be obtained from the list below or other graduate-level courses that are appropriate for the course of study and approved by the student's committee.

GEOL 630 - Geographic Information Systems (GIS):
 GEOL 646 - Geologic Applications in Remote Sensing
 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
 BIOL 745 - Arid Zone Soils
 GEOL 760 - Advanced Spatial Modeling with GIS
 GEOL 770 - Sedimentary Basins
 GEOL 776 - Paleosols Records of Past Landscapes
 GEOL 688 - Microtechniques in Geoscience
 BIOL 618 - Microbial Ecology

Emphasis in Hydrogeology

Admission requirements in addition to those listed above for the Master of Science and Ph.D. degrees:

1. B.S. or master's degree in geology or a related discipline (e.g., civil engineering). A Master of Science degree is recommended for Ph.D. applicants, but not required.
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

Degree requirements in addition to those listed above for the Master of Science and Ph.D. degrees.

Elective Graduate Courses

Course credits can be obtained from the list below or other graduate level courses that are appropriate for the course of study and approved by the student's committee.

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

Course Descriptions

GEOG 621 - Climatology

Credits 3

Physical characteristics of the atmosphere. World climatic classification. Local atmospheric field study. **Prerequisites:** GEOG 103 or consent of instructor.

GEOL 610 - Soil Classification and Resource Management
 GEOL 620 - Introduction to X-ray Diffraction and X-ray Spectrometry Methods
 GEOL 629 - Geochemical Thermodynamics and Kinetics
 GEOL 630 - Geographic Information Systems (GIS):
 Theory and Applications

GEOL 633 - Glacial and Periglacial Geology
GEOL 634 - Quaternary Geology
GEOL 636 - Quaternary Paleocology
GEOL 637 - Paleoclimatology
GEOL 640 - Volcanology
GEOL 643 - Plate Tectonics
GEOL 644 - Tectonics of Orogenic Belts
GEOL 645 - Geophysical Methods
GEOL 645L - Geophysical Methods Lab
GEOL 646 - Geologic Applications in Remote Sensing
GEOL 646L - Geologic Applications in Remote Sensing Lab
GEOL 649 - Geochronology
GEOL 671 - Petroleum Geology
GEOL 674 - Hydrogeology
GEOL 677 - Geology of Metallic Ore Deposits
GEOL 678 - Hydrogeochemistry
GEOL 685 - Engineering Geology
GEOL 688 - Microtechniques in Geoscience

Note: 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 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 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:** 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 Thermochemistry

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 ¹⁴C 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 taxation

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 Hydrosience

Credits 1 – 3

Specialized topics in hydrosience.

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 student's degree program. Grading S/F grade

Prerequisites: Successful completion of qualifying examination and approval by department.

School of Life Sciences

Director

Bazylinski, Dennis A.

(2006), Professor; Ph.D., University of New Hampshire, Durham.

Graduate Coordinator

Andres, Andrew J.

(2002), Associate Professor; Ph.D., Indiana University, Bloomington.

Graduate Faculty

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(1997), Associate Professor; Ph.D., York University, Toronto, Canada.

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Gibbs, Allen G.

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Lee, David V.

(2007), Assistant Professor; Ph.D., University of Utah.

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(1998), Associate Professor; Virginia Polytechnic and State University, Blacksburg.

Reiber, Carl L.

(1993), Professor; Ph.D., University of Massachusetts, Amherst.

Riddle, Brett R.

(1990), Professor; Ph.D., University of New Mexico, Albuquerque.

Robleto, Eduardo A.

(2002), Associate Professor; Ph.D., University of Wisconsin, Madison.

Rodríguez-Robles, Javier A.

(2002), Associate Professor; University of California, Berkeley.

Schulte, Paul J.

(1990), Associate Professor; Ph.D., University of Washington, Seattle.

Shen, Jeffery Q.

(2000), Associate Professor; Ph.D., Washington University, St. Louis.

Smith, Stanley D.

(1985), Professor; Ph.D., Arizona State University, Tempe.

Stark, Lloyd R.

(1999), Associate Professor; Ph.D., Pennsylvania State University, University Park.

Starkweather, Peter L.

(1978), Professor; Dartmouth College, Hanover, New Hampshire.

Thompson, Daniel B.

(1990), Associate Professor; Ph.D., University of Arizona, Tucson.

van Breukelen, Frank

(2002), Associate Professor; Ph.D., University of Colorado, Boulder.

Walker, Lawrence R.

(1992), Professor; Ph.D., University of Alaska, Fairbanks.

Wing, Helen J.

(2005), Assistant Professor; Ph.D., University of Birmingham, Edgbaston, United Kingdom.

Professors Emeriti

Babero, Bert B.

(1965-1987), Emeritus Professor; Ph.D., University of Illinois.

Deacon, James E.

(1960-2002), Emeritus Distinguished Professor; Ph.D., University of Kansas, Lawrence.

Murvosh, Chad M.

(1964-1992), Emeritus Professor; Ph.D., Ohio State University, Columbus.

Niles, Wesley E.

(1968-2002), Emeritus Professor; Ph.D., University of Arizona, Tucson.

Yousef, Mohamed K.

(1968-1994), Emeritus Distinguished Professor; Ph.D., University of Missouri.

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; 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 and SoLS DNA Sequencing Facility (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 Nevada Center for Biological Imaging (which houses a Zeiss LSM-510 confocal laser scanning microscopy system mounted on either upright or inverted Zeiss microscope bodies); 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 contribute to 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.

Admission Requirements to the M.S. and Ph.D. Programs in the School of Life Sciences

1. A baccalaureate (B.S., B.A.) degree in biological sciences or its equivalent.
 2. A minimum grade point average (GPA) of 3.00 (on a 4.00 scale) for all undergraduate work.
 3. Satisfactory scores on the General Graduate Record Examination (GRE). Successful applicants to the program generally have scores among the upper 50th percentile of examinees taking the GRE.
 4. Letters of recommendation (two letters for the M.S. Program; three letters for the Ph.D. Program) from individuals familiar with the applicant's academic record and potential for advanced study in the biological sciences.
 5. A written statement that includes:
 - a. summary of research interests
 - b. reason(s) for wishing to earn an advanced degree
 - c. motivation for attending UNLV
 - d. possible faculty mentors
 6. Submission of official transcripts of all colleges and universities attended.
 7. Submission of a completed application form and payment of fees required by the Graduate College.
 8. All international students whose first language is not English or who have not received baccalaureate or Master's degrees from an institution in which the language of instruction is English must take the TOEFL (Test of English as a Foreign Language) examination.
- 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>.

Biological Sciences M.S.

Degree Requirements

Specific degree requirements, including those listed below, are described in detail in the School of Life Sciences' on-line Graduate Student Handbook <http://sols.unlv.edu/gradhandbook.html>.

1. Master's students are required to complete a minimum of 30 credit hours beyond their undergraduate degree. At least 18 of these hours must be completed at the 700-level. All students must take:
BIOL 701 - Ethics in Scientific Research, preferably during their first year in residence. All students must also take at least six (6) credits of:
BIOL 796 A-D - Graduate Seminar and at least six (6) credits of:
BIOL 797 - Thesis during their residency in the Program.
2. In addition to the aforementioned general requirements, students must complete the specific 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/gradhandbook.html> for specific requirements.

3. 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.
4. 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.
5. 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.
6. 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.
7. Students must form an Advisory Committee before the end of their first semester in the Graduate Program. 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).
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/gradhandbook.html> for submitting required paperwork to the Graduate College.
11. 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.
12. 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.

13. Students are expected to complete all the requirements for the Master's degree in 2-3 years.

Master's students may be withdrawn from the Program and separated from the Graduate College if they fail to fulfill any of the requirements for the degree within the specified timeline. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/gradhandbook.html> for specific requirements.

Biological Sciences Ph.D.

Degree Requirements

Specific degree requirements, including those listed below, are described in detail in the School of Life Sciences' on-line Graduate Student Handbook <http://sols.unlv.edu/current.html>.

1. Doctoral students are required to complete a minimum of 60 credit hours beyond their undergraduate degree, unless they are entering the program with a master's degree from another institution (see below). At least 36 of these hours (18 for a student with an awarded M.S. degree) must be completed at the 700-level. All students are expected to take:
BIOL 701 - Ethics in Scientific Research, preferably during their first year in residence. All students must also take at least six (6) credits of:
BIOL 796 A-D - Graduate Seminar and at least six (6) credits of:
BIOL 799 - Dissertation during their residency in the Program. BIOL 799 may be repeated for credit as needed, but only 18 credits may be counted towards the 60 credit hour minimum graduation requirement.
2. In addition to the aforementioned general requirements, students must complete the specific 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.
3. 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.
4. Students entering the Doctoral Program with an M.S. degree from another institution must complete at least 30 credit hours at UNLV. The reduction from the 60-

credit minimum will only occur if course work completed for the M.S. degree is relevant to the student's doctoral degree, and as such the completed work must be unanimously approved by the student's research advisory committee for the reduction to be granted. No Thesis or Dissertation units can be applied toward the reduction of the 60-credit minimum.

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 end of his/her first semester in the Graduate Program. 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.
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 end of their fifth semester of residency in the Graduate Program. The exam must be held at least three (3) weeks before the last day of instruction of any given term. 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. 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. 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 withdrawn from the Program and separated from the Graduate College.

12. Doctoral students are advanced to candidacy after passing their comprehensive examination and successfully completing a minimum of 36 credits required by the Section to which they belong. 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.
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.
16. Students are expected to complete all the requirements for the Ph.D. degree in 5-6 years.

Doctoral students may be withdrawn from the Program and separated from the Graduate College if they fail to fulfill any of the requirements for their degree within the specified timeline. See SoLS's Graduate Student Handbook <http://sols.unlv.edu/current.html> for specific requirements.

Course Descriptions

BIOL 604 - Principles of Neurobiology
BIOL 607 - Molecular Biology
BIOL 609 - Virology
BIOL 611 - Molecular Evolution
BIOL 618 - Microbial Ecology
BIOL 622 - Taxonomy of Vascular Plants
BIOL 625 - Genomics
BIOL 626 - Plant Anatomy
BIOL 631 - Ichthyology
BIOL 632 - Herpetology
BIOL 633 - Ornithology
BIOL 634 - Mammalogy
BIOL 641 - Field Ecology
BIOL 642 - Principles of Plant Physiology
BIOL 644 - Principles of Plant Ecology
BIOL 645 - Cell Physiology

BIOL 647 - Comparative Animal Physiology
BIOL 648 - Endocrinology
BIOL 653 - Immunology
BIOL 660 - Microbial Physiology
BIOL 664 - Bacterial Pathogenesis
BIOL 665 - Vertebrate Embryology
BIOL 668 - Histology
BIOL 670 - Topics in Applied Microbiology
BIOL 671 - Aquatic Ecology
BIOL 672 - Limnology
BIOL 680 - Introduction to Biological Modeling
BIOL 685 - Microbial Genetics
BIOL 687 - Principles of Systematics
BIOL 689 - Developmental Genetics
BIOL 690 - Biogeography

Note: 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 701 - Ethics in Scientific Research

Credits 1

Examination of ethical problems in scientific research, including the falsification and manipulation of data, public access and peer review, and decisions concerning research problems and support. **Prerequisites:** Graduate standing.

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

Chair

DuBose, Derrick A.

(1987), Associate Professor; B.A., California State University, Long Beach; M.A., Ph.D., University of California, Los Angeles.

Graduate Coordinator

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(1994), Associate Professor; B.S., University of Wisconsin, Madison; M.A., University of California, Berkeley; Ph.D., University of California, Los Angeles.

Graduate Faculty

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(2007), Assistant Professor; B.S., Inner Mongolia University; M.S., University of Science and Technology of China; Ph.D., Washington University.

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Bachman, Gennady

(1991), Professor; B.A., Temple University; Ph.D., University of Illinois.

Baragar, Arthur

(1997), Associate Professor; B.S., University of Alberta; Ph.D., Brown University.

Bellomo, Carryn

(2003), Associate Professor; B.S., M.S., Ph.D., Old Dominion University.

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(1974) Professor; B.A. (honor), M.A., Panjab University, India; M.A., Ph.D. Indiana University.

Catlin, Sandra

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(1999), Associate Professor; B.A., Korea University; M.A., Ph.D., University of California, Santa Barbara.

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(1985), Associate Professor; B.S., University of Ceylon; M.S., Ph.D., Southern Illinois University at Carbondale.

Ding, Zhonghai

(1995), Professor; B.S., Nanjing Institute of Technology; M.S., Institute of Systems Science; Ph.D., Texas A&M University.

Ghosh, Kaushik

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Ho, Chih-Hsiang

(1986), Professor; B.S., National Central University; M.S., New Mexico Highlands University; M.S., Ph.D., University of Minnesota.

Li, Jichun

(2000), Associate Professor; B.S., M.S., Nanjing University, China; Ph.D., Florida State University.

Li, Xin
(1992), Associate Professor; B.S., M.S., Jilin University, Changchun; Ph.D., Texas A&M University.

Marcozzi, Michael
(1997), Associate Professor; B.S., M.S., Ph.D., University of Delaware.

Muleshkov, Angel
(1989), Associate Professor; M.S., Ph.D., University of Washington.

Neda, Monika
(2007), Assistant Professor; B.S., University of Novi Sad; Ph.D., University of Pittsburgh.

Phanord, Dieudonne D.
(2002), Professor; B.S., Gordon College; M.S., Ph.D., University of Illinois, Chicago.

Salehi, Ebrahim
(1985), Associate Professor; B.S., University of Tehran; M.S., Institute of Mathematics, Tehran; M.S., Ph.D., University of Washington.

Robinette, Michelle
(1996), Associate Professor; B.S., M.A., Ph.D., Western Michigan University.

Shiue, Peter
(1985), Professor; B.S., National Taiwan Normal University; M.S., Ph.D., Southern Illinois University.

Sun, Pengtao
(2007), Assistant Professor; B.S., M.S., Shandong University; Ph.D. Institute of Mathematics, Academia Sinica.

Tehrani, Hossein
(1997), Associate Professor; B.S., Sharif University of Technology; M.S., Ph.D., Courant Institute of Mathematical Sciences.

Westveld, Anton H.
(2007), Assistant Professor; B.A., M.A., University of Michigan; Ph.D., University of Washington.

Yang, Hongtao
(2007), Assistant Professor; B.S., M.S., Jilin University; Ph.D., University of Alberta.

Professors Emeriti

Aizely, Paul
(1968-2008), Professor; B.A., Harvard University; M.S., University of Arizona; Ph.D., Arizona State University.

Bowman, Harold
(1972-1999), Emeritus Associate Professor; B.E.E., City College of New York; M.A., Oklahoma University; Ph.D., Arizona State University.

Graham, Malcolm
(1956-1985), Emeritus Professor; B.S., New Jersey State College; M.S., University of Massachusetts; Ed.D., Columbia University.

Miel, George, J.
(1977-1985 & 1991-2006), Emeritus Professor; B.S., M.S., University of Illinois; Ph.D., University of Wyoming.

Nietling, Lloyd
(1967-1992), 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.

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, 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.

Mathematical Sciences M.S.

Admission Requirements

Admission to the M.S. Program in Mathematical Sciences requires that an applicant has 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. If applicable, international applicants must submit an official TOEFL score (minimum score of 79 for the IBT, 213 for the computer test, or 550 for the paper test). To apply for admission to the M.S. 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;
3. the official TOEFL score if applicable.

Secondly, applicants must submit to the Department the following materials:

1. copies of all official 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 completed application form for Graduate Assistantship, if interested;
4. 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 M.S. Program can be found on the Department's web site.

Degree Requirements

A minimum of 30 credits of graduate work is required for the M.S. in Mathematical Sciences, including at least 27 hours of course work. At least 18 of the 27 credits must be at the 700 level. The following specific requirements must be met:

Pure Mathematics Concentration

1. Core Requirement: Six credits of analysis drawn from the list below plus three credits of algebra at the 700 level.
 - 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
2. Six credits of MAT course work at the 700 level in a field of special interest to the student, excluding those credits used to meet the core requirement.
3. Six credits for thesis or additional six credits of MAT course work at the 700 level.
4. Final Examination: This will be either an examination to defend the thesis or a written comprehensive examination based on requirements 1 and 2.

Applied Mathematics Concentration

1. Core Requirement: Six credits of analysis drawn from:
 - 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

and three credits of numerical analysis drawn from:

- MAT 663 - Advanced Matrix Theory and Applications
 - MAT 765 - Advanced Numerical Analysis
 - MAT 767 - Topics in Numerical Analysis
2. Six credits of MAT course work at the 700 level in applied and computational mathematics, excluding those credits used to meet the core requirement.

3. Six credits of thesis or additional six credits of MAT course work at the 700 level.
4. Final Examination: This will be either an examination to defend the thesis or a written comprehensive examination based on requirements 1 and 2.

Statistics Concentration

1. Mathematics Requirement: Six credits consisting of the following courses:
 - MAT 657 - Introduction to Real Analysis I
 - MAT 663 - Advanced Matrix Theory and Applications
 This above requirement may be waived for students who have taken MAT 457 and MAT 463 with a grade of B or above.
2. Core Requirement: Twelve credits of the following
 - STA 761 - Regression Analysis I
 - STA 762 - Regression Analysis II
 - STA 767 - Mathematical Statistics I
 - STA 768 - Mathematical Statistics II
3. Six credits of STA course work at the 700 level in a field of special interest to the student, excluding those credits used to meet the core requirement.
4. Six credits for thesis or additional six credits of STA courses at the 700 level in the appropriate area of specialization.
5. Final Examination: This will be either an examination to defend the thesis or a written comprehensive examination based on requirement 2.

Teaching Mathematics Concentration

1. Mathematics Requirement: A total of eighteen credits including nine credits from:
 - MAT 711 - Survey of Mathematical Problems I
 - MAT 712 - Survey of Mathematical Problems II
 - MAT 714 - History of Mathematics

three credits in algebra selected from:

- 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

three credits in analysis selected from:

- 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

and three credits in foundations selected from:

- 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
2. Education Requirement: Six credits in education from:
 - CIS 622 - Instructional Middle School Mathematics Education
 - CIS 624 - Instruction Secondary Mathematics Education
 - CIG 620 - Principles of Learning Mathematics
 3. Three credits for professional paper or additional six credits of MAT or STA course work at the 700 level.
 4. Final Examination: This will be either an examination to defend the professional paper or a written comprehensive examination designed and administered by the Student Advisory Committee.

Note: MAT 711 and 712 do not count as graduate credits toward a M.S. in Mathematical Sciences with concentration in pure mathematics, applied mathematics, or statistics.

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.

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/dissertation, must be earned at UNLV after admission to a graduate degree program.

Mathematical Sciences Ph.D.

Admission Requirements

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 of 700 in the quantitative part. If applicable, international applicants must submit an official TOEFL score (minimum score of 79 for the IBT, 213 for the computer test, or 550 for the paper test).

To apply for admission to the Ph.D. Program, applicants must submit application material 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;
3. the official GRE General Test score;
4. the official TOEFL score if applicable;

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. a completed application for Graduate Assistantship, if interested;
4. 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.

Degree Requirements

1. Credit requirement. The doctoral students entering the program with a Bachelor's degree are required to complete a minimum of 60 credits of course work, at least 36 of which must be at the 700-level. The doctoral students entering the program with an M.S. degree are required to complete at least 30 credits of course work, at least 18 of which must be at the 700-level. Each doctoral student must complete a dissertation embodying the results of original research which is acceptable to the student's advisory committee. A student must enroll in a minimum of 18 credits of Dissertation. A maximum of 24 credits of Dissertation can be counted toward the Ph.D. degree.
2. 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 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. Doctoral students must pass the Qualifying Examination within three years. For each concentration, the Qualifying Examination consists of two parts, which are based on:

Applied Mathematics

Part I: MAT 707-708 or MAT 709-710

Part II: MAT 771-772

Computational Mathematics

Part I: MAT 707-708 or MAT 709-710

Part II: MAT 765-766

Pure Mathematics

Part I: MAT 707-708 or MAT 709-710

Part II: MAT 703-704

Statistics

Part I: STA 767-768

Part II: STA 761-762

A student who fails the Qualifying Examination on the first attempt must complete a second examination within the next twelve months. A student who entered the program with a Bachelor's degree and 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. A student who fails the Qualifying Examination a second time and who entered the Doctoral Program with an M.S. degree in Mathematical Sciences will be separated from the program.

3. 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. Students are required to choose two one-year course sequences based on the following list:

Applied Mathematics

MAT 703-704, MAT 723-724, MAT 729-730, MAT 733-734, MAT 765-766, STA 767-768.

Computational Mathematics

MAT 703-704, MAT 723-724, MAT 729-730, MAT 733-734, MAT 771-772, STA 767-768.

Pure Mathematics

MAT 701-702, MAT 717-718, MAT 723-724, MAT 733-734, MAT 771-772, STA 767-768.

Statistics

STA 713 & 715, STA 750-751, STA 755-756, STA 753 & 765, STA 763-764, MAT 707 & STA 731.

4. Comprehensive Examination. 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. 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.

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. 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. 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.

5. Dissertation. 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.
6. Additional Requirements. 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.
7. 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.

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.

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.

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.

Course Descriptions

Mathematics

MAT 651 - Foundations of Mathematics I
MAT 652 - Foundations of Mathematics II
MAT 653 - Abstract Algebra I
MAT 654 - Abstract Algebra II
MAT 655 - Elementary Theory of Numbers I
MAT 656 - Elementary Theory of Numbers II
MAT 657 - Introduction to Real Analysis I
MAT 658 - Introduction to Real Analysis II
MAT 659 - Elementary Complex Analysis
MAT 661 - Probability Theory
MAT 662 - Stochastic Processes
MAT 663 - Advanced Matrix Theory and Applications
MAT 665 - Numerical Analysis I
MAT 666 - Numerical Analysis II
MAT 668 - Applied Finite Element Analysis
MAT 669 - Combinatorics I
MAT 670 - Combinatorics II
MAT 680 - College Geometry
MAT 683 - General Topology I
MAT 684 - General Topology II
MAT 687 - Introduction to Partial Differential Equations
MAT 689 - Advanced Mathematical Topics
MAT 690 - Independent Study

Note: The 600-level courses listed above, 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 701 - Foundations of Mathematics III

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 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 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 24 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.

Statistics

STA 663 - Applied Statistics for Engineers
STA 667 - Introduction to Mathematical Statistics
STA 669 - Environmental Statistics I: Univariate Methods
STA 689 - Advanced Statistics Topics
STA 690 - Independent Study
STA 691 - Statistics for Scientists I
STA 692 - Statistics for Scientists II
STA 693 - Applied Regression Analysis
STA 695 - Nonparametric Statistics

Note: The courses above, 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 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 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 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 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: 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

Chair

Pang, Tao

(1991), Professor; B.S., Fudan University; Ph.D., University of Minnesota.

Graduate Coordinator

Spight, Lon D.

(1970), Associate Professor; B.S., M.S., Colorado State University; Ph.D., University of Nevada, Reno.

Graduate Faculty

Chen, Changfeng

(1990), Professor; B.S., Ph.D., Peking University.

Cornelius, Andrew

(1999), Associate Professor; B.S., Drake University; Ph.D., Washington University.

Farley, John W.

(1987), Professor; B.A., Harvard College; M.A., Ph.D., Columbia University.

Kwong, Victor H.

(1984), Professor; B.S., Queen's University; M.S., University of Windsor; Ph.D., University of Toronto.

Lepp, Stephen H.

(1991), Professor; B.S., University of Minnesota; M.A., Ph.D., University of Colorado, Boulder.

Nagamine, Kentaro

(2006), Assistant Professor; B.S., University of Tokyo; M.A., Ph.D., Princeton University.

Pravica, Michael

(2003), Associate Professor; B.S., Cal Tech; A.M., Ph.D., Harvard University.

Proga, Daniel

(2005), Associate Professor; M.S., Nicolaus Copernicus University; Ph.D. Nicolaus Copernicus Astronomical Center.

Rhee, George

(1993), Associate Professor; B.A., Cambridge University; M.Sc., Leiden University; M.A., Cambridge University; Ph.D., Leiden University.

Selser, James C.

(1981), Professor; B.S., U.S. Air Force Academy; M.S., Ph.D., University of California, Davis.

Shelton, David P.

(1988), Professor; B.A., M.S., Ph.D., University of Manitoba.

Smith, Diane Pyper

(1980), Associate Professor; A.B., University of California, Berkeley; Ph.D., University of California, Santa Cruz.

Zane, Len

(1973), Professor; B.S., City College of New York; Ph.D., Duke University.

Zhang, Bing

(2004), Associate Professor; B.S., M.S., Ph.D., Peking University.

Zygelman, Bernard

(1990), Professor; B.S., City College of New York; Ph.D., City University of New York.

Professor Emeritus

Weistrop, Donna E.

(1990-2005), Emeritus Professor; B.A., Wellesley College; Ph.D., California Institute of Technology.

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.

Astronomy M.S.

Admission Requirements

Applicants must have an undergraduate degree in Physics, Astronomy or other related area. 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.

Degree Requirements

There are two options, Thesis and Non-Thesis that may be used to receive a M.S. in Astronomy Degree. The completion requirements for each are as follows:

Completion Requirements for the Thesis Option

A minimum of 30 graduate credits is required, including a minimum of 15 credits (excluding thesis) in 700-level astronomy or physics courses and six hours of research for thesis credit. A final oral exam is required on course work and thesis. A GPA of 3.00 or better is required in all course work which is part of the degree program.

Completion Requirements for the Non-Thesis Option

A minimum of 30 graduate credits past the bachelor's level is required, including the following:

1. A Minimum 30 graduate level semester credits in physics, astronomy or related fields (excluding thesis and graduate seminar). At least 15 credits of 700 level astronomy or physics courses. A GPA of 3.00 or better in all course work which is part of the degree program. The program must also include the following core courses:

AST 713 - Astrophysics I

AST 714 - Astrophysics II

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

2. Satisfactory Performance

On an astronomy qualifying examination on graduate astronomy knowledge at the master's level.

Astronomy Ph.D.

Admission Requirements

Applicants must have an undergraduate degree or a Masters degree in Physics, Astronomy or related area. 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. In addition, 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. 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.

Degree Requirements

A total of 60 graduate credits past the bachelor's level is required, including the following:

1. A minimum of 36 graduate level semester credits in astronomy or related fields (excluding doctoral dissertation and graduate seminar), which must include the following core courses:

AST 713 - Astrophysics I

AST 714 - Astrophysics II

PHYS 702 - Classical Mechanics I

PHYS 721 - Quantum Theory I

PHYS 482/682 and graduate standing.

PHYS 711 - Electromagnetic Theory I

PHYS 700 - Mathematical Physics I

AST 710 - Observational Astronomy Techniques

AST 721 - Astrophysics of Gaseous Nebulae and Active

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

2. Six credits of PHYS 796 - Graduate Seminar including three acceptable presentations by the student.
3. A minimum of 18 semester credits of:PHYS 799 - Doctoral Dissertation
4. Satisfactory performance on an astronomy qualifying examination on graduate astronomy knowledge. This requirement must be fulfilled by the second year in the program.
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.

Notes: A student who enters the doctoral program with a Master's degree must satisfy all of the above requirements numbered 1-6. The exact number of graduate semester credit hours past the Master's level will depend upon the quality of the student's preparation and the rate of progress during research. All courses used to satisfy the course work requirements (listed as 1. above) must have the approval of the Department. The number of graduate credits beyond the Master's level must be at least 30; typically it will be more.

Physics M.S.

Admission Requirements

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. The applicant must have completed 18 semester credits of upper-division undergraduate physics.

Degree Requirements

A minimum of 30 graduate credits is required including a minimum of 15 credits (excluding thesis) in 700-level courses and six hours of research for thesis credit. A final oral exam is required on course work and thesis. A GPA of 3.00 or better is required on all course work that is part of the degree program.

Physics Ph.D.

Admission Requirements

Applicants must meet the usual admission requirements of the Master of Science program at UNLV. In addition, 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. 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.

Degree Requirements

A total of 60 graduate credits past the bachelor's level, including the following:

1. A minimum of 36 graduate-level semester credits in physics or related fields (excluding doctoral dissertation and graduate seminar), which must include the following core courses:
 - PHYS 711 - Electromagnetic Theory I
 - PHYS 712 - Electromagnetic Theory II
 - PHYS 721 - Quantum Theory I
 - PHYS 722 - Quantum Theory II
 - PHYS 700 - Mathematical Physics ISix of the 36 credits must be taken in the fourth or fifth year. Course work used to satisfy the requirements for a master's degree may be included. 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. Course work taken outside the Physics Department must have departmental approval.
2. Six credits of PHYS 796 - Graduate Seminar including three acceptable presentations by the student
3. A minimum of 18 semester credits of: PHYS 799 - Doctoral Dissertation
4. Satisfactory performance on a written qualifying examination on advanced undergraduate physics and a satisfactory score on the GRE Advanced Physics examination. Successful candidates to the doctoral program must have satisfactory scores (generally 50 percent or better) on the GRE Advanced Physics test. Both of these requirements must be fulfilled during the first two years in the graduate program.
5. A dissertation of high quality.
6. Satisfactory performance on a final examination that will consist of an oral defense of the dissertation.

Notes: A student who enters the doctoral program with a master's degree must satisfy all of the above requirements numbered 1-6. The exact number of graduate semester credit hours past the master's degree will depend upon the quality of the student's preparation and the rate of progress during research.

All courses used to satisfy the course work requirement (listed as 1 above) must have the approval of the Department. The number of graduate credits beyond the master's level must be at least 30 and typically will be more. Each student will have a four-member advisory committee, which will carry out an annual review of the student's progress.

Examinations

There are three examinations: 1) a written qualifying examination must be passed. All students entering the Ph.D. program are required to pass a written qualifying examination administered by the department before the completion of the second full year of study. 2) A satisfactory score (generally 50 percent or better) must be achieved on the GRE Advanced Physics test before completion of the second full year of study. 3) A final oral defense of the doctoral thesis must be passed.

Dissertation

The doctoral dissertation reports the results of significant original research, performed independently by the student, written in lucid scientific prose.

Course Descriptions

Astronomy

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 Bang.

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 know as PHYS 771.) **Prerequisites:** Graduate standing.

Physics

PHYS 604 - Computational Techniques in Physics

PHYS 614 - Intermediate Laboratory II

PHYS 622 - Electricity and Magnetism

PHYS 624 - Mechanics

PHYS 626 - Physics of Solids

PHYS 631 - Nuclear and Elementary Particle Physics

PHYS 641 - Mathematical Physics I

PHYS 642 - Mathematical Physics II

PHYS 651 - Modern Scientific Instrumentation

PHYS 661 - Light and Physical Optics

PHYS 662 - Modern Optics and Photonics

PHYS 667 - Thermodynamics

PHYS 668 - Statistical Mechanics

PHYS 681 - Quantum Mechanics I

PHYS 682 - Quantum Mechanics II

PHYS 683 - Special Topics in Physics

PHYS 685 - Condensed Matter Physics

Note: 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.

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:** Graduate standing or consent of instructor; PHYS 461 or equivalent.

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 422/622 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 422/622 and graduate standing.

PHYS 721 - Quantum Theory I

Credits 3

Development of quantum theory. Schrodinger 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 482/682 and graduate standing.

PHYS 722 - Quantum Theory II

Credits 3

Development of quantum theory. Schrodinger 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 482/682 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 682/721, 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 461/661, 481/681 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 683, or EEG 414 and 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 482/682 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/ r 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

Director

Charalambos Papelis

(1994), Associate Research Professor; B.S., National Technical University, Athens, Greece; M.S., Ph.D., Stanford University.

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>.

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.

Water Resources Management M.S.

Admission Requirements

The deadline for fall semester application is February 1. The deadline for spring semester application is October 1. 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 application, as well as official transcripts of all college-level course work to the Graduate College. Send the following (items 3-6) to:
Graduate Admissions Committee
Water Resources Management Program
University of Nevada Las Vegas
4505 S. Maryland Parkway, Box 454029
Las Vegas, NV 89154-4029

3. Copies of all transcripts sent to the Graduate College.
4. Satisfactory scores on the Graduate Record Exam. This requirement may be waived in the case of candidates with exceptional professional experience.
5. Three letters of recommendation from individuals competent to comment on the applicant's promise as a graduate student.
6. A letter of application stating the student's interests and goals.

Degree Requirements

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. 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.

Thesis Option

1. Course Work
 - a. One required course: WRM 706 - Research Methods in Water Resources Management
 - b. Six credits in Hydrologic Sciences courses required (GEOL or CEE courses)
 - c. Three additional credits in Science, mathematics, or engineering courses required (see listing of BIO, CEE, CHEM, GEOL, MAT, MEG, PHYS, or STA courses)
 - d. Nine credits in Management, public administration, economics, law, or political science courses required (see listing of ECO, EPS, ENV, HIS, LAW, MGT, MIS, POS, or PUA courses)
 - e. Six credits of Electives (see listing of BIO, CEE, CHEM, ECO, EPS, ENV, GEOL, HIS, LAW, MAT, MEG, MGT, MIS, PHYS, POS, PUA, or STA courses)
2. Thesis: WRM 798 – Thesis (required credits: 6)
3. Final Examination: There will be a final examination that will include a comprehensive oral examination.
4. Total semester credit hours: 33 credits

Non-thesis Option

1. Course Work
 - a. One required course WRM 706 - Research Methods in Water Resources Management
 - b. Six credits in Hydrologic sciences courses required (GEOL or CEE courses)
 - c. Six additional credits in Science, mathematics, or engineering courses required (see listing of BIO, CEE, CHEM, GEOL, MAT, MEG, PHYS, or STA courses)
 - d. Twelve credits in Management, public administration, economics, law, or political science

- courses required (see listing of ECO, EPS, ENV, HIS, LAW, MGT, MIS, POS, or PUA courses)
- e. Six credits of electives (see listing of BIO, CEE, CHEM, ECO, EPS, ENV, GEOL, HIS, LAW, MAT, MEG, MGT, MIS, PHYS, POS, PUA, or STA courses)
2. Professional paper: WRM 796 - Professional Paper in WRM (required credits: 3)
 3. Total semester credit hours: 36 credits

Notes: A minimum of 15 credit hours must be in 700-level courses for both degree options. A 3.00 grade point average is required in all course work used in the degree program.

Course Descriptions

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

“Making a Difference” is more than a motto for the Greenspun College of Urban Affairs. It is the focus of all we do. The vibrant, complex environment in the Las Vegas Valley is the laboratory for the Greenspun College. Dedicated to using the knowledge of its disciplines to address the issues and problems in an urban environment, the faculty and students in the Greenspun College strive to make a positive difference in Las Vegas, the region, and the nation. As the College’s faculty advance their disciplines through research and teaching, they share a commitment to fostering the professional development of their students and equipping them to address the myriad of issues that confront individuals as well as organizations in an urban environment.

The college offers a myriad of graduate programs including graduate certificates in Forensic Social Work, Marriage and Family Therapy, Public Management, and Nonprofit Management. It offers Master of Arts in Communication, in Criminal Justice, and in Journalism and Media Studies, the Master of Science in Marriage and Family Therapy and in Environmental Studies, the Master of Social Work (MSW), and the Master of Public Administration (MPA). There are two master level executive programs (a Professional Master of Arts in Criminal Justice, an Executive Master in Crisis and Emergency Management) and two Ph.D. programs one in Environmental Science and another in Public Affairs.. These graduate programs emphasize the application of theory in professional practice to address the issues and problems of urban life. Partnerships among the departments and with the community provide students abundant opportunities to develop professionally under the guidance of expert faculty and skilled practitioners. By bridging the gap between the community and the university, the faculty and students in the college are making a difference in thousands of lives.

Lee Bernick, Interim Dean

(2000), Professor; B.A., M.A., Ph.D., University of Oklahoma.

Communication Studies

Chair

Burkholder, Thomas R.
(1999), Associate Professor; B.S.E., M.A., Emporia State University; Ph.D., University of Kansas.

Graduate Coordinator

Emmers-Sommer, Tara M.
(2006). Professor and Associate Dean, Greenspun College of Urban Affairs; B. A., M. A., University of Wisconsin, Milwaukee; Ph.D., Ohio University.

Graduate Faculty

Conley, Donovan S.
(2004), Assistant Professor; B.A., University of Lethbridge, Alberta; M.A., Ph.D., University of Illinois.

Engstrom, Erika
(1991), Associate Professor; B.A., M.A., University of Central Florida; Ph.D., University of Florida.

Henry, David
(1998), Professor; A.B., University of California, Berkeley; M.A., University of California, Davis; Ph.D., Indiana University.

Sahlstein, Erin
(2006), Assistant Professor; B.A., Iowa State University; M.A., University of Wisconsin, Milwaukee; Ph.D., University of Iowa.

Thompson, Jacob
(2007), Director, Sanford J. Berman Debate Forum, Assistant Professor in Residence; B.A., Wayne State University; M.A., Ph.D., University of Kansas.

Valenzano III, Joseph
(2006), Assistant Professor, Faculty in Residence, Basic Course Director; B. A., Providence College; M. A., University of Maine, Orono; Ph.D., Georgia State University.

Watson, Martha
(1997), Professor; B.A., Rice University; M.A., Ph.D., University of Texas at Austin.

Professors Emeriti

Blythin, Evan
(1969-1998), Emeritus Associate Professor; A.A., Palomar Junior College; B.A., M.A., San Diego State University; Ph.D., University of Colorado.

Jensen, Richard Jay
(1992), Professor and Senior Advisor to the President; B.S., Weber State College; M.A., University of Arizona; Ph.D., Indiana University.

Nielsen, Stephen F.
(1969-1998), Emeritus Associate Professor; B.S., Ricks College; M.S., Ph.D., Southern Illinois University.

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, qualitative research methods, quantitative analysis, and theories of communication (COM 710, 711, 712, and 730). Graduate teaching assistants are required to take an additional course in college teaching in communication in their first semester (COM 725). 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.

Admission Requirements

In addition to the general requirements for admission to the Graduate College, the Department of Communications Studies typically requires:

1. A minimum GPA of 3.00 in the last 90 credit hours of undergraduate course work.
2. Satisfactory scores on the verbal and quantitative sections of the Graduate Record Exam.
3. At least three letters of recommendation from individuals who are competent to discuss the applicant's intellectual ability and promise as a graduate student. Two of these letters should come from professors or college-level instructors.
4. A brief description (one or two pages long) of the applicant's goals and expectations in pursuing graduate study in communication.
5. A sample of the applicant's writing. This could be a paper from an undergraduate course or something similar.

Communication Studies M.A.

Degree Requirements

All students enrolled in the program are required to complete core courses in their first year

COM 710 - Survey of Communication Studies

COM 711 - Research Methods I

COM 712 - Research Methods II

Credits 3

COM 730 - Theories of Communication

Graduate teaching assistants are required to take an additional course in their first semester.

COM 725 - College Teaching in Communication

Notes: 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.

Thesis Track

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.

Examination Track

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. 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).

Scholarly Research Project Track (Approval Pending)

The Scholarly Research Project track entails the completion of 36 credits of course work, no more than six units of which may be taken outside the Department of Communication Studies. Students construct a Graduate Education Portfolio, and develop an original research project for submission to a scholarly meeting and/or scholarly journal. Students prepare and defend a prospectus early in the second year of their program, draft the paper under the direction of their major advisor in the fall semester, revise the research paper and meet with the full committee by April 8 for a formal presentation and oral examination. Specifics of the project and procedures are detailed in the Department of Communication Studies Graduate Handbook, which is available upon request.

General Notes

1. 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.
2. All students must submit a program of study, including all proposed course work, to the Graduate College before the completion of 16 credit hours. The student's

advisor and Graduate Studies Coordinator must approve the program and any changes to the program.

3. Acceptable course work is defined as any class in which a student receives a grade of B- or higher. Any course graded C+ or below will not be included in the candidate's degree program.
4. A student who fails the oral examination for the thesis or the comprehensive examination will be allowed to take another examination. There must be a period of at least three months between examinations.
5. The Department of Communication Studies accepts applicants only in the fall semester of each year.
6. Review of applications starts January 15.

Course Descriptions

COM 603 - Public Communication

COM 604 - Principles of Persuasion

COM 607 - Communication Between the Sexes

COM 616 - Conflict Management

COM 684 - Political Communication

Note: The above courses are 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.

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 - Research Methods I

Credits 3

Fundamentals of critical philosophy, theory and practice, writing and critiquing research reports.

COM 712 - Research Methods II

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

Notes: May be repeated but only six credits applied to the student's program. Grading S/F grading only.

Criminal Justice

Chair

Lieberman, Joel

(1997), Associate Professor; B.A., State University of New York at Stony Brook; M.A., Ph.D., University of Arizona.

Graduate Coordinator

Lu, Hong

(1998), Associate Professor; LL.B., Law School, Fudan University; M.A., Indiana University; Ph.D., Arizona State University.

Graduate Faculty

Gauthier, Jane

(2005), Assistant Professor; B.A., M.A. California State University; Ph.D., Washington State University.

Hangawatte, Karu

(1984), Assistant Professor; LL.B. University of Ceylon; M.A., Ph.D., University of New York at Albany.

Hart, Timothy

(2006), Assistant Professor; B.A., University of Florida; M.A., University of Memphis, Ph.D., University of South Florida.

Kennedy, Alexis

(2005), Assistant Professor; B.A., University of Toronto; LL.B., University of Manitoba; M.A., Ph.D., University of British Columbia.

Madensen, Tamara

(2008), Assistant Professor; B.A., M.A., California State University, San Bernardino; Ph.D., University of Cincinnati.

McCorkle, Richard

(1990), Associate Professor; B.A., University of North Carolina; M.A., Ph.D., Vanderbilt University.

Miethe, Terance D.

(1993), Professor; B.A., Western Washington State College; M.A., Western Washington University; Ph.D., Washington State University.

Shaffer, Deborah

(2005), Assistant Professor; B.S., M.A., Indiana State University; Ph.D., University of Cincinnati.

Shelden, Randall G.
(1977), Professor; B.A., California State at Los Angeles;
M.A., Memphis State University; Ph.D., Southern Illinois
University at Carbondale.

Sousa, William
(2004), Assistant Professor; B.A., Stonchill College;
M.S., Northeastern University; Ph.D., Rutgers University.

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.

Criminal Justice Professional M.A

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.

Admission Requirements

1. An undergraduate degree in criminal justice or related social or behavioral science with 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. The Graduate Record Examination (GRE) is not required for admission.
2. A Criminal Justice Graduate Program Application Cover Page must be completed.
3. A Statement of Purpose for pursuing the Professional Master's Degree, addressing the student's particular interests in the field of criminal justice and his or her professional goals, will be provided at the time of the student's application.
4. Two letters of reference 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.

5. Application forms, fees, and official transcripts are submitted to the Graduate College. Submit an additional copy of official transcripts, the two letters of recommendation, and the statement of purpose, along with the Application Cover Page, directly to the department.
6. International Students. Applicants who are citizens of a country where English is not the native language must show competency in the English language. As a part of the entrance requirements, they must take the "Test as a Foreign Language" (TOEFL) and receive a minimum of 500 (written) or 213 (computerized). International applicants must also submit a completed financial statement before their application can be reviewed and should check with the Graduate College regarding application procedures.

Degree Requirements

Completion of 36 credits of graduate study at the 600 and 700 levels.

Required Courses

- CRJ 700 - Proseminar in Criminal Justice
- CRJ 702 - Proseminar on Research Methods
- CRJ 703 - Proseminar on Statistics

CRJ 705 - Proseminar on the Administration of Justice

An additional course from either of one of the following areas:

Criminology:

CRJ 701 - Proseminar on Theory

CRJ 706 - Seminar on the Nature of Crime

CRJ 710 - Crime and Its Control in Gambling

CRJ 713 - Victimization

CRJ 714 - Theory Construction

Criminal Justice Institutions:

CRJ 704 - Proseminar on Law and Social Control

CRJ 707 - Policing

CRJ 712 - Punishment and Corrections

CRJ 708 - Seminar on Law and Legal Process

CRJ 715 - Criminal Justice Policy

An additional nine credits in elective, graduate criminal justice courses are required. A maximum of nine credits of 600-level courses is allowed

Comprehensive Examination

All students enrolled in the Professional Master's Degree in the Professional Master's Degree in Criminal Justice will be required to pass a comprehensive examination. Three credits of graduate work (CRJ 796) will be awarded upon successful completion of the examination.

Criminal Justice Traditional M.A.

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.

Admission Requirements

1. An undergraduate degree in criminal justice or related social or behavioral science with 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. The Graduate Record Examination (GRE) is required for admission.
2. A Criminal Justice Graduate Program Application Cover Page must be completed.

3. 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.
4. 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.
5. Application forms, fees, official transcripts, test results and assistantship applications are submitted to the Graduate College. Submit an additional copy of official transcripts, the two letters of recommendation, and the statement of purpose, along with the Application Cover Page, directly to the department.
6. International Students. Applicants who are citizens of a country where English is not the native language must show competency in the English language. As part of the entrance requirements, they must take the "Test of English as a Foreign Language" (TOEFL) and receive a minimum score of 550 (written) or 213 (computerized). International applicants must also submit a completed financial statement before their application can be reviewed and should check with the Graduate College regarding application procedures.

Degree Requirements

Completion of 36 credits of graduate study at the 600 and 700 levels.

Required Courses

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

An additional six credits in elective, graduate-level criminal justice courses are required.

A maximum of nine credits of 600-level course is allowed.

Graduate Study

Students may elect up to six credits of approved graduate study in other social or behavioral sciences or in graduate programs formally approved by the Department of Criminal Justice.

Thesis

All students enrolled in the Traditional Master of Arts Degree Program in Criminal Justice 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. Six credits of graduate work (797) will be awarded upon successful completion of the thesis.

Course Work and Thesis

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 and 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.

Consistent Progress

Toward the degree and maintenance of a cumulative 3.00 grade point average are required for continuation in and completion of the program.

Course Descriptions

CRJ 605 - History of Criminal Justice

CRJ 611 - Comparative Criminal Justice Systems

CRJ 628 - Women and Crime

CRJ 636 - Sociology of Law

CRJ 641 - Social Science in Law

Note: The 600-level courses listed above have been approved for graduate credit. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

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:** Graduate standing in criminal justice, and CRJ 701 and CRJ 702, 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:** Graduate standing in criminal justice or consent of instructor, and CRJ 701 and CRJ 702.

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, 702, 703

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. **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:** Graduate standing in criminal justice, consent of instructor, and CRJ 701, 702, 703, 704, and 705.

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 701-705, and 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:** Graduate standing in criminal justice or consent of instructor, and CRJ 701 and CRJ 702.

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 does this primarily through interdisciplinary activities including policy forums and the offering of a Ph.D. in Public Affairs. The following departments are components of the school:

Environmental Studies
Public Administration

Environmental Studies

Chair

Hassenzahl, David

(2000), Associate Professor; B.A., University of California, Berkeley; Ph.D., Princeton University.

Graduate Coordinator

Stave, Krystyna

(1997), Associate Professor, B.S. Cornell University, M.S. Dartmouth College, Ph.D. Yale University.

Graduate Faculty

Deacon, James E.

(1960), Professor; B.S., Midwestern University; Ph.D., University of Kansas.

Farnham, Timothy J.

(2002), Assistant Professor; B.A., Williams College; M.S., University of Michigan; Ph.D., Yale University.

Futrell, Robert

(1999), Associate Professor; B.A., University of Kentucky; M.A., Ph.D., University of Kansas.

Gerstenberger, Shawn

(1997), Assistant Professor; B.S., University of Wisconsin-Platteville; M.S., Ph.D., University of Illinois at Champaign-Urbana.

Hodge, Vernon R.

(1970), Professor, Chemistry; B.A., M.S., San Diego State University; Ph.D., University of California, San Diego and San Diego State University.

Neill, Helen

(1992), Associate Professor; B.A. Trinity University; M.A. Ph.D. University of New Mexico.

Smith Jr., William James

(2005), Assistant Professor,; B.A. University of Delaware; M.A. Towson University; Ph.D. University of Delaware

Spell, Terry Lee

(1996), Assistant Professor, Geoscience; B.S., West Georgia College; M.S., New Mexico Institute of Mining and Technology, Ph.D., State University of New York, Albany.

Steinberg, Spencer

(1989), Professor; B.A., Ph.D., University of California, San Diego.

Titus, Alice

(1977) Professor; A.B., College of William and Mary; M.A., University of Georgia; Ph.D., Florida State University.

The Department of Environmental Studies administers an interdisciplinary program offering M.S. and Ph.D. degrees in Environmental Science. At present two fields of concentration are available: 1) Environmental Chemistry and 2) Environmental Policy and Management. An Environmental Science Graduate Coordinating Committee appointed by the Dean of the Graduate School establishes policy for the degree program. The program descriptions for the Environmental Science degrees are provided here. Students interested in pursuing degrees in chemistry or geology should refer to graduate program descriptions of the appropriate department in the College of Sciences. Programs

Environmental Science M.S. & Ph.D

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 Ph.D. and M.S. degrees 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.

Admission Requirements

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 Environmental Studies Department 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.

Degree Requirements for all Environmental Science Graduate Students

Each student admitted to the Ph.D. or 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. By the end of the first (M.S.) semester or second (Ph.D.) semester the student will select a chair of her/ his Advisory Committee and, in consultation with that chair recommend membership on the Advisory Committee. 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 or dissertation. A minimum of 33 credits (of which at least 21 will be in 700-level courses) beyond the baccalaureate, including a minimum of six credits for thesis, is required for the M.S. degree. A minimum of 72 credits (of which at least 36 will be in 700-level courses) beyond the baccalaureate is required for the Ph.D. degree. 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.

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. 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.

Successful completion and oral defense of a dissertation is required for the Ph.D. degree. Successful completion and oral defense of a thesis is required for the M.S. degree. The student is advised to examine the specific information for each field of study for additional requirements.

Course Descriptions

ENV 601 - Advanced Environmental Toxicology
 ENV 611 - Environmental Risk Management

ENV 614 - Air Pollution Science and Management
ENV 660 - Environmental Modeling
ENV 680 - GIS for Environmental Management
Note: The 600-level courses listed above have been approved for graduate credit. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

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.

Public Administration

Chair

Lukemeyer, Anna

(1999), Associate Professor; A.B., Indiana University; J.D., LL.M., Southern Methodist University School of Law; Ph.D., Syracuse University.

Graduate Coordinator

Stream, Christopher

(2004), Assistant Professor; B.A., University of Nebraska; M.S., Ph.D., Florida State University.

Graduate Faculty

Bernick, E. Lee

(2000), Professor; B.A., M.A., Ph.D., University of Oklahoma.

Joaquin, M. Ernita

(YEAR), B.A., M.P.A, University of the Philippines; Dip.HR Studies, University of Manchester; Ph.D. in Political Science, Northern Illinois University.

Park, Sung Min

Assistant Professor; B.A Yonsei University, M.I.A.: Columbia University, Ph.D. in Public Administration: The University of Georgia.

Springer, Christine

(2001), Director of the Executive Master in Crisis and Emergency Management; B.A., University of Arizona; M.P.A., Arizona State University; Ph.D. Indiana University.

Thompson, William N.

(1980), Professor; B.A., M.A., Michigan State University; Ph.D., University of Missouri.

Word, Jessica

(2006), Assistant Professor; B.A., Queens College; M.P.A. Ph.D., Florida State University.

Professors Emeriti

Goodall, Leonard E.

(1979-2000), Emeritus President and Professor; B.A., Central Missouri State University; M.A., University of Missouri; Ph.D., University of Illinois.

Lowry, Phillip E.

(1983-1996), Emeritus Associate Professor; B.S., University of Maryland; M.S.B.A., George Washington University; D.B.A., Ph.D., Arizona State University.

Sutton, Richard

(1974-2006), Emeritus Associate Professor; B.A. Tulane University; Ph.D. University of North Carolina, Chapel Hill.

Tilman, Lee R.

(1967-1997), Emeritus Professor; B.S., Oregon State University; M.A., Ph.D., University of Arizona.

The Department of Public Administration within the Greenspun College of Urban Affairs offers several graduate level programs designed to meet the special educational needs of professional public administrators, nonprofit employees, health care administrators and individuals who must interact with governmental units. The Department offers two Graduate Certificate Programs (a Graduate Certificate in Public Management and a Graduate Certificate in Nonprofit Management) and two Master degree Programs (the Master in Public Administration and an Executive Master in Crisis and Emergency Management). Moreover, the Department of Public Administration is the host unit for the Ph.D. in Public Affairs.

Executive Crisis and Emergency Management M.S.

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 go to the Program's website at the Department of Public Administration.

Admission Requirements

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. Three letters of reference.
7. A nonrefundable admission application of \$60. A check or money order should be made payable to Board of Regents.

All the above should be sent to:

ECEM Program
Department of Public Administration
4505 S. Maryland Parkway, Box 456026
Las Vegas NV 89154-6026

General Program Structure

The degree requires the twelve courses listed below (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.

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
ECEM 734 - Research in the Implementation of Concepts in Crisis and Emergency Management

Course 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 web campus educational system.
3. Students are expected to enroll in a full course load each module and finish with the initial cohort.

Nonprofit Management Certificate

The Department of Public Administration 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.

Admission Requirements

Applicants must have earned an undergraduate degree from a regionally accredited college or university. They should also submit a letter explaining their interest in the Certificate in Nonprofit Management. Applicants must submit two letters of reference and a resume. Applicants must be accepted by the Graduate College and the Department of Public Administration.

Program Description

Students will be required to complete fifteen credits of graduate work and complete an environmental scan of a nonprofit agency. Twelve of the fifteen credit hours will be comprised of courses that can be counted as electives in the Master of Public Administration degree (the remaining three credits are earned by taking a required core course in the MPA program: PUA 708 - Seminar in Public Personnel Administration).

The Certificate program requires

- PUA 770 - Nonprofit Management and Theories of the 3rd Sector
- PUA 708 - Seminar in Public Personnel Administration
- PUA 774 - Community Outreach and Volunteerism
- PUA 775 - Strategic Planning and Program Evaluation for Nonprofits
- PUA 776 - Development for Nonprofit Managers

Plus three one credit courses

Students must also enroll in three one credit courses relevant to the program. A list of courses offered each summer can be found at the department's website.

Capstone Experience

Certificate program students are required to submit a final project paper that uses knowledge and skills obtained from the Certificate's course work and applies this information to an organization of their choice. Specific guidelines for the paper may be obtained at the Department of Public Administration office.

Relationship to M.P.A. Degree

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. Please contact the department for further information on admissions to the M.P.A.

Public Administration M.P.A.

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 those in the private sector especially Health Care Administration 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.).

Admission Requirements

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.

An application form, and official transcripts of all college level work, must be submitted to the Graduate College.

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. Satisfactory score on either the Graduate Record Examination (GRE)—combined score of at least 900 on the verbal and quantitative sections—or a comparable score on the 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 Department.

4. At least one year of responsible administrative or management experience in a public agency or permission of the coordinator of the M.P.A. program.
5. Three letters of reference sent to the Department.
6. A resumé indicating educational and professional experience sent to the Department
7. A personal statement describing how the MPA fits into the applicants professional goals.
8. An official transcript from the college or university where the applicant received a bachelor's degree should be sent to the Department.

Degree Requirements

The M.P.A. degree requires 36 credits of approved course work. For students without appropriate professional administrative experiences, the degree requires an internship and a total of 39 hours. 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.

There are four main parts to the M.P.A. program: a core set of courses focusing on general administrative and management skills; a set of courses developing students' analytical skills; a concentration developed through electives; and completion of a final project. Students enroll in PUA 791 - Topics in Administration to complete their final project which is taken after completing either PUA 725 or PUA 726. 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.

All electives must be approved by the Director of the M.P.A. program in a concentration area.

In selecting courses to distribute over these four areas, the student will meet with an academic advisor and write a formal degree plan, which must have the approval of the M.P.A. coordinator. At least one course taken as an elective must be designated as a writing extensive.

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.

General Program Structure - Total Credits: 12

PUA 701 - Principles of Public Administration
PUA 703 - Seminar In Organization Theory
PUA 704 - Seminar in Fiscal Administration
PUA 708 - Seminar in Public Personnel Administration

Analytic Studies - Total Credits: 9

PUA 721 - Quantitative Methods for Public Administration

PUA 723 - Research Design for Public Administration
PUA 725 - Policy Analysis and Program Evaluation
or
PUA 726 - Policy Analysis

Electives - Total Credits: 9

Applied Analytical Project

PUA 791 - Topics in Administration
PUA 709 - Internship Program in Public Administration (required of students without appropriate professional public administrative experience)

M.P.A. with Non-Profit Management Concentration

Students interested in the Nonprofit concentration enroll in all of the courses listed in the Certificate program.

Public Management Certificate

The Department of Public Administration 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.

Students will be required to complete fifteen hours of graduate work and complete an environmental scan of an agency, normally the one where they are employed, which will serve as the capstone experience. Twelve of the fifteen credit hours will be comprised of courses currently required in the Master of Public Administration degree. Students will earn an additional three credits by enrolling in three one credit courses designed to meet specific technical needs of public managers.

Admission Requirements

Applicants must have earned an undergraduate degree from a regionally accredited college or university. Moreover, they must be currently employed in a public agency at the national, state, or local level. As it currently is configured, admissions into the certificate program is only permitted if a student enters a cohort that is being sponsored by a government agency. Applicants must be accepted by the Graduate College and the Department of Public Administration.

Certificate Requirements: 12 Total Credits

PUA 701 - Principles of Public Administration
PUA 703 - Seminar In Organization Theory
PUA 704 - Seminar in Fiscal Administration
PUA 708 - Seminar in Public Personnel Administration

Three credits from the following one credit topic courses:

PUA 792 - Current Issues in Public Administration

- Grant Writing
- Strategic Planning
- Lobbying Information Presentation
- Ethics
- Performance Measure

Capstone Experience

Certificate program students are required to submit a final project paper that uses knowledge and skills obtained from the course work and applies this information to an organization of their choice. Specific guidelines for the paper may be obtained at the Department of Public Administration office.

Relationship to M.P.A. Degree

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. Please contact the department for further information on admissions to the M.P.A.

Course Descriptions

ECEM 711 - Crisis and Emergency Management

Credits 3

Focuses on the evolution of U.S. disaster policy and the practice of emergency management, with particular attention to the roles of local governments and nonprofit agencies in disaster management. The course examines the major policy issues, including the utility of "all-hazard" or comprehensive model of emergency management.

Prerequisites: Admission into program.

ECEM 712 - Science of Catastrophes

Credits 3

Offers an understanding of the underlying scientific issues that arise from natural, intentional, and technical disasters. Presents information at a managerial level, providing students with a sufficient overview to recognize and understand the complexity of potential catastrophic events which they must plan for and manage. **Prerequisites:** Admission into the ECEM program.

ECEM 713 - Evolution of Terrorism

Credits 3

Focuses on the historical roots of terrorism and stresses importance of understanding the past to adequately prepare for the future. Through a historical perspective, provides basis for and discusses aspects that make contemporary terrorism of today different from traditional terrorism of the past. Formerly (ECEM 742) **Prerequisites:** Admission into program.

ECEM 714 - Intergovernmental Affairs

Credits 3

Overview and analysis of intergovernmental issues facing public administrators involved in the administrative, regulatory, and political dimensions of emergency management. Provides information about the political system in which emergency managers must navigate and an overview of key governmental agencies and actors.

Prerequisites: Admission into the ECEM program.

ECEM 721 - Organizational Leadership

Credits 3

Provides introduction to leadership and organizational theory in the context of emergency management. Examines theory and develops a range of skills in a number of interpersonal areas: conflict management, use of power, group dynamics, and leadership and influence.

Prerequisites: Admission into program.

ECEM 722 - Community Preparedness

Credits 3

Provides an understanding of how communities prepare for disasters through social vulnerability analysis and community capacity analysis. It examines historical, geographical, social, and cultural factors and conditions that put people differentially at risk in the community and require integration and coordination among agencies and organizations. **Prerequisites:** Module 1 Corequisite Module 2 courses

ECEM 723 - Human Considerations

Credits 3

Explores the human side of emergencies, by analyzing the public response to a terrorist incident, the public health implications of a major incident, the psychological component, and the long-range environmental considerations that must be taken when responding to an incident. **Prerequisites:** Admission into program.

ECEM 724 - Exercise Design and Response Plan

Credits 3

Provides a synthesis of student learning by providing thorough instruction in the fundamentals of simulating disasters, planning and conducting table-top exercises, planning and conducting functional full-scale exercises, as well as drafting organizational response plans.

Prerequisites: Module 1 Corequisite Module 2 courses

ECEM 731 - Risk Assessment, Mitigation and Communication

Credits 3

This course explores the use of "risk" in making individual and group decisions. We will explore qualitative and quantitative methods for evaluating risk and develop practices to use such information to improve decision making processes in the context of emergency management. Corequisite Admission into Program

ECEM 732 - Prevention and Planning

Credits 3

This course analyzes the methods by which governmental organizations, private sector entities, and the general public can prevent and prepare for natural, intentional, and technical disasters. It will discuss topics such as vulnerability and threat assessments, resources and capabilities identification/integration, and training and exercise programs. Corequisite/Prerequisite Admission into Program

ECEM 733 - Response and Recovery

Credits 3

Studies crisis management responses pertaining to terrorist activities. Covers principles, characteristics, objectives, phases, organizational requirements, command and control issues, planning and coordination, incident site management, crime scene management, and responsibilities and capabilities of federal and state/local agencies for terrorist incidents. Formerly (ECEM 740) **Prerequisites:** Admission to program.

ECEM 734 - Research in the Implementation of Concepts in Crisis and Emergency Management

Credits 3

This course provides a culminating experience for students to demonstrate proficiency in applying the fundamentals of disaster simulation, table-top exercise formulation and execution, functional full-scale exercise formulation and execution and organizational response plan creation. It will require mastery and integration of previously presented program topics. Corequisite/Prerequisite Admission into Program

ECEM 741 - Regional Overview of Terrorism

Credits 3

Studies the threat of terrorism pertaining to various regions and specific countries of the world. Focuses on nature of terrorism in contemporary society from an international perspective and provides an examination of the history, objectives, and favored tactics of major terrorist organizations on a regional basis. **Prerequisites:** Admission into the program.

PUA 701 - Principles of Public Administration

Credits 3

Survey of the field of public administration with an introduction to the functions of finance, personnel administration, evaluation, research and planning. Same as (SWK 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 704 - Seminar in Fiscal Administration

Credits 3

Provides an overview of fiscal administration in the public sector at all levels of government. Introduces students to basic concepts and practices in two key areas: government revenues and budgeting. Formerly (PUA 714) Same as (SWK 765) **Prerequisites:** PUA 701 or consent of instructor.

PUA 708 - Seminar in Public Personnel Administration

Credits 3

Includes advanced reading, discussion and research in personnel problems as seen in the public and nonprofit sector. Formerly (PUA 718) Same as (SWK 767) **Prerequisites:** PUA 701 or consent of instructor.

PUA 709 - 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.

PUA 710 - Accounting for Public Service Managers

Credits 3

Introduces financial accounting statements from the perspective of the user. Covers principles and concepts of cost accounting from a managerial perspective. Covers financial accounting for investor owned, government, and not-for-profit organization. **Prerequisites:** Facility with spreadsheet software is strongly recommended.

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 712 - Information Technology and the Public Sector Manager

Credits 3

Introduces computer-based information systems from the perspective of the public sector manager. Presents the theoretical aspects of organizational computing. Covers such management issues as computer security concerns, health-safety issues, privacy and confidentiality

requirements, ADA requirements, training issues, and decision-making applications. Formerly (PUA 720)

PUA 713 - E-Government Implications for Public Sector Organizations

Credits 3

Introduces e-government from the perspective of the public sector organization. Presents theoretical aspects of Internet based systems. Covers such management issues as security, ADA requirements privacy statements, and the provision of services on the web. Discusses organizational implications of providing services on line and the use of change management. Formerly (PUA 721) **Prerequisites:** PUA 712 or consent of instructor.

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 Design for Public Administration

Credits 3

Introduction to empirical research methods useful for analysis of public policies and programs. Includes techniques such as survey research, experiments, quasi-experiments, case studies, and qualitative methods. Students learn to understand, evaluate, and undertake basic empirical

research of topics relevant to public administration and public policy. **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 726 - Policy Analysis

Credits 3

Introduction to skills and knowledge of concepts, techniques and theories of public policy analysis. **Prerequisites:** PUA 701, 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 735 - Public Regulation of Gambling

Credits 3

Development and control of the legalized gambling industry in its many forms. Comparative analysis of regulatory models for casino, lottery, pari-mutuel, and charity gambling in Nevada and other jurisdictions. Emphasis given to procedures for insuring financial and legal integrity of gambling. **Prerequisites:** PUA 701 or consent of instructor.

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 742 - State Government Administration

Credits 3

Focuses on the administration of state government functions in general, with emphasis on the state government of Nevada. Covers the economic and political environment of the state and the role of state government in the federal system. **Prerequisites:** PUA 701 or consent of instructor.

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 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 755 - Impacts of the Gaming Industry

Credits 3

Comprehensive course dealing with the political, social, and economic impacts of the world-wide gambling industry. Special attention given to economic development impacts in the public sector with the establishment of various kinds of gambling. Formerly (PUA 736)

Prerequisites: PUA 701 or consent of instructor.

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 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 to 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 non-profit 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 791 - Topics in Administration

Credits 3 – 6

Emphasizes the intensive specialized study of a selected administrative topic. Involves advanced study, reading, and analysis culminating in a written report and designed to supplement the learning provided by the tool and theory courses. Grading S/F grading only. **Prerequisites:** PUA 725 or PUA726 or consent of instructor.

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 795 - Formulating Administrative Strategies in the Public Sector

Credits 3

Integrating course in public administration. Covers the analysis of alternative administrative strategies. Emphasis placed on the modern role and techniques of administration. Case studies and administrative problems considered. Focus on the use of contemporary techniques in finding solutions to practical administrative problems. **Prerequisites:** Open only to M.P.A. Students.

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 723 and/or consent of instructor.

Hank Greenspun School of Journalism & Media Studies

Director

Stout, Daniel

(2006), Professor, B.A., Brigham Young University; M.A., University of Georgia; Ph.D., Rutgers University.

Graduate Coordinator

Borchard, Gregory

(2003), Associate Professor; B.A., M.A., University of Minnesota; Ph.D., University of Florida.

Graduate Faculty

Bates, Stephen

(2006), Assistant Professor; B.A., J.D., Harvard University.

Ferri, Anthony J.

(1985), Professor; Honors B.A., University of Windsor; M.A., Ph.D., Wayne State University.

Kilker, Julian A.

(1999), Associate Professor; B.A., Reed College; M.S., Ph.D., Cornell University.

Larson, Gary

(1997), Assistant Professor; B.A., University of Minnesota; M.A., North Dakota State University; Ph.D., University of Minnesota.

Mullen, Lawrence J.

(1994), Professor; B.A., Buffalo State College; M.A., University of Maryland; Ph.D., University of Iowa.

Sohn, Ardyth B.

(2005), Professor; B.A., University of Illinois; M.A., Ph.D., Southern Illinois University.

Traudt, P.J.

(1996), Associate Professor; B.A., University of Colorado-Boulder; M.A., University of Utah; Ph.D., University of Texas-Austin.

The Hank Greenspun School of Journalism and Media Studies offers the Master of Arts degree. The course of study is designed to emphasize research and theoretical exploration in various areas of journalism, and the form and content of the media. The courses are designed to help students acquire the tools to conduct graduate-level research and produce scholarship. The curriculum also caters to those with a professional orientation thus allowing students to investigate areas such as advertising, media management, public relations, television and film, the Internet and emerging media forms and their effects at the social and individual levels. The program aims to develop a deep understanding of the media to make students better consumers of the media, developers of mediated messages, critics of mediated subject matter, and experts on journalistic and mass mediated problems and issues.

All students are required to take four introductory courses; Survey of Journalism and Media Studies, Qualitative Research Methods, Quantitative Research Methods, and Journalism and Media Theory (JMS 712, JMS 711, JMS 710, and JMS 730). 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 twentyfirst century.

Journalism & Media Studies M.A.

Admission Requirements

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.

Degree Requirements

All fully admitted students are required to complete the programs' four core courses:

JMS 710 - Survey of Journalism and Media Studies
JMS 711 - Qualitative Research Methods
JMS 712 - Quantitative Research Methods
JMS 730 - Journalism and Media Theory

Students have the choice of doing research leading to the writing of a thesis (Thesis Track) or completing a program of course work leading to a comprehensive examination (Examination Track). 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.

Thesis Track

In this track students complete a minimum of 30 credit hours of approved course work plus six hours of thesis credits. The classes may include up to six credits outside the Hank Greenspun School of Journalism and Media Studies. Nontraditional forms of the thesis are allowed if they are consistent with the overall objectives of the program. An oral examination of the thesis is required.

Examination Track

In this track students complete a minimum of 36 credit hours of course work. No more than nine hours may be taken outside the Hank Greenspun School of Journalism and Media Studies. Students then take a comprehensive examination which they have to pass. The examination is taken over a two-day period with the student writing for between four to six hours each day. An oral examination then follows. A Graduate Record Portfolio is also required, the specifics of which are outlined in a handbook developed by the school. The handbook is available upon request.

General Notes

1. 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.
2. Students are responsible for determining a program of study and submitting the proper paperwork to the Graduate College before they complete 16 credit hours of course work. The student's advisor and Graduate Coordinator approve the program of study.

3. 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.
4. A student who fails the oral examination for the thesis or the comprehensive examination is allowed to reschedule the oral examination no sooner than three months after the first attempt. Failure on the second attempt results in the student being separated from the program.
5. The Hank Greenspun School of Journalism and Media Studies matriculates graduate students only in the fall semester.
6. Review of applications begins March 15.
7. For additional information, check the school's website.

Course Descriptions

JMS 601 - The First Amendment and Society
JMS 608 - Media Criticism
JMS 620 - Visual Literacy
JMS 635 - Mass Communication Research Methods
JMS 684 - Mass Media and Political Communication
JMS 685 - Mass Media and Society
JMS 687 - Ethics in Mass Media

Note: The courses listed above are 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 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

Chair

Weeks, Gerald R.

(1999), Professor; B.A., M.A., East Carolina University; Ph.D., Georgia State University.

Graduate Coordinator

Fife, Stephen T.

(2003). Assistant Professor. B.S., M.S., Ph.D. Brigham Young University

Graduate Faculty

Blumer, Markie C.L.

(2009). Assistant Professor. B.S. M.Ed., Northern Arizona University; M.A., University of Louisiana, Monroe; Ph.D., Iowa State University.

Hertlein, Katherine M.

(2004). Assistant Professor. B.S., Truman State University; M.S., Purdue University Calumet; Ph.D., Virginia Polytechnic Institute.

Peterson, Colleen M.

(1999). Assistant Professor in Residence, Center for Individual, Couple, and Family Counseling. B.A., M.S. Brigham Young University; Ph.D., Kansas State University.

Professors Emeriti

Emerson, Shirley

(1984-2000), Emeritus Professor; B.A., Rice University; M.A., Ph.D., University of Michigan.

McBride, Martha

(1975-1999), Emeritus Professor; B.A., M.Ed., University of Florida; Ed.D., University of Georgia.

The Department of Marriage and Family Therapy (MFT) 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 department 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 & Family Therapy Certificate

The Department of Marriage and Family Therapy admits applicants to an Advanced Certificate in Marriage and Family Therapy program. Applicants who have earned a Master's Degree in a related mental health field, but who have not completed the requirements for licensure as delineated by the State of Nevada Board of Examiners for Marriage and Family Therapists and Clinical Professional Counselors, may complete a course of study designed to meet the state's requirements. Students are responsible to consult with the Board of Examiners regarding the courses they will need for licensure. Certificate students are recognized by The Graduate College as Department of Marriage and Family Therapy students. Typically, certificate students will complete a course of study very similar to that of a master's degree graduate student in Marriage and Family Therapy. However, additional coursework may be needed to meet state licensing requirements. Once admitted, certificate students are viewed by the department as full participants in the department.

Admission Requirements for Certificate Programs

The Advanced Certificate in Marriage and Family Therapy program requires applicants apply for admission to the Graduate College, as well as to the Department of Marriage and Family Therapy. 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 a response to a ethical/moral question). 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 deadline. 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.

Certificate Requirements

To earn a certificate, students must have a grade point average of 3.00 or better in each course. Students who receive an F or more than two Cs will be separated from the program.

Marriage & Family Therapy M.S.

The Marriage and Family Therapy Master's Degree Program, a 63 (professional paper) or 66 (thesis) 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.

Admission Requirements

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 a response to an ethical/moral question). 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 deadline. 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.

Degree Requirements

To earn a master's degree, students must have a cumulative grade point average of 3.00 or better in the program. Those students who receive an F, or more than two Cs, will be separated from the program. A grade of B or better is required in any practicum or internship or the course must be repeated. The department requires a final examination for graduation, which can either be a professional paper or a research thesis. Every student will be reviewed each semester to determine adequate progress and retention in the program. 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. Non-admitted students may take up to three selected courses (see course listing for prerequisites) prior to formal admission to the program (MFT 701, 759 and 763). If admitted, these courses are eligible to count toward the degree.

Course Descriptions

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 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 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 Social Work

Director

Thompson, Joanne

(2003), Professor; B.A., LaGrange College, M.S.W., University of Arkansas, Ph.D., Rutgers University.

Graduate Program Coordinator

Overcamp-Martini, Maryann

(2002), Assistant Professor; B.A., College of Mount St. Joseph-on-the-Ohio; M.P.A., University of Wyoming; M.S.W., Ph.D., University of Utah.

Graduate Faculty

Albert, Vicky

(1998), Associate Professor; B.S.W., M.S.W., University of Illinois; Ph.D., University of California, Berkeley.

Bergquist, Kathleen Leilani Ja Sook

(2004), 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.

Denby Brinson, Ramona

(1998), Associate Professor; B.S.W., Arizona State University; M.S.W., University of Nevada, Las Vegas; Ph.D., Ohio State University.

Epstein, William M.

(1992), Professor; B.A., Brooklyn College; M.S.W., University of Pittsburgh; D.S.W., Columbia University.

Hardy-Desmond, Stacey

(1998), Associate Professor in Residence; B.A., University of California, Riverside; M.S.W., University of California, Los Angeles; Ph.D., California School of Professional Psychology; J.D., University of Nevada Las Vegas, Boyd School of Law.

Oakes, Margaret

(1997), Associate Professor; B.A., University of Arizona; M.S.W., California State University, Fresno; Ph.D., University of Texas at Austin.

Owens-Kane, Sandra

(1998), Associate Professor; B.A., M.S.W., University of Nevada, Las Vegas; Ph.D., University of California, Berkeley.

Pelton, Leroy

(1997), Professor; B.S., Brooklyn College; M.A., New School for Social Research; M.S.W., Rutgers University; Ph.D., Wayne State University.

Sharma, Satish

(1982), Professor; B.A., M.A., Panjab University; M.S.W., University of Iowa; Ph.D., Ohio State University.

Sun, An-Pyng
(1997), Associate Professor; B.A., National Chung-Shing University; M.S.W., University of Illinois, Champaign-Urbana; Ph.D., Case Western Reserve University.

Professor Emeriti

Langston, Esther
(1970-2008), Professor; B.A., Wiley College; M.S.W., San Diego State University; Ph.D., University of Texas.
Rubin, Gerald K.
(1976-1998), Emeritus Associate Professor; B.A., University of Minnesota; M.S.W., Ph.D., University of Denver.

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.

Forensic Social Work Certificate

The Forensic Social Work Certificate Program (FSWCP) is designed to meet the rapidly growing need throughout Nevada and the Southwest for graduate level trained social work practitioners with specific expertise related to law and legal systems. The FSWCP offers a comprehensive, formal specialization in forensic social work. The program addresses areas of practice that reflect the nexus between social work and the law, including: child welfare; domestic relations law including family violence; immigration; adult criminal and juvenile justice; public education; mental health and disabilities; and aging.

The program is guided by the values and knowledge base of the social work profession, governed by the School of Social Work mission statement, and directed by the School’s delineated goals and objectives. Didactic and experiential components of the FSWCP emphasize human diversity and social justice, with particular attention to the needs of at-risk, historically oppressed and vulnerable populations. The FSWCP prepares students for forensic social work practice with individuals, families, groups, organizations, and communities, especially those encountered within complex and dynamic urban environments.

Advanced Graduate Forensic Social Work Certificate Program Admission Requirements

Additional admissions requirements to the certificate program are delineated as follows:

1. Completion of Advanced Graduate Forensic Social Work application.
2. Verified concurrent admission to or completion of Master’s degree in Social Work or other related human services field.

3. Official transcripts from degree granting program or institution.
4. Professional Social Work License (L.S.W., L.C.S.W., or L.I.S.W. in Nevada or equivalent granted by another state Board of Examiners for Social Workers) preferred, but not required.
5. Personal statement (maximum of 3 pages)
6. Three reference forms (professors or work supervisors with standing to comment on candidate's potential for success as a forensic social worker).
7. Candidate interview at the discretion of the Forensic Social Work Admission Committee.

Students who have applied for and are admitted to an accredited MSW program may simultaneously apply for and be admitted to the certificate program.

Certificate Requirements

Granting of a certificate in forensic social work will be made upon successful completion of the following program of study. All courses for the forensic social work certificate must be completed in no more than three consecutive semesters.

SW 7001 - Introduction to Forensic Social Work
SW 676 - Legal and Ethical Issues in Social Work
SW 7002 - Seminar in Criminal Law
SW 7003 - Seminar in Family Law
SW 7004 - Skills Lab in Forensic Social Work
SW 7005A - Field Practicum - Forensic Social Work
SW 7005B - Professional Presentation - Forensic Social Work
SW 7010 - Capstone to Forensic Social Work

MSW students who have taken one or any combination of the following courses up to a maximum of 9 units may apply or petition for the Certificate Advanced Standing Track (CAS):

- SW 676 - Legal and Ethical Issues in Social Work
- SW 7001 - Introduction to Forensic Social Work
- SW 7002 - Seminar in Criminal Law
- SW 7003 - Seminar in Family Law

It will be the responsibility of the FSW certificate applicant to provide official proof of having completed these courses with grades of B or higher. The CAS track requires a minimum of 9 - 12 units of post-masters courses toward the FSW certificate.

Note: SW 7005A and B – students who demonstrate extensive work experience may opt for option “B” in lieu of a field practicum. SWK7005B can only be taken with administrative approval, otherwise all students must participate in the experiential learning experience provided by Field Practicum.

Certificate Advanced Standing Track (CAS track)

The essential certificate requirements remain the same as for the regular certificate program. However, MSW students who have taken one or any combination of the following courses up to a maximum of 9 units may apply or petition for the “CAS track”:

- Seminar in Criminal Law
- Seminar in Family Law
- Legal and Ethical Issues in Social Work
- Introduction to Forensic Social Work

Currently, these four (4) courses are accepted as graduate-level “electives” at UNLV and other universities. In order to avoid content repetition, students who have taken one or a combination of these courses and have achieved grades of “B” or higher may apply to the “CAS track.” It will be the responsibility of the FSW certificate applicant to provide official proof to the FSW admissions committee of having completed these courses to the satisfaction of the program. The “CAS track” requires a minimum of 9/12 units of post-masters courses toward the FSW certificate.

Social Work & Juris Doctor Dual M.S.W./J.D.

Juris Doctor/Master of Social Work (JD/MSW) degree program that allows students admitted to both programs to pursue the two degrees concurrently.

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 for further information on admissions requirements.

JD/MSW Curriculum

*Required Law Courses - Total Credits: 44**

- Civil Procedure/Alternative Dispute Resolution I 3

- Civil Procedure/Alternative Dispute Resolution II 3
- Constitutional Law I 3
- Constitutional Law II 3
- Contracts 5
- Criminal Law 3
- Lawyering Process I 3
- Lawyering Process II 3
- Upper-level writing-intensive course (one of various courses) 2-3
- Professional Responsibility 3
- Property I 3
- Property II 2
- Torts 4
- Third Semester Lawyering Process Course 3

* First-year required courses are prerequisites to all upperlevel law courses.

Required MSW Courses - Total Credits: 51

- Social Policy I and II 6
- Social Work Research I and II 6
- Social Work Practice I 3
- Social Work Practice II 3
- Human Behavior I and II 6
- Cross-cultural Competence 3
- Foundation Field Practicum I and II* 6
- DP, APP or CW Concentration Field Practicum I and II** 6
- Advanced Practice Required courses 12

* Foundation Field Practicum at Thomas & Mack Legal Clinic (in Child Welfare, Capital Defense or Juvenile Justice).

**Law Externship accepted for Social Work Field Practicum at approved sites including Congressional, Judicial, and Legislative sites.

Free Electives at Law School - Total Credits: 24

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 - Total Credits: 9

- Principles of Public Administration 3
- Personnel Administration 3
- Fiscal Administration 3
- Cross-cutting Issues in Child Welfare 3
- Legal and Ethical Issues in Social Work 3
- Child Welfare Policy and Services 3
- Child Welfare Administration and Supervision 3
- Advanced Practice with Children 3
- Advanced Seminar in Policy 3

Directed Electives at Law School - Total Credits: 12

| | | |
|---|------|--|
| Administrative Law | 3 | |
| Alternative Dispute Resolution Survey | 3 | |
| Bill of Rights in Law and Regulation | 2-3 | |
| Bioethics and the Law | 2-3 | |
| Business Organizations I | 3-4 | |
| Capital Defense Clinic | 1-6 | |
| Child, Parent, and the State | 2-3 | |
| Children in Society: Selected Problems | 2-3 | |
| Child Welfare Clinic | 1-6 | |
| Civil Rights Litigation | 3 | |
| Congressional Externship | 6 | |
| Criminal Procedure I | 3 | |
| Criminal Procedure II | 3 | |
| Disability Law | 3 | |
| Domestic Violence and the Law | 3 | |
| Education Law and Policy | 2-3 | |
| Employment Discrimination Law | 3 | |
| Employment Law | 3 | |
| Family Law | 3 | |
| Federal Income Tax | 3 | |
| Feminist Jurisprudence | 2-3 | |
| First Amendment Rights | 3 | |
| Government & Public Interest Externship | 1-12 | |
| Health Care Liability and Quality Regulation | 3 | |
| Health Care Organization and Finance | 3 | |
| Immigration Clinic | 1-6 | |
| Immigration Law | 3 | |
| International Human Rights Law | 2-3 | |
| Interviewing Counseling and Negotiations | 3 | |
| Judicial Externship | 3-6 | |
| Juvenile Justice Clinic | 1-6 | |
| Juvenile Law | 2-3 | |
| Land Use Regulation | 3 | |
| Law and the American Indian | 3 | |
| Law and Social Justice | 3 | |
| Legislative Externship | 1-12 | |
| Mediation | 2-3 | |
| Negotiation | 2-3 | |
| Seminar in Race, Gender, Sexual Orientation & the Law | 2-3 | |

* Students in the JD/MSW program must successfully complete at least 12 credits from the following list.

Social Work M.S.W.

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, management and community practice, and child welfare. 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," "management and community practice," or "child welfare" 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. The child welfare concentration prepares students for practice in public and private child welfare settings integrating micro and macro practice models.

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 and political, religious, or sexual orientation.

Admission Requirements

An applicant must have the following:

1. For the Regular M.S.W. program: A minimum overall grade point average of 2.75 on a 4.00 scale for the bachelor's degree, or a grade point average of 3.00 in the last 60 credits of undergraduate study leading to the bachelor's degree. An earned bachelor's degree in social work from an accredited program or a degree in another field.
2. For the Advanced Standing M.S.W. program: A minimum G.P.A. of 3.25 in the last 60 credits leading to the bachelor's degree in social work from an accredited social work program.
3. Completion of the following liberal arts courses: English composition or literature courses; collegelevel 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.

4. 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.
5. 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.

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, regular or advanced standing.). 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 fulltime or part-time program. Students working 20 hours a week or more are strongly advised to apply to the part-time program.

Degree Requirements

I. Regular M.S.W. Program - Total Credits: 60

Foundation courses required for all regular M.S.W. program students:

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 Practice 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 concentration

For students pursuing the Direct Practice concentration, the following courses are required in addition to the foundation courses:

SW 707 - Developing Cross Cultural Competence
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

In addition, students must complete 15 graduate elective credits.

Management and Community Practice concentration

For students pursuing the Management and Community Practice concentration, the following courses are required in addition to the foundation courses:

SW 707 - Developing Cross Cultural Competence
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

In addition, students must complete 15 graduate elective credits.

Child Welfare concentration

For students pursuing the Child Welfare concentration, the following courses are required in addition to the foundation courses:

SW 779 - Field Practicum (APP) III
SW 786 - Child Welfare Program Evaluation
SW 789 - Field Practicum II (Child Welfare)
SW 790 - Family-Based Practice
SW 793 - Child Welfare Policy and Services Credits 3
SW 797 - Culturally Competent Child Welfare Practice
SW 798 - Child Welfare Administration and Supervision

In addition, students must complete 9 graduate elective credits.

II. Advanced Standing Program - Total Credits: 42

The requirements of the Advanced Standing program are as follows:

Summer Bridge courses required for all advanced standing M.S.W. students.

SW 709 - Social Work Policy Seminar
SW 745 - Seminar: Human Behavior and the Social Environment

SW 746 - Social Work Research Seminar
SW 780 - Social Work Practice Seminar

Direct Practicce

Advanced standing students pursuing the Direct Practice concentration follow the same course of study as Direct Practice concentration courses.

Management and Community Practice

Advanced standing students pursuing the Management and Community Practice concentration follow the same course of study as list above under Management and Community Practice concentration courses.

Child Welfare

Advanced standing students pursuing the Child Welfare concentration, follow the same course of study as listed above under Child Welfare concentration courses.

Other Degree Requirements

The other degree requirements include the completion of course work with a minimum overall grade point average of 3.00 on a 4.00 scale and a passing score on the comprehensive examination. Those choosing the thesis option will enroll in SW 796 - Thesis for 2 semesters (instead of two elective courses) and will orally defend the thesis before a chosen committee.

Course Descriptions

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.

SW 605 - Group Practice

SW 622 - AIDS: An Interdisciplinary Perspective

SW 641 - Social Work with the Elderly

SW 661 - Seminar: Contemporary Issues in Social Welfare

SW 662 - Issues in Child Welfare

SW 670 - Community Organization Practice

SW 672 - Principles of Family Counseling

SW 674 - Grant Writing and Management

SW 675 - Treatment of Addictions

SW 676 - Legal and Ethical Issues in Social Work

SW 678 - Global Child Welfare

SW 693 - Gandhian Welfare Philosophy and Nonviolent Culture

SW 694 - Eastern Conceptions and Social Work Practice

Note: The 600-level courses listed above have been approved for graduate credit. A full description of this course may be found in the Undergraduate Catalog under the corresponding 400 number.

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** SWK 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** SWK 720 and SWK 730 or SWK 780.

SW 707 - Developing Cross Cultural Competence

Credits 3

Sensitizes students to the strengths, problems and issues in working with groups of color. Provides an understanding of the cultural and behavioral patterns of ethnic communities with a framework for utilizing this knowledge in social work practice. **Prerequisites** Graduate standing in social work.

SW 709 - Social Work Policy Seminar

Credits 3

Critical analysis of social policy necessary for advanced social work practice. **Prerequisites** Advanced standing in social work.

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** SWK 793 or concurrent enrollment in SWK 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. Graduate standing in social work.

SW 716 - Social Work Research I
Credits 3

Provides an understanding of the scientific-analytic 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 Practice I
Credits 3

Foundation field practicum course requires 150 hours of generalist social work practice experience in a social service agency and attendance in weekly field seminar classes. Provides broad range of experiences, from micro to macro levels of intervention. Ongoing professional field supervision/consultation also required. **Prerequisites** Graduate standing in social work. Corequisite Enrollment in SWK 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 SWK 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** SWK 716

SW 729 - Foundation Practicum II
Credits 3

Foundation field practicum course requires 150 hours of generalist social work practice experience in a social service agency and attendance in weekly field seminar classes.

Provides broad range of experiences, from micro to macro levels of intervention. Ongoing professional field supervision/consultation also required. **Prerequisites** SWK 719 Corequisite Enrollment in SWK 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** SWK 719, SWK 720 Corequisite Enrollment in SWK 729.

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** SWK 729 or Advanced Standing. Corequisite Enrollment in SWK 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** SWK 730 or advanced standing. Corequisite Enrollment in SWK 739.

SW 745 - Seminar: Human Behavior and the Social Environment
Credits 3

Provides advanced standing students with the theories and knowledge of human behavior necessary for advanced social work practice. Individual, family, group, organization, and community systems studied within a framework which emphasizes the diversity of human experience, strengths and empowerment perspectives, and efforts to promote social change and social justice. **Prerequisites** Advanced standing in social work.

SW 746 - Social Work Research Seminar
Credits 3

Overview of the scientific method and research methodology including descriptive and inferential statistics and application of qualitative and quantitative analysis to

empirical research problems at the micro and macro levels, with special reference to diverse and oppressed populations.

Prerequisites Advanced standing in social work.

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. **Prerequisites** SWK 720 and SWK 730, or SWK 780.

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 SWK 739 Corequisite Enrollment in SWK 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** SWK 740 Corequisite Enrollment in SWK 749.

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** SWK 729 or advanced standing. Corequisite Enrollment in SWK 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** SWK 729 or advanced standing. Corequisite Enrollment in SWK 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 704) **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** SWK 759 or advanced standing. Corequisite Enrollment in SWK 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** SWK 760 Corequisite Enrollment in SWK 769.

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 SWK 769 Corequisite Enrollment in SWK 780.

SW 780 - Social Work Practice Seminar

Credits 3

Generalist social work practice, including values, knowledge, and skills essential for working with client systems of individuals, families, groups, organizations, and communities. Focuses on person-in-environment; a strengths perspective; diversity issues; skills in assessment and intervention of individuals, families, and groups; organizational and community developments, and social change. **Prerequisites** Advanced standing in social work.

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** SWK 716, SWK 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** SWK 710, SWK 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** SWK 701 and SWK 703.

SW 795 - Advanced Seminar on the Theory of Social Intervention

Credits 3

An exploration of the claims and scope of a variety of intervention theories contrasted with their direct outcomes and their social role. **Prerequisites** At least fifteen credits in social work courses.

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** SWK 716, SWK 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** SWK 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 SWK 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; SWK 7001.

SW 7005B - Professional Presentation - Forensic Social Work

Credits 3

Alternative to SWK 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 SWK 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, SWK 7001.

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