



**Undergraduate Catalog** 



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New Mexico Highlands University is accredited by the Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1411, Phone: 800.621.7440 / 312.263.0456 | Fax: 312.263.7462 | info@hlcommission.org. Highlands University is currently on probation from the HLC; please see the accreditation section in this document for more information. To review or receive a copy of the Highlands University's HLC Affiliation Status Report, please see the NMHU website or contact the Provost's office.

New Mexico Highlands University reserves the right to change its instructional programs at any time. The provisions of this catalog are not to be regarded as an irrevocable contract between the student and New Mexico Highlands University. Course descriptions in this catalog are correct at the time of publication. See the Summary Class Schedule on Self Service Banner (My NMHU) (make hyperlink to <a href="https://www.nmhu.edu">www.nmhu.edu</a>) for updates to courses.

New Mexico Highlands University does not discriminate on the basis of disability, race, color, religion, national origin, age, sex, or sexual orientation in employment, admission, programs or services.

Any student who feels he or she has been discriminated against is encouraged to file an incident report form with the Office of the Dean of Student Affairs. For more information, please refer to the Highlands University Student Handbook or the NMHU website at www.nmhu.edu/handbook.

All Highlands University educational programs and activities will be made accessible to students with disabilities upon request in accordance with the Americans With Disabilities Act (ADA). If you believe that you have a physical, learning, or psychological disability that requires an academic accommodation, contact the Coordinator of Accessibility Services by phone at (505) 454-3188 or 454-3252, via email at <a href="disabilities@nmhu.edu">disabilities@nmhu.edu</a>, or visit the Felix Martinez Building, Room 111 on the Las Vegas campus. If you need this catalog upon in an alternative format, you may also contact the Coordinator of Accessibility Service at <a href="disabilities@nmhu.edu">disabilities@nmhu.edu</a>.

Retention and graduation rate information can be obtained from the Office of Institutional Effectiveness and Research at  $\frac{\text{http://www.nmhu.edu/institution-al-research/enrollment-and-retention/}{\text{model of the Office of Institutional Effectiveness}}$ 

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## **ACADEMIC MAJORS/MINORS/** CONCENTRATIONS/CERTIFICATES

AA= Associate of Arts, AS= Associate of Science, BA = Bachelor of Arts, BBA = Bachelor of Business Administration, BFA = Bachelor of Fine Arts, BS = Bachelor of Science, BSN = Bachelor of Science Nursing, BSSD = Bachelor of Science Software Development, BSW=Bachelor of Social Work

## College of Arts & Sciences

www.nmhu.edu/current-students/graduate/arts-and-sciences

## **Department of Biology**

Biology (BA, BS, or Minor) Concentration: Teaching

#### **Department of Chemistry**

Chemistry (BA, BS, or Minor) Concentration: Biochemistry (BA)

## **Department of Computer & Mathematical Sciences**

General Engineering (AS)

Computer Science (BA, BS, or Minor)

Concentrations:

Individualized Program (BA, BS)

Information Systems (BA)

Software/Hardware Systems (BS)

Mathematics (BA, BS, or Minor)

Computer & Mathematical Modeling (BS)

Math/Computer Science for Secondary School Teachers (BA)

Math/Computer Science for Elementary School Teachers (Minor)

Physics (Minor)

## **Department of English and Philosophy**

English (BA or Minor) English Writing (Minor)

#### **Department of History and Political Science**

History (BA or Minor)

Political Science (BA or Minor)

Concentrations:

Law Emphasis

Liberal Arts

## **Department of Languages & Culture**

Spanish (BA or Minor)

Spanish for Elementary and/or Secondary School Teachers (K-12) (BA)

Native American/Hispanic Cultural Studies (Minor)

## **Department of Visual and Performing Arts**

Fine Arts (BA, BFA, or Minor)

Concentrations:

Pre-Professional (BFA)

Interdisciplinary (BFA)

K-12 Education

Liberal Arts (BA)

General Music (AA)

Music Production (AA)

Musical Theater (AA)

Music (BA, BFA, or Minor)

Concentrations:

Music Technology and Composition (BA)

Music Education (BA)

Music Vocal Performance (BFA)

Music Production (BFA)

Universal Music (BA)

Theater Production (AA)

Art History (Minor)

## **Department of Exercise and Sport Sciences**

Health (BA or Minor)

Concentrations:

Health Education

Health Promotion and Wellness

Pre-professional Allied Health

Human Performance and Sport (BA, or Minor)

Concentrations:

Exercise Science

Physical Education

Recreation & Sport Management

Coaching (Minor)

Recreation (Minor)

#### **Department of Natural Resources Management**

Environmental Geology (BS)

Concentrations:

Geology

Water Resources

**Environmental Science** 

Forestry (BS)

Concentrations:

Wildland Fire

Forestry Management

Conservation Management (BA)

Geology (Minor)

Environmental Science (Minor)

Geographic Information Systems (GIS) (Minor, or Certificate)

Forest Watershed Management (Certificate)

## **Department of Nursing**

Nursing (BSN) (Licensed RNs only)

## Department of Sociology, Anthropology and Criminal Justice

Social & Behavioral Science (AA)

Sociology/Anthropology (BA)

Concentrations:

American Indian Studies

Anthropology

Criminology

Sociology

Criminal Justice Studies (BA, or Minor)

Sociology (Minor)

Anthropology (Minor)

## **Department of Psychology**

Psychology (BA, BS, or Minor)

#### Interdepartmental

University Studies (BA)

General Science for Secondary Teachers (BA)

Concentrations:

Biology

Chemistry

Geology

Cognitive Science (Minor)

Combined Science (Minor)

General Science for Elementary, Teachers (Minor)

Honors (Minor)

Womens Studies (Minor)

# School of Business, Media and Technology

www.nmhu.edu/current-students/undergraduate/school-of-business-media-and-technology/

#### **Business Administration**

Bachelors of Business Administration (BBA)

Concentrations:

Accounting

General Business

Finance

Management

Marketing

Media Marketing

#### Minors:

Accounting

General Business

Finance

Management

Marketing

## Certificates:

Accounting

Finance

Human Resource Management

Media Marketing

## **Department of Media Arts and Technology**

Software Systems Design (BSSD, or Minor)

Media Arts (BA, or Minor)

Media Arts (BFA)

Concentrations:

Interactivity and Multimedia

Photographic Imaging

Visual Communication

Video and Audio

Certificate:

Interactive Cultural Technology

## **School of Education**

www.nmhu.edu/current-students/undergraduate/education/school-of-education-departments/

## **Department of Teacher Education**

Early Childhood Multicultural Education (AA, BA, or Minor)

Elementary Education (AA, or BA)

English as a Second Language (Minor)

Bilingual Education (Minor)

Secondary Education (Minor, or Certificate)

## **Department of Special Education**

Special Education (BA, or Minor)

## **Facundo Valdez School of Social Work**

www.nmhu.edu/current-students/graduate/social-work/

Social Work (BSW)

## **New Mexico Highlands University**

New Mexico Highlands University was first established as New Mexico Normal School in 1893, primarily offering teacher education. Today, Highlands University is a nationally-recognized Hispanic Serving Institution and a regional comprehensive university offering a wide array of graduate and undergraduate programs in arts and sciences, business, education, media arts, technology, and social work. Through distance education, online courses, and on-site instruction, Highlands University has extended some degree-completion undergraduate and graduate programs to centers located in Albuquerque, Farmington, Rio Rancho, and Santa Fe.

Highlands University serves a diverse population of students with an enrollment of approximately 3,500 students who attend the main campus in Las Vegas and throughout the centers across New Mexico. Highlands' programs focus on its multiethnic student body, especially the Hispanic and Native American cultures of New Mexico. The University is committed to excellence in the transmission, discovery, preservation, and application of knowledge itself to maintain a progressive, forward-looking posture responsive to the changing social environment, as to shape the direction the institution will take with respect to anticipated demands and approaching opportunities.

As part of its mission to provide opportunities to the individual student through personal attention, Highlands maintains open enrollment, small classes, and low tuition. It is known nationwide for its research activities, student and faculty achievement, and opportunities for students to combine study with real-world experience. Highlands University students' and faculty consistently receive national and international recognition for many of their achievements and have opportunities to network with other researchers and professionals in their areas of interest.

The Undergraduate Catalog 2017-2018 is a description of New Mexico Highlands University's academic programs and courses of instruction. Although much effort has been made to ensure accuracy, error or omissions may be present. All official correction to this catalog are on file with the Office of the Registrar.

The administration and faculty of New Mexico Highlands University believe that the educational programs of the university are effective and valuable. However, the ultimate results of the programs offered, in terms of such matters as achievement, employment, and professional licensing, are also dependent on factors beyond the control of the university, such as individual student initiative, governmental or institutional regulations, and market conditions. Therefore, New Mexico Highlands University makes no representation or guarantee that following a particular course or curriculum will result in specific achievement, employment admission to other programs, or professional licensing.

## Mission

New Mexico Highlands University is a public comprehensive university serving our local and global communities. Our mission is to provide opportunities for undergraduate and graduate students to attain an exceptional education by fostering creativity, critical thinking and research in the liberal arts, sciences, and professions within a diverse community.

#### **Vision Statement**

Our vision is to be a premier university transforming lives and communities now and for generations to come.

## **Core Values**

#### Excellence

We strive to excel in all that we do. Excellence shapes our choices and actions in education, research, creative activities, and service.

#### **Diversity**

As a Hispanic-Serving Institution (HSI), and an aspiring Native American-Serving Non-Tribal Institution (NASNTI), we welcome national, international, and indigenous students, and consider diversity as our strength.

We acknowledge and embrace the cultural values, experiences and multiple identities within our community through inclusion and fairness.

#### **Accessibility**

We commit to provide opportunity and affordability to all students and professional advancement for all staff and faculty.

#### Responsiveness

We collaboratively and efficiently address internal and external issues in a timely and respectful manner.

## **Expectations Of Our Graduates:**

- 1. Mastery of content knowledge and skills
- 2. Effective communication skills
- 3. Critical and reflective thinking skills
- 4. Effective use of technology

## Strategic Goals 2020

- Highlands University will achieve academic excellence, academic integration, and student success.
  - We commit to establishing and strengthening systems, structures, and programs to enhance students' holistic well-being and success at all levels of study (including life-long learning), through the delivery of High-Impact Practices such as, research and creative opportunities, increased student engagement, and service learning.
- 2. Highlands University will achieve strategic enrollment management. We commit to establishing and implementing a strategic enrollment management plan that includes target enrollments, recruitment, and retention strategies for all academic degree programs and all locations.
- 3. Highlands University will achieve a vibrant campus life.

  We commit to enhancing campus life for students, staff, faculty, alumni and community through expanded intellectual and recreational programs and services at the main campus and Centers, with a commitment to safety and inclusion.
- 4. Highlands University will be a community partner.

  We commit to developing, expanding, and enhancing collaborative
  - community partnerships for mutual benefit in the areas of leadership, community and economic development, community service, academic enrichment, entertainment, and recreation.
- Highlands University will achieve technological advancement and innovation.
  - We commit to using technology strategically to support quality, efficiency, and innovation in daily operations, student support services, and teaching and learning.
- Highlands University will achieve enhanced communication and efficiency.
  - We commit to engaging in proactive communication at all levels to provide efficient and effective services.

More information online at www.nmhu.edu/highlands2020/

#### Accreditation

New Mexico Highlands University is accredited by the Higher Learning Commission (HLC), an independent corporation that was founded in 1895 as one of six regional institutional accreditors in the United States. HLC accredits degree-granting post-secondary educational institutions in the North Central region, encompassing 19 states. Accreditation is the recognition that an institution maintains standards requisite for its graduates to gain admission to other reputable institutions of higher learning or to achieve credentials for professional practice. The goal of accreditation is to ensure that education provided by institutions of higher education meets acceptable levels of quality. Their Mission is serving the common good by assuring and advancing the quality of higher learning.

On August 31, 2016, the HLC noted that Highlands has been placed on probation because the HLC Board determined that the University was out of compliance with some of HLC's Criteria for Accreditation. The Board took this action because of a number of concerns related to staffing and in-

stitutional support, assessment, retention and completion rates, governance, and institutional planning.

Probation is a public status signifying that an accredited institution is no longer in compliance with one or more of HLC's Criteria for Accreditation. The period of probation is not more than two years from the date that the Board placed the institution on probation. During the probation period, the institution remains accredited and has the opportunity to remedy the concerns noted.

The University is required to file an Assurance Filing no later than November 1, 2017 providing evidence that the University has resolved the concerns of the Board identified in the probation action and evidence that it meets the Criteria for Accreditation. The University will be required to host a comprehensive evaluation no later than December 2017 to demonstrate the concerns of the Board identified in its action have been resolved and the Criteria for Accreditation have been met.

At its meeting in June 2018, the Board will review materials related to this evaluation and determine whether the University can be removed from probation.

In most cases, because institutions on probation remain accredited, other institutions of higher education will continue to accept the institution's credits in transfer or for admission to a program at a higher degree level. However, students enrolled at an institution on probation and interested in pursuing a higher degree or transferring should contact any institution they plan to attend in the future to confirm the institution's admission and transfer policies. Highlands remains 100% committed to the accreditation process, and we look forward to working with the entire campus community to strengthen our University by resolving these issues.

#### **About the Higher Learning Commission**

The Higher Learning Commission accredits approximately 1,000 colleges and universities that have a home base in one of 19 states that stretch from West Virginia to Arizona. HLC is a private, nonprofit regional accrediting agency.

Faculty, staff, students, parents, and others from the general public with questions regarding HLC's work should contact the Higher Learning Commission by email at <a href="mailto:info@hlcommission.org">info@hlcommission.org</a> or by phone at 312-263-0456.

For Highlands specific questions, please contact us at <a href="hllcinfo@nmhu.edu">hllcinfo@nmhu.edu</a> or visit our accreditation website at <a href="www.nmhu.edu/hlc">www.nmhu.edu/hlc</a>.

## **Campus Links**

Academic Affairs

www.nmhu.edu/vice-president-of-academic-affairs/

Academic Calendar

www.nmhu.edu/current-students/academic-calendar/

Academic Support/Advisement/Testing www.nmhu.edu/office-of-academic-support/

Accreditation

www.nmhu.edu/hlc

Admission of Students - Undergraduate www.newmexicohighlands.com/apply

 $Admission\ of\ Transfer\ Students-Undergraduate$ 

www.nmhu.edu/admissions/undergraduate-transfer-admissions/

Admission of Students - Graduate

 $\underline{www.nmhu.edu/admissions/graduate\text{-}admissions/}$ 

Albuquerque Center

www.nmhu.edu/statewide-centers/highlands-albuquerque/

ARMAS – Achieving in Research Math and Science STEM Student Support Center

www.nmhu.edu/student-support-services-armas-in-education/

Athletics

nmhucowboys.com/

Board of Regents

www.nmhu.edu/board-of-regents/

Business Office/Cashier/Student Accounts

www.nmhu.edu/campus-services/business-office/

Campus Life and Conferences

www.nmhu.edu/current-students/campus-life/office-campus-life-conferences/

Campus Police

www.nmhu.edu/campus-police/

Career Services Center

www.nmhu.edu/career-services-center/

College of Arts and Sciences

www.nmhu.edu/current-students/graduate/arts-and-sciences/

Commencement

www.nmhu.edu/commencement/

Dean of Students

www.nmhu.edu/office-of-the-dean-of-students/

Degree Audit – student degree plans

https://banweb.nmhu.edu/prod/DW Advisor.P SignOn

Desire2Learn/E-courses

www.nmhu.edu/current-students/e-courses/

Educational Outreach Services/Distance Education

www.nmhu.edu/statewide-centers/educational-outreach-services/

Financial Assistance

www.nmhu.edu/financial-aid/

Faculty-Staff Directory

www.nmhu.edu/faculty-staff-directory/

Facundo Valdez School of Social Work

www.nmhu.edu/current-students/graduate/social-work/

Farmington Center

www.nmhu.edu/statewide-centers/highlands-farmington-center/

First Year Experience-Learning Communities

www.nmhu.edu/current-students/first-year-experience-learning-communities/

HU Cares/Student Advocacy and Support

www.nmhu.edu/campus-life/hu-cares/

Highlands Homepage

www.nmhu.edu

Future Students: www.nmhu.com

HiSET Exam

http://hiset.ets.org/

Human Resources

www.nmhu.edu/human-resources/

Institutional Effectiveness and Research

www.nmhu.edu/institutional-research/

International Students

www.nmhu.edu/international-students/

Intramurals

www.nmhu.edu/the-office-of-campus-life/intramurals

Language Learning Center www.nmhu.edu/Language-learning

Library

www.nmhu.edu/library/about-the-libraryNative American Student Services www.nmhu.edu/native-american-student-services

NetTutor 24/7 free online tutoring services www.nmhu.edu/student-support-services/

NMHU Alumni

nmhufoundation.org/nmhu-alumni

NMHU Foundation/Donations and Community Engagement <a href="mmhufoundation.org">mmhufoundation.org</a>

Office of the Dean of Students

www.nmhu.edu/office-of-the-dean-of-students/

Outdoor Recreation Center

www.nmhu.edu/outdoor-recreation-center/

Post Office

www.nmhu.edu/?page\_id=21201

President's Office

www.nmhu.edu/presidents-office/

Purple Pub Computer Lab www.nmhu.edu/?page\_id=21205

Registration

www.nmhu.edu/office-of-the-registrar/registration/

Rio Rancho Center

www.nmhu.edu/statewide-centers/highlands-rio-rancho-center/

Santa Fe Center

www.nmhu.edu/statewide-centers/highlands-santa-fe/

Scholarships

www.nmhu.edu/financial-aid/scholarships/

School of Business, Media and Technology

www.nmhu.edu/current-students/undergraduate/school-of-business-

media-and-technology/

School of Education

www.nmhu.edu/current-students/undergraduate/education/school-of-

education-departments/

Self-Service Banner - MyNMHU

https://banweb.nmhu.edu/prod/twbkwbis.P\_GenMenu?name=homepage

Strategic Enrollment Management

www.nmhu.edu/strategic-enrollment-management/

Student Employment

www.nmhu.edu/career-services/jobs/

Student Government

 $\underline{www.nmhu.edu/associated\_students\_of\_new\_mexico\_highlands\_university/}$ 

Student Handbook

www.nmhu.edu/student-handbook/

Student Housing

www.nmhu.edu/highlands-university-housing/

Summary Class Schedule

https://banweb.nmhu.edu/prod/wwckschd.p\_disp\_dyn\_sched

Technical Help for Self-service Banner

www.nmhu.edu/information-technology-services/technical-help-forstudents/

Transcripts

www.nmhu.edu/office-of-the-registrar/transcripts/

Tuition and Fees

www.nmhu.edu/office-of-the-registrar/tuition-and-fees/

TTY Switchboard 505.454.3003

Women's Center

www.nmhu.edu/campus-life/womens-center/

Writing Center

www.nmhu.edu/writing-center/

## **About this Catalog**

The Undergraduate Catalog 2017-2018 is a description of New Mexico Highlands University's policies, undergraduate academic programs, and courses of instruction. Although much effort has been made to ensure accuracy, errors or omissions may be present. All official corrections to this catalog are on file with the Office of the Registrar. The General Information and Policy section of this catalog are continuously updated on Highlands' website, www.nmhu.edu. Course descriptions in this catalog are correct at the time of publication. See the Summary Class Schedule on Self Service Banner (MyNMHU) for updates to courses. The administration and faculty of New Mexico Highlands University believe the educational programs of the University are of high quality and Highlands graduates have excelled in a variety of careers. However, the ultimate results of the programs offered - in terms of achievement, future employment, and professional licensure - are also dependent on factors beyond the control of the University, such as individual student initiative and responsibility, governmental or institutional regulations, and market conditions. Therefore, New Mexico Highlands University makes no representation or guarantee that following a particular course or curriculum will result in specific achievement, employment, admission to other programs, or professional licensure.

New Mexico Highlands University reserves the right to change its instructional programs at any time. The provisions of this catalog are not to be regarded as an irrevocable contract between the student and New Mexico Highlands University. Course descriptions in this catalog are correct at the time of publication. See the Summary Class Schedule for updates to courses.

## Code of Conduct

The Highlands University Student Handbook, that is published each year, describes student services, the Code of Student Conduct, and related policies and procedures. Administered by the Dean of Student Affairs, the code sets the standards and expected behavior of students. Procedures for hearings, appeals, grievances, and complaints of discrimination/harassment are outlined in the Handbook. The Handbook is provided to new students; it may be downloaded at <a href="https://www.nmhu.edu">www.nmhu.edu</a>, or a copy may be obtained from the Office of Dean of Students, Box 9000, Las Vegas, NM 87701.

Highlands University prohibits the use, distribution, manufacture, or possession of controlled substances on university property or as any part of any university activity.

# Students with Disabilities/Academic Accommodations

Students with a documented disability are eligible to receive appropriate and reasonable academic accommodations or auxiliary aids in accordance with the legal requirements of the Americans with Disabilities Acts (ADA), the ADA Amendments Act of 2008, the Vocational Rehabilitation Act of 1974 (as amended), and other laws governing the disabled. Accessibility Services also adheres to the professional code of conduct promulgated by the Association of Higher Education and Disability (AHEAD). Students wishing to receive academic accommodations may provide complete documentation to Accessibility Services as early as possible prior to each semester. It is the responsibility of the student to disclose a disability, to provide appropriate documentation from a qualified professional identifying the disability and recommend accommodation, and to request accommodations. To receive academic accommodations during attendance at New Mexico Highlands University, each student may supply appropriate clinical documentation of his or her disability. Each student must also submit a completed Highlands University Accessibility Services Application packet and a copy of his or her class schedule. Copies of these forms are available from Accessibility Services. Students approved for accommodations are expected to meet the same standards of academic performance as students without disabilities.

Accessibility Services is located in Suite 130, Room 134 of the Felix Martinez Building and may be reached at 505.454.3252 or via email at <a href="mailto:disabilities@nmhu.edu">disabilities@nmhu.edu</a>. Out-of-classroom accommodations are governed by the policy

set forth in the previous paragraph. If a student needs auxiliary aids or services to participate in Highlands University programs, write to Accessibility Services, New Mexico Highlands University, Box 9000, Las Vegas, NM 87701 or email disabilities@nmhu.edu.

#### **Deadlines**

Students are strongly encouraged to document their disability and meet with office staff as early as possibly to ensure that the appropriate accommodations are in place before classes begin. If a situation arises during the semester, accommodations will be reviewed on a case-by-case basis. Accommodations will be in effect from the date of approval of a completed application.

#### **Conduct Notice**

Students with disabilities are held responsible for the same university standards of conduct as students without disabilities.

Disability-related records, including medical records, are confidential material and will be protected in accordance with FERPA regulations. Records are only used to assist in providing appropriate academic accommodations to the student.

Service animals are welcome on campus provided they meet all legal requirements. Service animals that present a health or safety threat to the campus community (including cleanliness issues) will be banned from campus unless significant preventive actions are taken by the owner to ensure future compliance.

More information about the policy and procedures relating to services to students with disabilities is in the Accessibility Services Handbook, incorporated herein by reference. This Handbook may be requested from Accessibility Services or may be downloaded from the Highlands University website, <a href="https://www.nmhu.edu/access">www.nmhu.edu/access</a>.

## **Athletics**

Highlands University is a member of the Rocky Mountain Athletic Conference, NCAA Division II and fields eleven teams: five men's and six women's. They include baseball, women and men's basketball, women and mem's cross-country, football, women's soccer, softball, women's track & field, volleyball, and wrestling. NMHU also sponsors Vato's men's rugby as a club sport.

## **Undergraduate Admissions**

# Student Recruitment & Undergraduate Admissions Office

Felix Martinez Building Room 110

Box 9000 Las Vegas, New Mexico 87701

Admissions 505-454-3394 admissions@nmhu.edu
Recruitment 505-454-3394 recruitment@nmhu.edu
Campus Tours 505-454-3472 campustours@nmhu.edu
Toll Free 800-338-6648 Fax 505-454-3511

## **Academic Calendar**

www.nmhu.edu/current-students/academic-calendar/

## **Application for Admission**

The online application for admission may be obtained at: <a href="www.newmexicohighlands.com/apply">www.newmexicohighlands.com/apply</a>. An application can be obtained from New Mexico Highlands University by calling 505.454.3394 or writing to:

Office of Student Recruitment & Undergraduate Admissions Box 9000

Las Vegas, NM 87701

Applications for undergraduate admission will be considered at any time; however, to ensure timely action on the application, students are advised to submit the completed application materials during the following suggested periods:

- For fall semester, previous November-July
- For spring semester, previous July-December
- For summer session, previous January-May

Timely application for admission is essential to process applications to allow adequate time to seek academic support and financial assistance. Students are advised to consult the appropriate sections of this catalog for information about application procedures at Highlands University.

Only students who have been admitted to Highlands University are allowed to register for classes.

#### Admission Criteria (subject to change)

Admission procedures and requirements vary in each of the four categories listed below. (Any applicant under the age of 16 must be reviewed by a special admissions committee.)

- First-time Freshmen (first time in college after high school).
- Transfer Students (last attended another institution).
- Readmit students (students who stopped attending for three or more sessions).
- Non-Degree Students (presently not seeking a degree).

For all categories, the University requires full academic disclosure on the application forms. Any student found guilty of non-disclosure or misrepresentation on an application is subject to disciplinary action, including possible dismissal from the University.

Transcripts and test scores submitted to New Mexico Highlands University for admission become the property of the University and will not be sent elsewhere or returned to the student.

All applicants must include information about prior criminal history as part of the application process. A committee then reviews the information. The committee takes numerous factors into consideration prior to making a decision. All applicants are afforded due process and admissions decisions are made on a case-by-case basis.

## **Degree-Seeking Students**

## First-Time Freshmen

New Mexico Highlands University considers admission for first time freshmen who submit a complete application:

- On-line undergraduate application for admission;
- •\$15, one-time, nonrefundable application fee;
- Official high school transcript indicating high school diploma from an accredited secondary school or successful completion of the national HiSET Examination. Students who receive a certificate of completion instead of a high school diploma will be encouraged to complete the HiSET Examination. If the applicant has not yet graduated from high school at the time of application, the official 6<sup>th</sup> or 7th semester transcript should include all courses completed, as well as those in progress for admission evaluation. (Admission may be given to qualified high school seniors who have not yet graduated, subject to their submitting a transcript verifying their graduation before beginning studies at the university.);
- Official college transcript (indicating dual credit and/or college coursework, if applicable);
- American College Test (ACT) or Scholastic Aptitude Test (SAT) is recommended but not required. Scores are used to help place students in the appropriate coursework as well as for scholarship awarding consideration. Submission of score reports at the time of application is suggested. Students who do not submit ACT or SAT scores will be required to take the Accuplacer placement exam prior to enrollment.

NMHU's ACT test code 2640

NMHU's SAT test code 4532

All documents should be submitted to the Admissions Office at the address above.

#### **Admissions Status**

Students are admitted into regular, probationary, or non-degree status as follows:

## **Regular Admission Status**

Regular admission is considered for students whose grade point average is above a 2.0 cumulative on a 4.0 scale.

Regular admission status students are admissible based on submission of a  $6^{\rm th}$  or  $7^{\rm th}$  semester official high school transcript for all high school courses at that point in time with a minimum high school grade point average (GPA) of a 2.0 cumulative on a 4.0 scale; submission of ACT/SAT scores are recommended for course placement and scholarship award consideration. Student must submit an official final high school transcript with graduation date following high school graduation.

## **Probationary Admission Status**

Probationary admission is considered for students whose grade point average is below a 2.0 cumulative on a 4.0 scale and will be subject to special requirements for academic performance in their freshmen year including signing an Enrollment Success Contract.

Probationary admission status students are admissible based on submission of a 6<sup>th</sup> or 7<sup>th</sup> semester high school transcript for all high school courses at that point in time with a minimum high school grade point average (GPA) less than a 2.0 cumulative on a 4.0 scale; submission of ACT/SAT scores are recommended for course placement and scholarship award consideration; submission of a personal statement outlining education goals; two letters of recommendation from secondary school personnel who can attest to the students credibility and fit for NMHU. Exception, if a student has been out of high school for more than 2 years, letters will be accepted from a mentor, colleague, community member, etc. *NOTE: Letters will not be accepted from relatives, elected officials and university regents.* Student must submit an official final high school transcript with graduation date following high school

graduation. Freshmen students admitted on academic probation are expected to meet satisfactory academic progress standards as defined below:

## Non-Degree Undergraduate Admission

Non-degree admission allows students to earn academic credit without being admitted into a degree seeking program. This status is recommended for non-traditional students who wish to begin taking academic courses at Highlands without having to take college entrance exams; and those who wish to take academic courses to prepare for graduate studies, career changes, or for professional and/or personal development. Non-degree admissions is also recommended for visiting students from other institutions. In certain circumstances, non-degree admission may be granted to enable a student to enroll while a regular admissions application is pending. Students admitted in non-degree status are not eligible for financial assistance (financial aid, student loans, or scholarships).

Non-degree undergraduate admission students are admissible based on submission of an undergraduate application for admission.

## Other Admission Opportunities

## Home-school accredited school

New Mexico Highlands University considers admission for students (minimum age 16) who have been home-schooled and attended an accredited high school. These students must submit a complete application:

- On-line undergraduate application for admission;
- \$15, one-time, nonrefundable application fee;
- Official high school transcript indicating high school diploma. If the
  applicant has not yet graduated from high school at the time of application, the official 6<sup>th</sup> or 7th semester transcript should include all courses
  completed, as well as those in progress for admission evaluation. (Admission may be given to qualified high school seniors who have not
  yet graduated, subject to their submitting a transcript verifying their
  graduation before beginning studies at the university.);
- Official college transcript (indicating dual credit and/or college coursework, if applicable); and
- American College Test (ACT) or Scholastic Aptitude Test (SAT) is
  recommended but not required. Scores are used to help place students
  in the appropriate coursework as well as for scholarship awarding consideration. Submission of score reports at the time of application is
  suggested. Students who do not submit ACT or SAT scores will be
  required to take the Accuplacer placement exam prior to enrollment.

NMHU's ACT test code 2640

NMHU's SAT test code 4532

All documents should be submitted to the Admissions Office at the address above.

Note: For coursework in progress during the application process, an additional official transcript will need to be provided for the courses that were in progress at the time of admission. A student will be denied further registration until the official documentation is received by NMHU.

#### Home-school non-accredited school

New Mexico Highlands University considers admission for students (minimum age 16) who have been home-schooled and attended a non-accredited high school. These students must submit a complete application:

- On-line undergraduate application for admission;
- \$15, one-time, nonrefundable application fee;
- Successful completion/pass of the General Educational Development (GED) test;
- Official college transcript (indicating dual credit and/or college coursework, if applicable); and
- American College Test (ACT) or Scholastic Aptitude Test (SAT) is

recommended but not required. Scores are used to help place students in the appropriate coursework as well as for scholarship awarding consideration. Submission of score reports at the time of application is suggested. Students who do not submit ACT or SAT scores will be required to take the Accuplacer placement exam prior to enrollment.

NMHU's ACT test code 2640

NMHU's SAT test code 4532

All documents should be submitted to the Admissions Office at the address above.

#### **Early Admission**

New Mexico Highlands University will admit, on a full-time basis, a limited number of highly qualified applicants who have demonstrated academic success after completion of their junior year in lieu of completing high school. To be considered for early admission, students must demonstrate a strong motivation to enter the university and have social, emotional, and intellectual maturity. These students must submit a complete application:

- On-line undergraduate application for admission;
- \$15, one-time, nonrefundable application fee;
- Official high school transcript including all courses completed, as well as those in progress with a high school grade point average of at least a 3.0 on a 4.0 scale:
- ACT score in at least the 70th percentile (nationwide norms), or a comparable SAT score;
- Two letters of recommendation letters from two high school officials and the written permission of the high school Principal; and
- Letter of permission from a parent or legal guardian.

#### **Dual Credit**

High school juniors and seniors have the opportunity to earn college credit while still enrolled in high school by taking university courses normally not offered at the high school. Dual credit students receive both high school and college credit simultaneously. Admission as a dual credit student is a non-degree status and is not considered "Early Admission" to the university. Students desiring to continue in degree seeking status after high school graduation must apply for admission and fulfill freshmen admission requirements. Students who are interested in learning more about the dual credit enrollment option should contact the Educational Outreach Services for assistance by phone 505-426-2270, toll free 877-248-9854, and/or by email eos@nmhu.edu.

All dual credit students must meet with the Dual Credit Coordinator before applying for admission. There are minimum requirements for admission to the dual credit program. Individual high schools may require higher qualifications before certifying and recommending a student. Meeting the criteria listed below does not guarantee admission. In all cases, the final admission determination will be made by the Dual Credit Coordinator.

To be considered for dual credit admissions students must meet the following requirements:

- High school junior with a 3.0 GPA OR High school senior with a 2.0 GPA:
- Submit a dual credit request form with parent/legal guardian and school signatures;
- $\bullet \ Submit\ an\ undergraduate\ admissions\ application;$
- Official high school transcript including all courses completed, as well as those in progress; and
- Submit ACT/SAT scores, students who do not submit ACT/SAT scores will be required to take the Accuplacer placement exam prior to enrollment.

Students who have previously attended Highlands as a dual credit student only need to provide parent permission and school permission by obtaining signatures on the dual credit request form.

#### **Concurrent Enrollment**

High school juniors and seniors have the opportunity to earn college credit while still enrolled in high school by taking university courses normally not offered at the high school. Admission as a concurrent enrollment student is in non-degree status and is not considered "Early Admission" to the university. Students desiring to continue in degree status after high school graduation must apply for admission and fulfill freshmen admission requirements. Parents/legal guardians are responsible for the tuition of students in the concurrent enrollment program. Students who are interested in learning more about the concurrent enrollment option should contact the Educational Outreach Services for assistance by phone 505.426.2270, toll free 877.248.9854 and/or by email eos@nmhu.edu.

All concurrent enrollment students must meet with the Dual Credit Coordinator before applying for admission. There are minimum requirements for admission to the concurrent enrollment program. Individual high schools may require higher qualifications before certifying and recommending a student. Meeting the criteria listed below does not guarantee admission. In all cases, the final admission determination will be made by the Dual Credit Coordinator.

To be considered for concurrent enrollment, students must meet the following requirements:

- $\bullet$  High school junior with a 3.0 GPA OR High school senior with a 2.0 GPA ;
- Submit a concurrent enrollment request form with parent/legal guardian and school signatures;
- Submit an undergraduate admissions application;
- Official high school transcript including all courses completed, as well as those in progress; and
- Submit ACT/SAT scores, students who do not submit ACT/SAT scores will be required to take the Accuplacer placement exam prior to enrollment.

Students who have previously attended Highlands as a concurrent enrollment student only need to provide parent permission and school permission by obtaining signatures on the appropriate form.

#### **Transfer Students**

#### **Regular Transfer Admission Status**

Regular transfer admission is considered for students who have completed 16 or more semester credit hours of college coursework provided they have at least a C or 2.0 cumulative grade point average in all college coursework. Highlands operates on a semester credit calendar. Therefore, classes from quarter system institutions will be recalculated to semester hours (one quarter hour equals .666 semester hours). Applicants with fewer than 16 semester credit hours of college coursework will need to meet the first-time freshmen admission requirements (see criteria above).

## **Probationary Transfer Admission Status**

Probationary transfer admission is considered for students who have completed 16 or more semester credit hours of college coursework and have a grade point average below a C or 2.0 cumulative grade point average in all college coursework and may be subject to special requirements for academic performance in their first year/semester. Transfer students who have completed 16 or more semester credit hours of college coursework will be admissible provided they have at least a C or 2.0 cumulative grade point average in all college coursework. Probationary admission status students are admissible based on submission of an official college transcript for all college courses at that point in time with current courses in progress with a minimum college grade point average (GPA) less than a 2.0 cumulative of a 4.0 scale; submission of a personal statement outlining educational goals; two letters of recommendation from secondary school personnel who can attest to the student's credibility and fit for NMHU. Exception, if a student has been out of high school for more than 2 years, letters will be accepted from a mentor, colleague, community member, etc. NOTE: Letters will not be accepted from relatives, elected officials and university regents.

#### Non-Degree Transfer Admission

Non-degree admission allows students to earn academic credit without being admitted into a degree seeking program. This status is recommended for non-traditional students who wish to begin taking academic courses at Highlands without having to take college entrance exams; and those who wish to take academic courses to prepare for graduate studies, career changes, or for professional and/or personal development. Non-degree admission is also recommended for visiting students from other institutions. In certain circumstances, non-degree admission may be granted to enable a student to enroll while a regular admissions application is pending. Students admitted in non-degree status are not eligible for financial assistance (financial aid, student loans, or scholarships). Non-degree transfer admission students are admissible based on submission of an undergraduate application for admission.

#### **International Students**

A statement of the detailed procedures for admission of international students is available from the International Education Center, <u>international ed@nmhu.edu</u>. International students must be formally admitted to the university before the verifications required for the F-1 student visa can be issued. For detailed information, contact the International Education Center, <u>International ed@nmhu.edu</u>.

To write or call from outside the United States:

International Education Center New Mexico Highlands University Box 9000

Las Vegas, NM, 87701, USA

Telephone: 001.505.454.3372 Fax: 001.505.454.3511

International students may not apply through the university website. They must submit a paper application. The following is required for international students who seek admission to Highlands University:

Applicants are expected to give evidence of an adequate command of the English language by earning a satisfactory score on any of the following English tests:

Test of English as a Foreign Language (TOEFL)

Composite score = 500 Paper based, 173 Computer based, and 61 Internet based

International English Language Testing System (IELTS) = Band 5.5

Step Eiken (Test in Practical English Proficiency) = Pre-1

For students applying to the School of Business, Media and Technology:

TOEFL Scores = 540 Paper based, 207 Computer based, and 76 Internet based

IELTS = Band 6.0

Step Eiken = Pre -1

Information regarding testing may be obtained from:

#### **TOEFL Services**

**Educational Testing Service** 

P.O. Box 6151

Princeton, NJ 08541-6151, USA

609.771.7100 or 877.863.3546 (Monday – Friday, 8 a.m. – 7:45 p.m. Eastern Time (New York), except for U.S. holidays)

609.771.7714 – TTY (24 hours a day, seven days a week for test takers who are deaf or hearing impaired)

www.toeflgoanywhere.org

## **IELTS Services**

www.ielts.org/contact\_us.aspx

## Step Eiken

www.eiken.or.jp/

www.stepeiken.org/forms/contact-form

All international students who seek graduate admission to Highlands University must submit a completed and signed application along with all required documents, nonrefundable \$15 USD application fee. Some programs might require additional documentation for consideration.

Applicants must submit the completed Financial Certificate form and official bank statements along with the application to New Mexico Highlands University before immigration documents can be issued to the admitted applicant.

All international student applications must be received from the country or the current residence of the applicant, no exceptions.

Applicants from other countries in which English is an official language, but not the language of the majority or of instruction will be subject to these requirements. Exceptions for providing evidence of adequate command of the English language are:

Holding citizenship in English-speaking countries.

Holding citizenship in a country where the English language is an official language and the means of instruction.

## **Applicants must:**

Possess the equivalent of a United States high school diploma (for admission as new freshmen) or be a transfer student from an approved university or college outside the United States. Transcripts and other valid records of previous schools attended should come from national examination councils (where applicable), approved colleges or universities, or other official state or federal agencies for education. These records will be evaluated for compliance with the admissions criteria of the university;

- Pay a \$15 (U.S.), one-time, nonrefundable application fee;
- Submit the completed financial certificate for international admission to issue the I-20 form.

International students who are not currently studying in the United States are not required to submit ACT or SAT scores. However, if such test has been taken by an international student, it is highly recommended that the scores be reported to New Mexico Highlands University.

International students who are currently attending a high school in the United States and will be attending Highlands University as a first time freshman are required to submit ACT or SAT scores.

## **Academic Policies and Procedures**

## **Student Email**

All NMHU students are assigned a Highlands email account. This account must be used for "Official" University communication between students, faculty, and staff members. Students may also use this account to communicate with family and friends. Please note that the password must be changed from the default password to something different. Before you can log into Desire2Learn, the password needs to be six characters long or longer and have a capital letter as well as a number. The default password is your birthday in the form of MM/DD/YY. You cannot reuse the default password. Your username and password provide access computer labs and other University services, such as Desire2Learn, Libraries, and Self-Service Banner. Look for student email access instructions on our NMHU home page at www.nmhu.edu/information-technology-services/technical-help-for-students/ or http://its.nmhu.edu/StudentEmail/index.html.

#### NMHU Student ID (Banner ID)

New Mexico Highlands University does not use your Social Security Number to identify your account. When you do business with NMHU, you may be asked for your NMHU Student ID number or your Banner ID number (@9999999). You are assigned a Banner ID when you are admitted to the university. You can find your Banner ID in the top right corner of the screen when you log in to My NMHU Self Service Banner.

## **Degree Audit**

Degree Audit is a Web-based tool for students to monitor their academic progress toward degree completion. Degree Audit allows students and their advisors to plan future academic coursework. Access to Degree Audit is www.nmhu.edu. Log-in to MY NMHU (Self-Service Banner). After you have logged into the secure area, click on Student, then Student Records, then the Degree Audit link.

## **Registration Periods**

Registration periods are announced for the fall and spring semesters and the summer session each year. The specific dates, locations, and procedures are stated online on the schedule of classes for each semester or session. The schedule of classes may be viewed online at <a href="http://www.nmhu.edu/current-students/academic-calendar/">http://www.nmhu.edu/current-students/academic-calendar/</a>. Students should receive academic advising before signing up for classes.

Early registration begins on the date noted in schedule of classes and continues through the Friday before late registration. Online registration is available through our website at <a href="https://www.nmhu.edu">www.nmhu.edu</a>. For additional information or assistance, call 505-454-3438.

Late registration extends from the first day of classes through Monday of the second week of classes in the fall or spring semester and the first week of classes in summer sessions. During late registration, the selection of classes might be limited because many classes will already be closed. For specific semester dates, refer to the appropriate schedule of classes.

## **Approved Schedules**

Each student's selection of courses is subject to approval by the assigned academic adviser. (See Undergraduate Degree Requirements regarding academic advising at Highlands University.) Requests for any exceptions to university academic regulations are reviewed by the Office of Academic Affairs for compliance with general university requirements. Students' course selections are subject to review, and a student may be withdrawn from a class if enrollment in the class violates an academic regulation of the university (such as those regulating course levels and maximum loads).

## **Auditing a Class or Classes**

Audited classes do not count toward any graduation requirements of the university and are recorded with an AU on the student's transcript. Students registered for audited courses must attend a minimum of 70 percent of the scheduled class sessions.

Students who wish to audit must request this status at the time of registering for the class or through an official change to the approved schedule of classes. Changes from audit to credit or credit to audit may only be made with the instructor approval during the first eight weeks of a semester or the first four weeks of a summer session. Any changes after the deadline will require approval from the Provost. The exact deadline for changing the credit/audit status of courses is stated in the schedule of classes for each term.

## Changes to the Approved Schedule of Classes

Changes to a student's approved schedule of classes must be made through the Office of the Registrar weekdays between 8 a.m. and 5 p.m. See the schedule of classes for additional information <a href="https://banweb.nmhu.edu/prod/wwckschd.p\_disp\_dyn\_sched">https://banweb.nmhu.edu/prod/wwckschd.p\_disp\_dyn\_sched</a>.

Instructors do not drop or withdraw students from classes. It is the student's responsibility to do so. Students who wish to drop or withdraw from all their classes must complete the formal procedure for withdrawing from school. Students who remain enrolled in a class after the deadline to withdraw will receive a grade (other than a "W") in the class.

## Adding, Dropping and Withdrawing Policies

The policy and deadlines for adding, dropping and withdrawing from courses are in compliance with state and federal policies, and designed to help a student understand their financial and academic obligations to a class or classes. Additionally, courses may be cancelled if under-enrolled, and faculty's planning for instruction may be affected by the number of enrolled students. Students that add or drop late may have a disruptive impact on faculty and other students in the class. Add, drop and withdrawal deadlines, therefore, help the university provide appropriate resources to faculty and classes. Students who add courses after they have begun are responsible for making up all missed work from before the add date in consultation with their instructors.

## Adding, Dropping and Withdrawing from Classes (for Full Term classes)

The first six days of a semester constitutes the late registration period. During this period, students may add courses to their schedule, either in substitution for a class or classes being dropped or as an increase in the number of classes. The total number of credits allowed is subject to limits stated elsewhere in this section.

During the first two weeks of the semester, students may drop classes. Tuition charges will be adjusted, and the course will not appear on the student's transcript. After the drop period, students may withdraw from classes but may no longer add new classes or substitute different classes.

Withdrawal from classes is allowed through the 10th week of the semester. The course(s) will remain on the student's transcript, recorded with a grade of "W." In addition, students will be required to pay tuition charges and fees on any classes in which they are enrolled after the end of the late registration period, even though they subsequently withdraw from them. (The late registration period is defined above.)

Any courses added to original schedule of classes throughout the semester might result in overload tuition charges.

## Adding and Dropping Classes (Summer Session)

The first week of an 8-week summer session course constitutes the late registration period. Courses must be added or dropped by Friday of the first week of the summer session. Students may withdraw from classes after this period and are required to pay tuition charges and fees as described elsewhere in this catalog. The course(s) will remain on the student's transcript, recorded with a grade of "W." For the last day to withdraw from summer term, refer to the online schedule of classes.

Summer classes shorter than 8 weeks will be defined as "Short Term" courses (see relevant sections below).

## Adding and Dropping Classes (for First or Second Half classes)

For regularly scheduled classes that meet for 8 weeks (first or second half), as defined by the Academic Calendar, the following policy applies: courses

must be added or dropped by Friday of the first week. Students have through the  $4^{th}$  week to withdraw from course(s). After the  $4^{th}$  week, students cannot withdraw and the course(s) will receive a grade (other than a "W") in the class. During the withdrawal period, students are required to pay tuition charges and fees as described elsewhere in this catalog. The course(s) will remain on the student's transcript, recorded with a grade of "W."

# Adding, Dropping and Withdrawing from Short-Term Courses (six or fewer meetings)

For short-term, or non-standard, class schedules of six or fewer meetings (or online asynchronous classes of 2 weeks or less), courses must be added by the first day of class. The last day to drop the course is the second day of class (the day after the start date for online asynchronous courses).

The last day to withdraw is the third class (the third day of the course for online asynchronous courses). The course(s) will remain on the student's transcript, recorded with a grade of "W." In addition, students will be required to pay tuition charges and fees on any classes in which they are enrolled after the end of the add/drop registration period, even though they subsequently withdraw from them.

# Adding, Dropping and Withdrawing from Short-Term Courses (seven or more meetings)

For short term, or non-standard, class schedules of seven or more meetings (or online asynchronous classes of 3-8 weeks), courses must be added by the second day of class (the day after the start date for online asynchronous courses). The last day to drop the course is the third day of class (the third day of the course for online asynchronous courses).

The last day to withdraw is the fifth class (two weeks after the start date for online asynchronous courses). The course(s) will remain on the student's transcript, recorded with a grade of "W." In addition, students will be required to pay tuition charges and fees on any classes in which they are enrolled after the end of the add/drop registration period, even though they subsequently withdraw from them.

## Adding and Dropping Classes (for Independent Study or Directed Study classes)

Students who wish to add an independent study or directed study class must do so following the add policy for full term classes, as described above. All other term policies (drop, withdraw, tuition) apply as well.

## Retroactive Add, Drop or Withdrawal

Students may petition for retroactive add, drop or withdrawal from classes if they can substantiate hardship with the above scheduling policies. Petitions for exception to policy may be obtained through the Registrar's Office. Petitions are reviewed by the VPAA/Provost and/or a faculty subcommittee of the Academic Affairs Committee who make a final determination.

#### Re-Enrollment

Any student who has not attended New Mexico Highlands University for one semester or more (excluding summer) may submit a re-enrollment form. To be eligible to re-enroll for an upcoming term, the student must satisfy the following requirement:

Student did not attend any other college or university during his or her absence, earning 16 or more college credit hours.

If a student earned 16 or more credits from another institution during his or her absence from New Mexico Highlands University, he or she must reapply for admission at the appropriate educational level. Contract the Registrar's Office at 505.454.3438 for more information. The re-enrollment form can be found on the Highlands University website at www.nmhu.edu.

## Withdrawing from the University

If a student wishes to withdraw from Highlands University, he or she must do so officially through the Registrar's Office. Students who are unable to personally appear must contact the Registrar by phone, letter, email (registrar@nmhu.edu), or fax (505-454-3552) to request assistance in completing the

process of withdrawing. The last day to withdraw from classes is subject to change and is reflected in yearly academic calendars http://www.nmhu.edu/current-students/academic-calendar/ as well as published in the Important Information document with the Summary Class Schedule on My NMHU.

Please refer to the Tuition, Fees And Financial Policies section of this catalog for a schedule of deadlines for full or partial refunds of tuition and fees.

## **Regarding Tuition and Fees**

If a formal withdrawal from school occurs within the drop period, no courses will appear on the transcript for that term. If a formal withdrawal occurs after the drop period, grades of W are entered for the classes. Students who leave school without completing an official withdrawal from school will receive grades of F for that term. The last day to withdraw from school may coincide with the last day to withdraw from class. For specific dates and deadlines, please refer to the Tuition, Fees And Financial Policies section of this catalog.

#### **Credit Hours Defined**

All classes must conform to the Federal Credit Hour Definition below. By policy, assignment of credit hours is overseen and approved by the Academic Affairs Committee, the department chair, the dean, and the provost, via the Academic Affairs Committee and the Office of Academic Affairs.

#### **Federal Credit Hour Definition:**

A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

- (I.) One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately 15 weeks for one semester or trimester hour of credit, or 10 to 12 weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or
- (II) At least an equivalent amount of work as required in Paragraph I of this definition for other activities as established by an institution, including laboratory work, online/distance/hybrid courses, internships, practica, studio work, and other academic work leading toward to the award of credit hours.  $34 \text{CFR} \ 600.2 \ (11/1/2010)$

Regular lecture courses must meet 750 minutes per credit hour and must include time for breaks. Labs require twice as much time (see the University Catalog course description for definition of specific labs). Courses that have unrestricted time, such as thesis, field project, etc., will be listed as TBA (to be announced).

## **Distance Education**

The distance learning modalities (online course types) offered at NMHU fall under one of the six following categories.

The face-to-face delivery modality is the traditional instructional method in which students and faculty meet at the same physical location at the same time. The face-to-face modality is not a distance learning modality, but is integral to some of the distance learning modalities. Therefore, there are seven course types at NMHU: face-to-face, enhanced, interactive video conferencing, hybrid, blended, synchronous, and asynchronous.

#### a. Enhanced

Enhanced delivery is a traditional, face-to-face class that meets at regularly scheduled times in a physical classroom. Then, faculty use an online learning management system (LMS) to communicate with students and provide access to course content and resources. For example, Enhanced Delivery uses the LMS as a supplement to a face-to-face class, which is the primary mode of learning.

#### b. Interactive Video Conferencing (IVC)

Faculty and students are based at a University facility, and instruction is delivered synchronously by video conferencing to classrooms at remote sites. (Formerly known as Interactive Television, or ITV.) For example, face-to-face instruction occurs in a campus classroom while being broadcast live, in

real time, to classrooms at sites.

#### c. Hybric

Hybrid courses use multiple synchronous delivery modalities (face-to face, web conferencing, teleconferencing, and/or IVC). For example, a course will have a fixed lecture time to facilitate discussion of class topics or to present assigned projects online. Although the class will be taught at a physical location, some students will be participating at remote locations live, in real-time, through the use of various instructional technologies.

#### d. Blended

Blended courses combine synchronous and asynchronous (non-simultaneous) delivery modalities. A portion of the face-to-face and/or IVC instruction (contact-time) is replaced by web-based learning activities. The asynchronous portion of class dialogue does not occur live, in real-time, but happens through web-based learning activities (course emails, discussion forums, blogs, etc.). For example, a Blended class may meet face-to-face every other week, but require asynchronous web-based instruction for the alternating weeks.

#### e. Synchronous

Synchronous delivery is online learning in which instruction and learning occur at the same time, but not necessarily in the same physical location. Students and instructors meet in regularly scheduled weekly sessions. For example, faculty will present content live, and allow the students to discuss the content and raise questions within a virtual classroom. Students and faculty communicate live, in real-time.

#### f. Asynchronous

Asynchronous delivery is online learning in which all content is delivered online with no requirement for synchronous (simultaneous) activities. Delivery of asynchronous teaching and learning enables faculty and students to address course content without being online at the same time. For example, students participate in webbased learning activities; asynchronous class dialogue does not occur live, in real-time, but happens through web-based learning activities (course emails, discussion forums, blogs, etc.).

## **Undergraduate Student Loads During a Semester**

An average of 15 semester credits must be completed each semester, excluding summer, if a student is to graduate in four years and students on the lottery and/or other scholarships must be enrolled in a minimum of 15 credit hours each semester. Some students take more than the minimum credits required for graduation, either for personal interest or because the major or minor programs of choice are lengthy. Students should plan their load carefully, considering desired speed of progress and minimum loads required for continuation of financial assistance and scholarships, and in consultation with their academic adviser.

The regular maximum load for undergraduate students is 18 semester credits. The academic dean may approve a student's schedule for an overload of more than 18 credits, provided the adviser recommends the overload, the student has a grade point average above 2.5 for the preceding semester, the student is neither engaged in formal extracurricular activities nor employed more than 20 hours per week, and the student is not on probation. No undergraduate student may take more than 22 semester credits hours. Tuition and fee information is located in the Tuition and Fee section of the catalog.

## **Undergraduate Student Loads During a Summer Session**

The regular maximum load for undergraduate students in a summer session is nine credits. The academic dean may approve a schedule for more than nine credits subject to the conditions stated above for overloads in a regular semester. No undergraduate student may take more than 12 credits in a summer session.

#### **Undergraduate Full-Time Loads**

For financial assistance purposes, a full-time undergraduate student is defined

as one who is taking at least 12 semester credits in a regular semester and six semester credits in a summer session. Requirements for full-time status vary for scholarship recipients, but frequently exceed the 12-credit minimum.

## **Classification of Undergraduate Students**

Classification of students is based on completion of semester credits and other criteria:

#### **Lower Division:**

Freshman: Fewer than 30 credits Sophomore: 30 through 59 credits

#### **Upper Division:**

Junior: 60 through 89 credits Senior: 90 credits and above

Reclassification of students occurs automatically upon completion of the prescribed number of credits. However, the chief academic officer may invoke the following additional regulations in assessing a student's preparation to take 300- or 400-level classes: sophomore students must have completed English 111; junior and senior students must have completed English 111 and 112, satisfied the mathematics proficiency requirements, and filed approved major and minor forms.

#### **Course Numbers and Levels**

Proficiency: English 106 is a proficiency course and the credits do not count toward the minimum 120 credits required for a degree, but do count in a student's course load. Math 120 is a proficiency course that counts as electives toward the minimum 120 credits required for a degree.

Lower Division Courses are numbered from 100 through 299.

Upper Division Courses are numbered from 300 through 499.

The following regulations apply to allowable course levels:

Freshman students may not enroll in 300- or 400-level courses without written consent.

Sophomore students may enroll in 300-level courses but not in 400-level courses.

Junior and senior students may take 400-level courses.

Only undergraduates with advanced standing and graduate students may enroll in 500-level courses. The 500-level course taken by an undergraduate with advanced standing will only apply to the graduate degree and not to the undergraduate degree.

Only graduate students may enroll in 600-level courses. No exceptions may be made to this rule.

## **Grades and Grading Policies**

This section states policies regarding grades given at Highlands University, computation of grade averages, academic warnings, and honors for academic excellence. Effective Fall 2015, a fractional grading system was adopted. Faculty have discretion is using fractional grading.

Student may appeal a final grade by completing and processing Grade Appeal Form available through the Office of Associate Vice President for Academic Affairs.

#### **Undergraduate Grades**

The following grades are reported for undergraduate students at the university. As appropriate, they appear on midterm reports, semester or summer term grade reports, and transcripts.

A+ = Excellent (4 points)

A = Excellent (4 points)

A-= Excellent (3.7 points)

B+ = Above Average (3.3 points)

B = Above Average (3 points)

B- = Above Average (2.7 points)

C+ = Average (2.3 points)

C = Average (2 points)

D = Below Average, but passing (1 point)

F = Failure (0 points)

Some programs may have stricter scholastic requirements; students must check with their academic adviser.

#### Marks

The following marks are reported for undergraduate and graduate students at the university. As appropriate, they appear on midterm reports, semester or summer term grade reports, and transcripts.

W – Withdrawal from the Class. Regulations for the W grade are stated in this catalog.

 $AU-Audit.\ No\ credit$  is given for the course, but attendance is required in at least 70 percent of the scheduled class sessions.

S – Satisfactory. Used for proficiency courses and some developmental courses, some practicum courses, institutes, workshops, field project, and the completed thesis. Indicates satisfactory completion of course requirements.

R – Repeat. Used exclusively for developmental and proficiency courses. Indicates that course requirements have not been satisfied and that the course must be repeated to satisfy the proficiency requirement.

U – Unsatisfactory. Used for proficiency courses and some developmental courses. Indicates unsatisfactory in course requirements.

PR – Progress. Used only for thesis, field project, senior readings, and some practicum courses (and as a midterm grade for graduate seminar courses). Indicates that acceptable progress has been made. To receive a permanent grade of S, the student re-reregisters for the course until the course requirements are completed.

NP – No Progress. Used for thesis, field project, senior readings, some practicum courses, and as a midterm grade for graduate seminar courses to indicate that acceptable progress has not been made.

I – Incomplete. Given at the discretion of the course instructor only when circumstances beyond the student's control prevent completion of course requirements within the established time. The student requests an incomplete in lieu of a final course grade from the instructor, whose approval is required. The instructor reports the I and files a form with the Office of the Registrar documenting the work requiring completion and other conditions. An incomplete not completed within one calendar year automatically becomes an F for both undergraduate and graduate students. (The instructor has the option of setting a terminal date of less than one year.) Students should not re-reregister for a course in which they have an I; if they do so, the I will become an F at the time when a grade is awarded in the reregistered course. Students are responsible for tuition for any repeated course.

CR - Credit. Used only for transfer credits.

Undergraduate Grade Point Average

Following are the allowable grades and associated grade points for undergraduate students:

$$A+ = 4.00 A = 4.00 A = 3.7 B = 3.7 B = 3.00 B = 2.7 C + 2.3 C = 2.00 D = 1.00 F = 0.0$$

The sum of the earned quality points is divided by the number of credits to calculate the grade point average (GPA). The following is a sample calculation:

A student earns the following grades in five classes during a certain semester:

```
4 hrs. A = 16.0 pts.

6 hrs. B = 18.0 pts.

3 hrs. C = 6.0 pts.

2 hrs. D = 2.0 pts.

15 hrs. = 42.0 pts.

GPA calculation is: 42.0 ÷ 15 = 2.80 grade point average.
```

GPA requirements are stated in subsequent sections.

Graduate Grade Point Average

Following are the allowable grades and associated grade points for graduate students:

$$A+ = 4.00 A = 4.00 A- = 3.7 B+ + 3.7 B = 3.00 B- = 2.7 C+ = 2.3 C = 2.00 D = 1.00 F = 0.0$$

The sum of the earned quality points is divided by the number of credits to calculate the grade point average (GPA).

## **Satisfactory Academic Progress**

Students who maintain the minimum academic standards shown in the scale below will be considered in good academic standing and will be considered to have demonstrated satisfactory academic progress. Students must show evidence of satisfactory progress toward a college degree to avoid academic probation and dismissal, and to continue to be eligible for financial aid through most financial aid programs.

## **Cumulative Credit Hours Graded/Required GPA**

1 to 30 Undergraduate Credits Graded & 1.75 Cumulative GPA

31 or More Undergraduate Credits Graded & 2.0 Cumulative GPA

## Repetition of a Course

A student may repeat any course, but will receive credit only once toward degree requirements and graduation unless otherwise noted in this catalog. The most recent grade received will be used in the calculation of the cumulative grade point average. Course Repeat Forms are available in the Office of the Registrar and must be completed by the student who is repeating a course. The student's transcript will be coded to reflect that the course was repeated, and the cumulative grade point average will be adjusted. Repeat coursework may not be eligible for financial aid and students are advised to consult with the Financial Aid Office prior to repeating any course.

#### Midterm Grades

The faculty submits midterm grades for each student in each class to the Office of the Registrar in the fall and spring semesters according to the schedule announced in the online schedule of classes. (No midterm grades are submitted for short-term courses.) These grades are displayed for viewing by the student on the Highlands University secure website, www.nmhu.edu and HU Mobile. These reports serve to inform students and advisers of a student's progress so any problems in class performance can be addressed. If discrepancies occur at this time in the student's schedule of classes, the student should proceed immediately to the Office of the Registrar to correct the schedule. Midterm grades do not appear on transcripts and are not kept as a permanent record.

#### **Honors List**

Undergraduate students earning a grade point average of at least 3.5 within a semester with no incomplete grades, and 12 graded hours, are recognized by the chief academic officer. Honors are awarded in summer terms for the same levels of performance except students must complete at least six credits.

# Cumulative Credit Hours Graded Required Cumulative GPA

1 to 29 undergraduate credits graded 1.75

30 or more undergraduate credits graded 2.0

## Academic Probation - Undergraduate

Students whose academic performance in a given semester is not satisfactory, as noted below, will be placed on academic probation:

Freshmen must earn at least a 1.75 GPA.

Other undergraduates must earn at least a 2.0 GPA.

The probationary period is for one semester. To be removed from probationary status, students must earn a satisfactory GPA as noted. A student on academic probation at another university may be admitted to Highlands University but retains probationary status.

## Academic Dismissal – Undergraduate

Degree-seeking students whose academic progress is unsatisfactory and who are placed on probation for two consecutive semesters are subject to academic dismissal and will be notified by the Office of Academic Affairs. The dismissal period may be for one semester or one calendar year. Students may appeal their dismissal to the Office of Academic Affairs. If the appeal is approved, the dismissal may be waived or shortened.

During the period of dismissal, a student may not attend classes or live in student housing.

## **Academic Integrity**

Highlands University is an academic community and, as such, is dedicated to the principles of truth and academic honesty. When a student commits

academic dishonesty, the integrity and reputation of the university is undermined.

Academic dishonesty occurs when a student engages in any of the following activities on any graded exercise or examination:

*Academic Dishonesty:* Any behavior by a student that misrepresents or falsifies the student's knowledge, skills, or ability.

*Plagiarism:* The process of using the ideas, data, written work or language of another person, and claiming it as original or without specific or proper acknowledgement, including, but not limited to, copying another person's paper, article, computer or other work and submitting it for an assignment; or copying someone else's ideas without attribution; or failing to use quotation marks where appropriate; or copying another person's idea or written work and claiming it as original without acknowledgment of the original author or creator.

*Cheating:* A student's use of, or attempt to use, unauthorized notes, texts, visual aids, electronic devices, assistance, copies of tests, material or study aids in examinations or other academic work to misrepresent his or her knowledge, skills, or abilities.

*Collusion:* Secret cooperation between students in order to cheat or plagiarize.

*Facilitation:* One student knowingly helps or attempts to help another student to violate any provision of this policy.

*Fabrication:* A student submits contrived, altered or false information in any academic work product, exercise or examination.

*Multiple Submissions:* A student submits, without prior permission, any work submitted to fulfill another academic requirement.

Falsification of Records: A student alters a transcript or academic record, without authorization, or misrepresents information on a resume, either before or after enrolling as a student in the University, to unfairly improve his or her grades or rank or those of another student.

At Highlands University, academically dishonest students are subject to a number of punitive measures by instructors or the university. These punitive measures must be supported by documentation and evidence. Students found to practice academic dishonesty are subject to expulsion from Highlands University. Accusations of academic dishonesty may be appealed through the Office of Academic Affairs. Further guidance on academic dishonesty is available in the student and faculty handbooks.

## **Class Attendance**

Persons whose names do not appear on the class list or roster are not registered for the course. Fundamentally, a person who is not registered has no relationship with Highlands University and is not entitled to any services including instruction, testing, evaluation, disability services, or submission of a grade.

Instructors may not permit students to attend classes without being registered. Students whose names do not appear on class rosters are to contact the Office of the Registrar to resolve the matter. Students can check online for the status of their class registration or enrollment.

Students are expected to attend all class meetings. Those who are absent because of circumstances beyond their control may be required to make up work missed during the period of absence. Excessive absences can adversely affect a student's grade or result in an F. Instructors should make the policies on attendance in each class available in writing to students.

If a student's conduct in class interferes with others, is disruptive of teaching, or is contrary to the established class practices, the instructor may ask the student to leave the class.

## **Scheduled Class Meetings**

No change in the scheduled class days and hours may be made without the approval of the chief academic officer and the registrar, even though all students in the class concur in the change. Any temporary departure from the schedule is to be prearranged through the chief academic officer.

Room changes may be made by instructors only through the registrar and school/college dean. Instructors are not to change rooms without this approval. Classes are not to be transferred to private facilities. Students are not to register for classes that are scheduled to meet in overlapping times or days.

#### **Final Examinations**

The schedule of final examinations is listed in the online schedule of classes for each term. The exam schedule is also noted on the university's website: <a href="https://banweb.nmhu.edu/prod/wwckschd.p\_disp\_dyn\_sched">https://banweb.nmhu.edu/prod/wwckschd.p\_disp\_dyn\_sched</a>. The final examination period for each class is a part of the semester's instructional time and is to be so used by the instructor of the course.

Any departures from the scheduled time or day for a final examination must be approved in advance by the Provost. Faculty members are not to adjust the schedule on their own initiative, even though all of the students in the class concur in the change. If a student would experience a great personal hardship through attendance at a regularly scheduled final examination, the instructor of the course may agree to give an "incomplete" or to give an individual early examination. If a student fails to take a final examination, the instructor will decide whether the grade for the course will be an F or an incomplete. Each case should be decided on its merit. Circumstances beyond the student's control should result in the I grade.

# Independent Study or Independent Research – Undergraduate

Independent study and independent research courses are for individual work by a student under supervision of a faculty member on a topic agreed upon between them. A form describing each independent study course is approved by the academic dean in which the course is offered and the Associate Vice President for Academic Affairs, and submitted to the Office of the Registrar at the time of registration. The university offers undergraduate independent study and research courses under the numbers 390, 392, 399, 490, 492, 499, and, in some cases, 290 and 299. These are variable-credit courses offering students and faculty supervisors a choice in the extent of the project and the corresponding amount of time to be spent and academic credit to be earned.

The following regulations apply to undergraduate independent study and research courses:

To be eligible to take an independent study class in a given subject, a student must have a sufficient grade point average in courses in the field and have completed basic work in the field (as determined by the college/school) to demonstrate the ability to conduct an independent investigation. Permission of the instructor is required to register for an independent study course.

For each semester credit in the independent study course, the student should expect to spend at least four hours of work per week. Faculty supervisors must schedule at least a weekly appointment with each student doing independent study under their supervision.

A written report of the work completed in independent study must be one requirement of the course.

No more than four credits of undergraduate independent study may be taken in one discipline in one term, and no more than six credits may be applied toward any major or minor program.

Independent study courses may not be used to avoid an instructor of a regular course or to substitute for a regular course because of inconvenience or careless scheduling, to extend the number of credits in a regular course, to replace payments for a work assignment, or to permit a student to add credits solely to gain financial assistance or other scholarship eligibility.

Independent study courses may not be credited toward any core curriculum or proficiency requirement.

## **Directed Study Classes**

Directed study courses are designed for an individual or a small group of students who need a particular course to complete their program of study and are

under the direction of a faculty member. The faculty member's permission is required at the time of registration for the course. The directed study form is to be approved by the dean and submitted to the Registrar's Office at the time of registration.

The content of the course and credits awarded may be that of a regularly offered course with the exception of core curriculum courses. Special circumstances under which these courses may be offered are:

The student(s) needs the class to graduate before the next time the regular course is to be scheduled.

A course substitution is not feasible.

Directed study courses are offered under the numbers 393, 493, 593, and 693. The title of the directed study must be identified on the form consistent with the course number and title that it will substitute for such as SPED 493 Classroom Management in Special Education. The course syllabus must be attached to the directed study form.

## Practicum, Internship, and Field Project Courses

These titles are used for courses that students undertake with the joint supervision of a work-supervisor and a university faculty member, either at an on- or off-campus site. Often they are offered with a variable-credit option allowing students a choice in the extent of the work and thus in the amount of academic credit to be earned.

Registration in these courses requires permission of the faculty member who will serve as faculty course supervisor.

## Testing Out of Classes by Special Examination

The following regulations apply to the testing-out procedure at the university. Permission to undertake the special examination is requested on a form available in the Office of the Registrar directly to the academic department of the course being requested to test out. The request must be approved, and the form must be submitted to the Office of the Registrar before the special examination can be administered.

Applicants for special examination must meet the conditions stated in A and B below:

A. A student is eligible to apply for special examination to test out of a class offered at the university if the student meets one of the following conditions:

A course has been taken with similar content, but credit has not been received for reasons other than failure.

There has been private tutoring, e.g., private instruction in music.

The student has had successful work experience involving extensive preparation in the field.

The student has produced a work of recognized merit or presents other evidence of mastery in the field.

B. A student eligible under A above must also:

Have been a resident student at this university for at least one semester.

Have at least a 3.0 grade point average in the field and at least a 2.0 grade point average in all previous university work.

Limit the total number of requests for special examination to 12 credits. (Exceptions to this limit must be approved by the chief academic officer.)

Obtain approval of the course instructor, the dean of the college/school in which the course is offered, and the chief academic officer.

Pay a fee of \$40 per credit hour for each special examination. Payment must be made prior to administration of the test.

Examination questions and the completed examination paper are to be filed in the Office of the Registrar.

## Student Records (Access to and Confidentiality)

Under the Family Rights and Privacy Act of 1974 (FERPA), New Mexico Highlands University students have the following rights in regards to their educational records:

The right to inspect and review their education records within a reasonable time, not to exceed 45 days, upon making an official request and obtaining an appointment to do so.

The student may challenge inaccuracies or misleading statements contained in his or her educational records. Challenges must be made in writing and forwarded to the registrar.

The right to consent to disclosure of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes exceptions without consent. Exceptions are a school official with a legitimate educational interest, compliance with judicial order or lawfully issued subpoena, officials for audit or evaluation purposes, in an emergency involving the health or safety of a student or other person and directory information.

The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. Complaints may be forwarded to:

Family Policy Compliance Office U.S. Department of Education 400 Maryland Ave, SW Washington, DC 20202-5920 800.USA.LEARN (800.872.5327)

## **Directory Information**

Directory information at New Mexico Highlands is student's name, address, email address, telephone listing, field of study, photograph, date and place of birth, major field of study, grade level, enrollment status, dates of attendance, participation in officially recognized activities, and sports; weight and height of members of athletic teams; degrees, honors, and awards received; and the most recent educational agency or institution attended. Written requests from student to have directory information withheld must be forwarded to the Registrar's office by the last day of registration per semester and will be maintained for the remainder of the academic year or until revoked by the student in writing. In accordance with 14-3-15.1NMSA, Highlands University does not release directory information for commercial or solicitation purposes. For more information, please contact the Office of the Registrar at 505.454.3455 or registrar@nmhu.edu.

## **Change of Name or Address**

Students who need to process a change of name for their academic records must bring appropriate documentation (at least two types of identification showing the new name) to the Office of the Registrar. Examples of such documentation include: marriage certificate, birth certificate, and court order for legal name change, with a copy of state-issued ID card or driver's license and or Social Security card with change. Name changes must accompany a written request for the change and will be processed only for currently enrolled students. Change of address forms are available in the Office of the Registrar. For more information, contact the Office of the Registrar at 505.454.3455 or registrar@nmhu.edu.

## Transcripts

The Office of the Registrar issues official copies of student academic records. Any student may request a transcript of his or her academic record, and it will be issued in accordance with the student's wishes subject to all transcript policies. A fee is charged for each transcript request. The cost for each transcript is \$5 for standard mail. All transcript fees are to be paid when the request is submitted. Students are advised that transcripts are not processed the same day; normal processing can take 3-5 days depending on the volume of requests, order of receipt, and occurrence during the term.

The Registrar's Office offers electronic transcript delivery. In partnership with SCRIP-SAFE International, New Mexico Highlands University can provide official electronic transcripts delivered through eSCRIP-SAFE to network and non-network recipients. To request an electronic official transcript submit an electronic request through Self-Service Banner at <a href="https://banweb.nmhu.edu/prod/twbkwbis.P">https://banweb.nmhu.edu/prod/twbkwbis.P</a> GenMenu?name=homepage, print the Transcript Request Form on our website at <a href="http://its.nmhu.edu/www/onlinedocs/index.html">http://its.nmhu.edu/www/onlinedocs/index.html</a>, and pay your transcript fee at the time of submission. Students with financial holds from the Business Office, Library etc. cannot receive any type of transcript until all obligations to the university have been met. If you have any questions regarding the delivery or authenticity of an electronic official sent from Highlands University via eSCRIP-SAFE or any of the information regarding your transcript request form, please contact Admissions at 505-454-3455 or <a href="mailto:admissions@nmhu.edu">admissions@nmhu.edu</a>.

We do not accept faxed transcript requests or send any transcripts by fax. The following information is required to process a transcript request:

- name (and other names that may appear on school records);
- NMHU Student ID number (Banner ID) or Complete Social Security Number;
- date of birth;
- approximate first semester and year attended;
- complete address where to send transcript, current address and current phone number;
- the student's signature is required to authorize the transcript's release.

For specific policies and procedures associated with requesting transcripts, contact Student Records in the Office of the Registrar at 505.454.3455. Incomplete or ineligible requests will be not processed. The Registrar's Office reserves the right to request additional identifying information.

Transcripts from other institutions sent to Highlands University for admission purposes are not copied or returned to the student.

Unofficial Transcripts may be printed through the Student Self-Service Banner at <a href="https://banweb.nmhu.edu/prod/twbkwbis.P\_Gen-Menu?name=homepage">https://banweb.nmhu.edu/prod/twbkwbis.P\_Gen-Menu?name=homepage</a>

## **Transcript Holds**

Transcripts (official or unofficial) will not be released to the student or to any other person or institution until all the student's outstanding financial obligations to the university have been paid or until satisfactory payment arrangements have been made. These obligations include, but are not limited to, loans, such as the New Mexico Student Loan Program, tuition and fees, and other charges. All financial arrangements are conducted in the Business Office, not the Registrar's Office.

## **Right to Petition for Hardship**

Students are entitled to petition for relief of an unfair academic hardship brought about by any regulation of the university, when warranted by special circumstances. Academic petitions are available under online documents from the Highlands University webpage. There are specialized forms for retroactive adds, retroactive drops, and retroactive withdrawals, and grade appeals,

There is a two-year statute of limitation; academic petitions received after a two-year period will be forwarded to the Associate Vice President of Academic Affairs for consideration.

Academic petition procedures are as follows:

- 1. Student must submit an academic petition to the Office of Academic Affairs in Rodgers Administration Building 108. All petitions must be typed.
- 2. The Office of Academic Affairs is responsible for obtaining all needed signatures, such as the department chair and dean/director signatures.
- 3. Petitions are sent via university mail by the Office of Academic Affairs to the members of the appropriate subcommittee of the faculty Aca-

demic Affairs Committee:

- a. All undergraduate petitions are sent to the members of the Undergraduate Subcommittee.
- 4. Members of the subcommittee should respond in one week to the petition. The ballot and all materials must be sent back to the associate vice president of academic affairs. The Associate Vice President of Academic Affairs is responsible for tallying the votes and informing the student of the committee's decision.
- 5. If a student's appeal is denied, the student should be informed that he or she may make a personal appeal to the subcommittee. The student may bring witnesses to the hearing. No witnesses may speak unless a member of the subcommittee asks them questions. At the hearing, the student will be asked to present evidence to support the petition.
  - a. It is the responsibility of the chair of the subcommittee to invite witnesses who may be needed to refute the academic petition. In the case of a grade appeal, the instructor, department chair, and dean may be invited to the hearing by the subcommittee.
  - b. During the hearing, witnesses are heard by the subcommittee, one at a time. All witnesses should remain outside of the hearing until called.
- 6. After the presentations, the members of the subcommittee vote on accepting or denying the petition. This information must be sent to the associate vice president of academic affairs. This office is responsible for informing the student of the decision by the committee. This is the last step of the petition process, as long as proper procedures have been followed.
- 7. The full committee of the Academic Affairs Committee will not hear academic petitions unless a violation of procedures has occurred. In the case of procedural violations, the petitions should be brought to the full committee for consideration.

## **Academic Amnesty**

## First-time Freshman Amnesty

Allow first-time freshmen students to retroactively drop one course after the standard deadline (from 1-4 credit hours, excluding integrative Seminar). A retroactive drop means that the course will not show up on the student's transcript and the student will not be billed for tuition and fees for this course. First-time freshmen that have more than one F at midterm will not be eligible for amnesty.

Eligible students that drop below 15 hours must:

In consultation with an academic advisor, add a new second half or intersession class, taught either face-to face or blended, to bring their schedule up to at least 15 credits. First-time freshmen using amnesty are not eligible to take an online course.

Sign a contract that requires attendance in the amnesty course and course study sessions, and agree to stay in contact with Student Academic Support regarding academic progress.

Understand that failure to meet contract obligations may result in the student being held responsible for any additional tuition and fees that were waived through the program.

Understand that the amnesty course, added during second half or intersession, is not subject to a retroactive drop. Students need to complete the amnesty class or petition for a retroactive withdrawal if circumstances warrant this option.

Deans and departments will work to schedule second-half courses that are appropriate for freshmen, either face-to-face or blended, that start at least one week after students return from the fall break so that academic advisors have enough time to contact the students and help get them registered.

Student Academic Support and Academic Enrichment offices will provide intentional advisement and support to all students receiving amnesty including monitoring class attendance and providing study sessions.

Students that do not meet the eligibility requirements for amnesty may withdraw from classes following the standard deadlines and add second-half or intersession classes. Payment of additional tuition and fees (e.g. for taking more than 18 credit hours) will be the responsibility of the student.

Exceptions and special circumstances to this policy must be approved by the VPAA or designee.

## **Time-frame Amnesty**

Academic amnesty will benefit undergraduate students who once attended New Mexico Highlands University but did not continue due to poor grades, which resulted in academic probation or dismissal. A student may return to Highlands University; and, once granted amnesty, his or her earlier academic record will not be used for computation of the grade point average (GPA). Academic amnesty makes it possible for a student to attain an acceptable GPA for graduation from college. Academic amnesty is not available to students who were expelled from Highlands University because of violation of the Student Code of Conduct, university regulations, or federal, state, or local laws. Students should consult with the Office of Financial Aid to determine if they will qualify for financial assistance during the academic amnesty period.

A student must meet all of the following conditions to be granted academic amnesty:

Took courses from Highlands University and then stopped matriculation for five years or more because of poor grades (GPA less than 2.0), academic probation or dismissal.

Applies for academic amnesty through the Registrar's Office. A student can apply for academic amnesty only once. A student is readmitted to Highlands University on academic probation after application for amnesty is approved.

Completes the first 24 credit hours at Highlands University with a GPA of 2.0 or better.

Once the first 24 credit hours are successfully completed, the academic amnesty is granted, and:

all course taken during the earlier matriculation at Highlands University, even courses with a C or better grade, will be excluded from GPA calculation;

Courses with a grade of C or better from the initial matriculation period can be carried forward as earned credit and used to meet degree requirements;

Courses from the earlier matriculation period remain on the student's Highlands University transcript, but the transcript will bear the statement "Academic Amnesty Granted."

A student will be academically dismissed from Highlands for failure to attain a GPA of 2.0 in the first 24 credit hours after application for academic amnesty.

## **Academic Information for Undergraduate Degrees**

## **Undergraduate Degree Requirements**

All students seeking to earn a degree must decide upon a degree objective and one or more academic specializations. At Highlands University, the academic specializations are called academic majors and minors.

Major/Minor: All degree-seeking students declare their specific academic field(s) through an official form, the major or minor form, which is to be filed with the Office of the Registrar after all required signatures are obtained. For the bachelor's degree, this procedure should be completed by the time students enter upper-division status. Students should know that timely filing of the required major and minor forms may be made a condition of registering for classes or receiving scholarships or financial assistance.

Degree Check: Required at one or two points during each student's time at Highlands University. Bachelor's degree candidates are required to have a degree check at the beginning of their third year of studies. In addition, all degree candidates should have a final degree check prior to the start of the semester in which they plan to graduate. The degree check is an official proce-

dure carried out by appointment in the Registrar's Office. The appointment may be by email, phone or in-person. Degree checks are used to identify remaining requirements for graduation and are an essential step in responsible academic planning. Students who neglect the degree-check process too often learn of unexpected requirements near the end of their studies, resulting in a delay in completing their degrees. Students should maintain constant contact with the adviser of their major to ensure completed of the program of study.

## **Overview of Course and Program Requirements**

This section conveys specific requirements for completing an academic program and qualifying for graduation. Students are responsible for knowing and following the correct procedures and for meeting the conditions established for their academic programs and progress at the university. The following summary is intended to supply a convenient overview.

For the associate degree: all course and program requirements are stated in the Academic Programs and Courses section of this catalog.

Bachelor's degree: students must look in a number of different places to know the requirements for graduation. The requirements include the following:

a. Proficiency requirements: Many students will discover they have one or more proficiency course requirements. Students and their advisers will plan how they may best meet these needs, which should be taken care of as soon as possible. Proficiency requirements are stated along with the core curriculum requirements.

b. Core curriculum requirements: During the first two years, bachelor's degree candidates typically concentrate on completing many of the courses for the university's core curriculum. The core consists of courses that give a breadth of exposure to the many important academic subjects essential to a university's education. These requirements are listed later in this section.

c. Academic major and minor requirements: Bachelor's degree candidates typically concentrate on their major and minor fields between the sophomore and senior years at the university. Each bachelor's degree candidate selects an academic major and a minor or, in place of a minor, a second major. Some professional programs do not require a minor. Courses used in satisfaction of core curriculum requirements may be used also toward an academic major or minor if so approved.

d. General graduation requirements: Bachelor's degree candidates must complete at least 120 credits with a GPA of at least 2.00 or better to earn their degrees. In addition, the university requires that at least 45 of these credits must be at the 300- or 400-level (upper-division courses). Students and their advisers should carefully monitor these requirements to avoid unintended delays in graduating.

e. Progress and performance requirements: Students must carefully monitor their grades and overall academic planning, including standards for academic performance and progress that must be met for continuation of financial assistance and athletic or academic scholarships. (These requirements are given to each student along with the financial assistance or scholarship award and are summarized elsewhere in this catalog.) The student also must be aware of academic requirements for minimum grade averages and the declaring of major and minor fields.

## **Academic Advising at NMHU**

Every student seeking to complete a degree at the university is assigned both an academic and faculty adviser. Specifically, the adviser helps with the selection of courses that each student proposes each semester and also works on the student's plans for an academic specialization.

When students decide upon or change their academic fields of study, they may be reassigned to a new adviser. Once students have declared their major, their advisers will be faculty members in the field of the major. The dean's office of the college/school supervises the assignment of advisers. Students needing help in identifying an appropriate adviser should go to the office of the appropriate academic dean.

#### First-year Experience Learning Communities (FYE LC)

NMHU understands the role of community in success. Our First-Year Experience Learning Communities support all first-year students in building supportive relationships, applying academic content to real-world situations, and having an enjoyable college experience. The program provides students with a common experience, a cohort of peers with similar interests, supportive faculty trained in best teaching practices, a Peer Mentor dedicated to helping ease the transition to college, and connections to university services.

A Learning Community (LC) is a small group of students who enroll in classes together to explore a common interest. The instructors work together to address the community theme from different perspectives and create a collaborative learning environment, helping students make connections and learn on a deeper, more meaningful level. Students will apply what they learn in the classroom to "real-world" situations through field experiences, case studies, and other "hands-on" activities. These types of learning experiences are based on what research shows about how we learn best. Students will also compete in Peer Mentor led academic and non-academic activities throughout the semester as part of the "First-Year Competitions." At semester's end, students will have the opportunity to showcase their integrative LC work in a Celebration of Learning event.

The typical LC connects three courses together. One course is Integrative Seminar (iSeminar), which connects the other two courses and provides a community space for problem solving. The other two courses are in the core or a major/minor, including any associated labs. Each LC is part of a "Highlands Hacienda," a group of 5-6 LCs with a common iSeminar time.

At Highlands, we pride ourselves on providing quality education, which includes engaging programs focused on student success through community building and experiential learning. We've adapted our FYE LC program based on research conducted at institutions across the nation. Our data shows improvements in GPA and scholarship qualification for our fall 2015 FYE students. All first-year students participate in FYE.

Integrative Seminar (1-credit) encourages students to envision themselves as professionals and to reflect on their own development as they move toward their life goals. Seminar activities are designed to be collaborative, active-learning activities and are aimed at providing a rich environment for students to make multiple connections -- i.e., among their other courses, between course content and application in the real world, and between their own needs and goals and the demands and expectations of their courses and chosen fields. Such activities may include student reflective work, problem-based learning activities, and case studies; the seminar may also arrange off-campus visits to relevant sites and incorporate presentations by professionals in relevant fields.

## University Proficiency, CORE, Extended CORE Requirements, and New Mexico Common Course Number (NMCCN)

## **Proficiency Course Requirements**

## English proficiency is demonstrated by:

Visit Placement Scores link: www.nmhu.edu/academicplacement

ENGL 106 Reading & Writing for Inquiry (3)

# Language proficiency is demonstrated by proficiency assessment or two semesters of a language other than English.

## Computer proficiency is demonstrated by:

Proficiency assessment OR one of the following:

CS 101 Living with Computers (3)

CS 144 Intro to Computer Science (3) (CS, Math and Science majors)

CS 145 Object-Oriented Programming (3) (CS, Math and Science majors)

MIS 145 Microcomputer Applications in Business (3)

#### Mathematics proficiency is demonstrated by:

Visit Placement Scores link: www.nmhu.edu/academicplacement

MATH 120 Intermediate Algebra (3)

A student with an ACT score of 29 in English or mathematics will be awarded three credits respectively.

## The Core Curriculum

## Area I: Communications (9 hours):

ENGL 111 Freshman Composition 1 (3), ENGL 1113

OR ACT of 29

ENGL 112 Freshman Composition 2 (3), ENGL 1123

SPCH 124 Beginning Speech (3), COMM 113

## Area II: Mathematics (3 hours):

MATH 130 Math for Elementary Teachers 2 (3); Approved for Education Majors only

MATH 145 Introduction to Statistics (3), MATH 2113

MATH 140 College Algebra (3), MATH 1113

OR ACT of 29

MATH 155 Applied Calculus 1 (3)

MATH 160 Precalculus (5)

MATH 211 Calculus 1 (4), MATH 1613

#### Area III: Lab Science (8 hours):

Choose two 100-level lab science courses, selecting not more than one from each discipline:

BIOL 110 Biological Perspectives (4), BIOL 1114

BIOL 131 Human Biology (4)

BIOL 211 General Biology 1 (4), BIOL 1214

BIOL 212 General Biology 2 (4), BIOL 1224

CHEM 100 Chemistry for the Non-Science (4), CHEM 1114

CHEM 211/215 General Chemistry 1/Lab (5), CHEM 1214

CHEM 212/216 General Chemistry 2/Lab (5), CHEM 1224

FOR 105 Humans & Ecosystems (4)

GEOL 101 Survey of Earth Science (4), GEOL 1214

GEOL 105 The Planets (4)

PHYS 105 Elementary Physics (4), GEOL 1214

PHYS 110 Survey & Astronomy (4)

PHYS 151 Algebra Physics 1 (4), PHYS 1114

PHYS 152 Algebra Physics 2 (4), PHYS 1124

PHYS 291 Calculus Physics 1 (5), PHYS 1214

PHYS 292 Calculus Physics 2 (5), PHYS 1224

## Area IV: Social and Behavioral Sciences (6 - 9 hours):\*

Choose two to three courses selecting not more than one from each discipline:

ANTH 102 Introduction to Sociocultural Anthropology (3), ANTH

ANTH 103 Introduction to Physical Anthropology & Archaeology (3), ANTH 1113

ECON 216 Principles of Macroeconomics (3), ECON 2113

ECON 217 Principles of Microeconomics (3), ECON 2123

POLS 151 American National Government (3), POLS 1123

PSY 101 Psychology & Society (3), PSYC 1113

SOC 152 Introduction to Sociology (3), SOCI 1113

## Area V: Humanities and Fine Arts (6 -9 Hours):\*

Select three to six hours from humanities.

HIST 100 The Western World (3), HIST 100

HIST 201 U.S. History to 1865 (3), HIST 1113

HIST 202 U.S. History from 1865 (3), HIST 1123

PHIL 100 Introduction to Philosophy (3), PHIL 1113

Select three to six hours from fine arts.

ART 100 Introduction to Art (3), ART 1013

AH 210 Art History 1 (3)

AH 211 Art History 2 (3)

AH 240 Modern Art (3)

AH 280 Art of the Americas (3)

MART 261 History of Motion Pictures (3)

MUS 100 Introduction to Music (3), MUS 1013

MUS 101 Rudiments of Music (3), MUS 1213

MUS 311 Western Art Music to 1750 (3)

MUS 312 Western Art Music since 1750 (3)

THEA 100 Introduction to Theater (3), THRT 1013

\* Areas IV and V: The total number of credits must be a minimum of 15

Extended Core Requirements (5 hours):

PE 100 Fit for Life (2)

OR Physical Education (2)

This requirement is waived for eligible athletes. Athletes must still meet the 120-unit minimum degree requirement for graduation.

Literature – Choose three credits in literature offered by English or languages.

## **New Mexico Common Core Numbers (NMCCN)**

The course prefix and number that appear on the right-hand side next to the NMHU course number is the New Mexico common course number. This is a four alpha – four numeric set of uniform course designations serving as a single reference point for courses sharing substantially equivalent content taught throughout the state. Courses bearing this designation are part of a statewide equivalency table that cross-references the institutional course and number with a universal common course number creating an easy one-to-one match.

Students can find the New Mexico common course number listed in degree outlines, transfer guides, and in course descriptions in college catalogs and websites. Simply put, the common course number connects equivalent courses at multiple institutions assuring students that the course will transfer to the receiving institution and meet degree requirements as if it were taken on that campus.

## Degree Completion (effective summer 2016)

Students who are transferring with an earned associate of arts (AA) or associate of science (AS) degree from a regionally accredited institution of higher education will have New Mexico Highlands University proficiency, extended core, state core, and minor requirements waived. Education majors have special requirements that may preclude waiver of some university requirements. Please consult the appropriate section of the catalog.

An associate of applied science (AAS) degree waives university proficiency and extended core requirements but does not waive the state-mandated core or university minor requirements.

All other university requirements, including the university's state-mandated 35-hour common core, program, residency, and the 45 upper-division credit requirements must be met before granting of the baccalaureate degree.

An individual transfer analysis will be given to the student by the admissions and registrar's offices to determine courses required for completing the university's general education requirements. Major and minor program requirements will be reviewed by officials in the appropriate academic department. Students must complete all courses required by Highlands University and meet the university's requirements for academic performance to receive the indicated degree.

# **Transfer Among New Mexico Higher Education Institutions**

To facilitate transfer of students and course credits among New Mexico's colleges and universities, the state's public institutions of higher education are required to accept transfer courses taken within approved modules of low-

er-division coursework and apply them toward degree requirements.

Several transfer guides have been developed through collaboration of New Mexico's public postsecondary institutions, consistent with requirements of state law (21-1B, NMSA 1978). Students enrolling for first-year or second-year study at a New Mexico institution and wishing to prepare for possible transfer into a degree program at another institution are advised to take these courses during their freshman and sophomore years. <a href="http://www.hed.state.nm.us/institutions/general-ed-core-course-transfer-curriculum.aspx">http://www.hed.state.nm.us/institutions/general-ed-core-course-transfer-curriculum.aspx</a>

#### **Transfer of Credits**

New Mexico Highlands University accepts academic credits for transfer from institutions of higher education that are regionally accredited or are candidates for regional accreditation. Transfer students will receive full credit for coursework completed with an appropriate grade, provided the classes are appropriate to a degree at the university. Transfer course grades will not be calculated as part of Highlands University grade point average and are listed on the academic transcripts with a grade of CR. (However, for graduation, all transfer credits graded are included in the final computations for honors.) Highlands University does not award transfer credit for vocational, technical, or remedial courses and credits awarded for work or life experience. Students transferring from an accredited institution of higher education may transfer under one of the following plans:

#### **Course by Course**

The course-by-course plan is for students who do not plan to complete an associate degree. The Course Articulation Matrix compiled by the Higher Education Department and transfer guides in place with New Mexico two-year colleges serve as a guide for this purpose and apply to General Education requirements only.

## **Transfer Student Responsibility**

New Mexico's colleges and universities have collaborated to produce guides to assist students who plan to transfer before completing a program of study. Course modules are designed to help students prudently select courses so they can transfer with little or no loss of credit. However, planning for effective transfer with maximum efficiency is ultimately the student's responsibility. Responsible transfer planning includes early and regular consultation with the intended degree-granting institution to ensure all pre-transfer coursework will meet the requirements of the desired degree.

# Transferring Courses to Fulfill the New Mexico General Education Common Core

In accordance with policies established by the New Mexico Higher Education Department, designated general education core courses successfully completed at any regionally accredited public institution of higher education in New Mexico are guaranteed to transfer to any New Mexico public institution. Students who have decided on a major and/or an institution to complete their studies should consult with an academic adviser at that particular institution to determine the most appropriate course selections. Students enrolling for the first-year of study at a New Mexico college or university and considering possible transfer into a certificate and/or degree program at another institution are encouraged to take the courses approved for transfer during their freshman and sophomore years of study.

The core matrix of approved courses guaranteed to transfer and meet general education requirements at any New Mexico college or university can be found on the New Mexico Higher Education Department website at www. hed.state.nm.us/institutions/general-ed-core-course-transfer-curriculum. aspx. Courses in the state core matrix are listed by institution under each of the five general education areas.

The following are the approved courses for New Mexico Highlands, with their equivalent New Mexico common course number:

## **Lower-Division 64-Hour Transfer Modules**

Students who have selected a field of study but have not yet selected the college or university where they wish to earn their baccalaureate degree are

advised to take courses during their freshman and sophomore years outlined in one of the lower-division 64-hour transfer modules. For students enrolled at any public institution in New Mexico, these courses are guaranteed to transfer to any New Mexico university and apply toward bachelor's degree program requirements. Students should consult advisers at their current institutions regarding which specific classes fit these categories. Lower-division transfer modules presently exist for:

- Business
- Teacher education
- Early childhood education

Modules for additional areas of study are being developed.

#### Inter-institutional Transfer Guides and Catalogs

Students who have selected a field of study and/or the institution where they wish to graduate are advised to consult the transfer guide or catalog for that institution for current and detailed advice to guide their course selection. Transfer guides between most New Mexico Community Colleges and Highlands University are available through the Office of the Registrar.

#### **Articulation Agreements**

In an ongoing effort to support our transfer students, Highlands University has established articulation agreements and memoranda of understanding with a number of in and out-of-state universities and community colleges. The agreements list the acceptable courses that will transfer and fulfill specific program requirements. <a href="http://www.nmhu.edu/office-of-the-registrar/articulationandtransferagreements/">http://www.nmhu.edu/office-of-the-registrar/articulationandtransferagreements/</a>

## **Complaint Procedure for Transfer Students**

All New Mexico public postsecondary institutions are required to establish policies and practices for receiving and resolving complaints from students or other complainants regarding the transfer of coursework from other public institutions in the state. A copy of New Mexico Highlands University's complaint policy may be obtained from the Admission Office or from the New Mexico Higher Education Department at 1068 Cerrillos Road, Santa Fe, NM 87501-4295, 505.476.8404 or <a href="http://hed.state.nm.us">http://hed.state.nm.us</a>,

#### **Military Credit**

The university grants credit for military education or service schools on the recommendation of the American Council on Education's Publication Guide to Evaluation of Educational Experience in the Armed Services. A DD214, DD295, or official military transcript form is required to consider credit for military service. Veterans must request their transcripts online by registering for a Joint Services Transcript (JST) account at <a href="https://jst.doded.mil/smart/registration.do">https://jst.doded.mil/smart/registration.do</a> Air Force veterans are required to provide an academic transcript from the Community College of the Air Force.

#### **Training Credit**

Credit for non-collegiate training programs is granted based on recommendation of the American Council of Education's National Guide to Educational Credit for Training Programs and institutional policies. Official records must be provided to the university.

## **Advanced Credit Programs**

Highlands University offers a number of advanced credit options to earn course credit prior to becoming a freshman at NMHU.

## Credit for College Board Advanced Placement and CLEP Examinations

Advanced Placement (AP) is a program that offers year-long college-level curricula and examinations to high school students. College Level Examination Program (CLEP) is a group of standardized tests that assess college-level knowledge in thirty-six subject areas and provide a mechanism for earning college credits without taking college courses. Both AP and CLEP programs are administered through the College Board.

Highlands University recognizes student academic accomplishments gives equivalent NMHU credits based on scores achieved on AP and CLEP ex-

ams. Please refer to the following link for complete details on AP and CLEP exams in different content areas and the awarded NMHU credit equivalents: <a href="https://www.nmhu.edu/academicplacement">www.nmhu.edu/academicplacement</a>.

#### **ACT/SAT Test Score Placement**

It is recommended that students take the American College Test (ACT) or Scholastic Aptitude Test (SAT) prior to enrolling for classes at Highlands University. Submission of test scores at the time of application is highly recommended. Students who do not submit ACT or SAT scores will be required to take the Accuplacer placement exam prior to enrollment.

Students are placed in the appropriate NMHU English and Math courses based on ACT, SAT, or Accuplacer performance. In some disciplines, exceptional performance ACT and SAT exams can also lead to credit in other courses. Please refer to the following link for complete details: <a href="https://www.nmhu.edu/academicplacement">www.nmhu.edu/academicplacement</a>

NOTE: Credits automatically apply toward elective credits for graduation. Whether they may be applied toward general education requirements or in degree programs is subject to limitations established by the appropriate disciplines.

## Minimum associate degree requirements

Fulfillment of the general requirements for graduation; total credits required: at least 64 degree credit hours; minimum cumulative grade point average: 2.0; fulfillment of the discipline requirements for graduation; specific requirements for admission, proficiency, and courses as stated in subsequent sections of this catalog, listed under the school and discipline that offers the specific associate's degree sought. C or better grades are required in all courses listed as major requirements for the degree.

## Minimum bachelor's degree requirements

Fulfillment of common degree requirements (both curricula); completion of the university's general education requirement (includes proficiency-course requirements, if required, and core-curriculum course requirements). See the core curriculum; a total of at least 45 credits in courses numbered 300 or 400 level; a cumulative grade point average of at least 2.0. No credits below "C" may be counted toward a major or minor; C or better grades may be required for support courses in some majors and minors; at least 120 total degree credit hours required for graduation. Requirements for the bachelor of arts curriculum one major of at least 30 credits; one minor of at least 20 credits, or a second major, or a two-year degree.

# Minimum degree requirements for the Bachelor of Science curriculum

One major of at least 30 credits selected from the list of approved Bachelor of Science (B.S.) degree major programs; one minor of at least 20 credits in one of the fields of science other than the field of the major, or a combined science minor, or a second major in a B.S.-degree field other than the field of the first major, or a two-year degree in a science field; at least eight credits in mathematics, including Math 155, Applied Calculus I or Math 211, Calculus I.

## Requirements for a second bachelor's degree

A student who has a bachelor's degree is encouraged to consider pursuing a graduate-level degree. However, changes in a student's academic objectives or other circumstances may make a second bachelor's degree desirable. A student who has completed an undergraduate degree and seeks a second bachelor's degree must meet all requirements for that degree. To obtain a second undergraduate degree, a student must: must complete a minimum of 32 additional semester hours of credit in residence at Highlands University following the completion of the first degree; meet all requirements of the major for the second degree; upper division coursework from the first degree may not be used for completion of the second degree or to satisfy any requirement of the second degree. Students are advised that pursuing a second bachelor's degree may have financial aid implications. Please consult with the Financial Aid Office before pursuing a second degree at the baccalaureate level.

## **Pre-Professional Programs**

Students can attend Highlands University to prepare for further studies at medical, dental, engineering, law, and other professional schools. The university offers pre-professional training in accordance with standards and requirements established by national professional associations for entrance into each profession.

The competition for entrance into professional schools is intense. Students are accepted who show promise of success in the profession (as indicated by aptitude and standard admission tests), who have demonstrated high achievement in academic performance, and who have completed the appropriate pre-professional work in colleges or universities.

Many pre-professional opportunities are offered at New Mexico Highlands University. Programs, such as the pre-law program, entail the satisfactory completion of an undergraduate degree, because the professional schools in these fields require a four-year degree as one condition for admission. For other programs such as pharmacy, students often begin professional studies after only one or two years of undergraduate pre-professional studies. Professional schools, including medical and dental, will admit students with exceptional qualifications before completion of a bachelor's degree. However, they are more likely to consider an applicant who has already earned a four-year degree.

In developing the appropriate pre-professional course of study, it is advisable for students to become familiar with the specific entrance requirements of the professional school or schools to which they are interested in applying.

Pre-professional advisers at Highlands University are available to assist students in developing their professional plans. Interested students may contact the appropriate pre-professional adviser as soon as possible.

Students interested in pre-professional opportunities may consult the information available in other sections of this catalog. The pre-law option is described in the political science discipline in the history and political science department.

Pre-professional options in health and science professions are described among the program descriptions of the Department of Biology in the College of Arts and Sciences.

All of the degree programs offered at Highlands University prepare students to enter their chosen fields or to pursue studies toward an advanced degree and are designed to meet professional standards for their fields.

In addition, a number of degree programs are aimed specifically at preparing students for entrance into professions that require candidates to obtain a license or certificate after completing their required university studies, such as in education and social work. The program descriptions in other sections of the catalog give more detailed information about these options.

## **Second Majors**

Students who complete a second major in a different degree will have that degree posted on the transcript (e.g., B.S.in Forestry and B.A. in Spanish). Note that the second major, in order for a degree to be posted separately on the transcript, must be in a field and degree other than the field/degree of the first major, or a two-year degree in that major (as in the example above). Students must complete all the requirements of the second major; courses may not be counted twice between the majors.

Please be advised that pursuing a second major does not increase the financial aid maximum time frame. Please consult the Financial Aid Office for questions regarding financial eligibility and a second major.

## **General Graduation Policies**

#### **Catalog Changes**

Undergraduate students may graduate under the catalog requirements for the year in which they were enrolled for the first time in a degree-seeking program. Students are responsible for knowing the rules and regulations concerning graduation requirements and for registering in the courses necessary to meet them. However, this catalog is neither a contract nor an offer to contract be-

tween New Mexico Highlands University, and any person or party. Highlands University reserves the right to make additions, deletions and modifications to curricula, course descriptions, degree requirements, academic policies, schedules, academic calendars, financial aid policies, and tuition/fees without notice. All changes take precedence over catalog statements.

While reasonable effort will be made to publicize changes, students are advised to seek current information from appropriate offices. It is the student's responsibility to know and observe all applicable regulations and procedures. No regulation will be waived or exception granted because students plead ignorance of, or contend they were not informed of, the regulations or procedures. Questions on regulations and their interpretation should be addressed to the office or college/school in which the student's major department is located.

Highlands University reserves the right to effect changes without notice or obligation including the right to discontinue or modify a course or group of courses or a degree program. Although Highlands University attempts to accommodate the course requests of students, course offerings may be limited by financial, space and staffing considerations, or might be otherwise unavailable. Likewise, there may be changes to a student's original course of study. Every effort is made by Highlands University to inform students of changes to their matriculated degree and to provide appropriate courses to fulfill degree requirements. Students should regularly consult with their department adviser to register for courses necessary to meet graduation requirements.

#### **Baccalaureate Graduation Honors**

Graduation honors for undergraduate students are based on the quality of a student's work during their residency at Highlands University. Coursework from any accredited university previously attended will not be included in the computation of graduation honors.

To be eligible for graduation honors, a student must have been enrolled at Highlands University for at least 30 semester hours. The grade point average determines the honors award for summa cum laude a GPA of 3.86 or above, magna cum laude a GPA of 3.70 through 3.85, and cum laude a GPA of 3.50 through 3.69.

Appropriate recognition is given at the commencement exercises and on the transcript and diploma.

#### Graduation

Students must apply for and submit their application for graduation through the Office of the Registrar a semester prior to the anticipation graduation date (example, if planning on graduating in Spring, apply in Fall). A one-time, nonrefundable graduation fee is charged for each degree. Graduation is subject to completion of all requirements, and students are reminded of the importance of working with their academic advisor to ensure all program and graduation requirements have been met prior to submitting a final degree check. For more information, contact the Office of the Registrar at 505.454.3436 or registrar@nmhu.edu.

#### Commencement

New Mexico Highlands University holds commencement ceremonies each May. Students completing their program at the Las Vegas campus will participate with the commencement at main campus. Student completing their program at the Albuquerque or Rio Rancho Centers will participate with the commencement through the Rio Rancho Center. Students completing their program at the Farmington Center will participate in a joint commencement with San Juan Community College. Students completing their program at the Santa Fe Center have the choice of participating in either the Las Vegas campus or Rio Rancho Center commencement. Social Work students taking classes in Roswell may take part in the Rio Rancho/ABQ commencement or in a joint commencement with Eastern New Mexico University-Roswell. To participate in the commencement ceremony, a student must be eligible to complete all degree requirements at the end of the spring semester or within 9 credits for the summer term. To be included in the Commencement program, students need to have completed their final degree check and applied for graduation during the fall semester prior to their final semester. For more information, see www.nmhu.edu/commencement

#### Posting of the Degree

The degree earned will be recorded on the student's transcript at the end of the semester when all degree requirements have been completed. Diplomas are mailed to the address listed on the degree application as degrees are awarded.

## **Graduation Residency Requirement**

To be eligible for graduation under any curriculum or with any degree, students must be students "in residence" for one full academic year (at least 30 semester credits), including the final semester (at least 15 credits). "In residence" means enrolled in courses by any delivery method through Highlands University.

# Undergraduate Academic Programs and Courses Academic Programs and Courses

The undergraduate academic program at Highlands University is administered through the one college and three schools. Students and any others who need assistance or information about academic programs should contact the office of the dean of the appropriate academic unit. In this section of the catalog, the academic program is presented by discipline within each college/school. Program descriptions and instructional requirements are given for each discipline, and courses are listed alphabetically by discipline unit.

## **Symbols and Abbreviations in Course Listings**

Courses are listed by course number followed by course title.

The number in parentheses following the title indicates the number of credits for that course. When a range of credits is offered, the specific number of credits within that range is determined either when the course is scheduled or, for variable-credit courses (identified as "VC"), when each student selects an individually approved number of credits.

When there are numerals following the number of credits, it indicates a number of contact hours per week different from the number of credit hours. In this example, BIOL 211 General Biology 1 (4); 3, 2, the first number indicates lecture contact hours, and the second number indicates lab or studio contact hours. Their sum equals the total contact time. The total contact time may exceed the course credit hours. When no numerals follow the number of credits, the course's contact hours per week match the number of course credit hours (with one hour comprising 50 minutes of meeting time). Any specific prerequisites or co-requisites are stated at the end of the course description. These are enforced by academic program advisers and by the faculty member teaching the course in question. In cases where specific course prerequisites are not stated, assumption of ability to perform at the appropriate level in that discipline is still made.

## **Financial Aid and Scholarships**

## Office of Financial Aid and Scholarships

Felix Martinez Building, Suite 240 505-454-3318 or toll free 800-379-4038

Email: financialaid@nmhu.edu

As part of our mission, New Mexico Highlands University is committed to ensuring that no student will be denied the opportunity for a postsecondary education because of limited resources. To meet this goal, the New Mexico Highlands University Office of Financial Aid and Scholarships offers a broad spectrum of academic merit scholarships, grants, work-study jobs, and loans to supplement the resources of eligible students who attend Highlands University. We provide Highlands University students with the timely delivery of financial assistance while maintaining accountability and proper stewardship of the public, institutional, and private funds with which it is entrusted. We are committed to providing courteous service to support the academic mission and goals of the University and its students.

Financial aid at Highlands University is divided into three categories:

- Grant aid (applicable towards first degree only)
- Self-help aid (employment and loans)
- Scholarships (merit and need based)

## The Financial Aid Package

The Office of Financial Aid and Scholarships awards financial aid according to individual need and eligibility criteria. If a student is a dependent, parents are expected to contribute toward educational costs according to their financial ability. In addition, students are expected to contribute from their own assets and earnings, including borrowing against future income. Financial need is the difference between the cost of attendance at Highlands University (including living expenses) and the expected family contribution (EFC). The aid package cannot exceed financial need or cost of attendance.

## To apply for financial aid:

Complete all sections of the Free Application for Federal Student Aid (FAF-SA) online <a href="https://fafsa.ed.gov/">https://fafsa.ed.gov/</a>.

For priority consideration, applications should be received by March 1. The Highlands University school code is 002653. All supporting documentation must be received by April 15.

If transferring into Highlands University during the current academic year, the applicant will also need to access the FAFSA online at <a href="https://fafsa.ed.gov/">https://fafsa.ed.gov/</a> and add NMHU (002653) to the list of schools. It is the applicant's responsibility to ensure that the financial aid file is complete. The Office of Financial Aid and Scholarships cannot make a financial aid award if a file is incomplete or if a student is not admitted into a degree seeking program or eligible Title IV program. Web access is available to students 24 hours a day seven days a week at <a href="www.nmhu.edu">www.nmhu.edu</a>; click on "MY NMHU" and enter secure area to obtain financial aid status.

Once a student's processed FAFSA is received, the Office of Financial Aid and Scholarships will determine if and for how much financial aid an applicant is eligible. The aid awarded is based on the cost of attending Highlands University, including tuition and fees, room and board, books and supplies, transportation, and personal expenses. Dependent care expenses may be considered once the applicant provides the appropriate documentation. Students may also request budget adjustments for the purchase of a personal computer or other unusual educational related expenses. See a financial aid adviser for more information.

To qualify for financial aid at Highlands University, an applicant must:

- Demonstrate financial need as determined through a processed FAFSA.
- Be a U.S. citizen or an eligible noncitizen.
- Maintain satisfactory academic progress (see standards below).

- Be enrolled in a regular degree program (Title IV eligible) at Highlands University.
- Be enrolled at least half time (six credit hours) for all aid programs (with the exception of federal Pell Grant, in certain situations).
- Not be in default on a federal student loan or owe a repayment on a federal grant.

Students may use their financial aid awards to defer tuition at the Highlands University Business Office/ Student Accounts once classes are charged to their account and before the awards are disbursed. A student's award is subject to change if the student becomes ineligible as a result of over-award or failure to maintain academic progress. Students are required to notify the financial aid office if they are receiving aid from ANY other source.

#### **Verification Policy**

A student may be required to verify the accuracy of his or her FAFSA. Highlands University verifies between 30 and 50 percent of all financial aid applications. All students who are selected by the Department of Education's central processing servicer for verification must submit the appropriate documents requested by the Office of Financial Aid and Scholarships before the application for aid can be processed. All required documentation must be received by April 15 for priority consideration or no later than three weeks before the end of the semester for which financial aid is requested.

#### **Satisfactory Academic Progress**

Federal Title IV program regulations require participating institutions to develop procedures to monitor a student's progress toward completion of their program of study. The following is a summary of the criteria used by the Office of Financial Aid and Scholarships to monitor progress:

## **GPA Requirement for Undergraduate Students**

If a minimum GPA as stated below is not met, the result is financial aid ineligibility (warning/ suspension):

1 – 29 attempted hours = 1.75 cumulative GPA

Above 30 attempted hours = 2.0 cumulative GPA

#### **GPA Requirement for Graduate Students**

If a minimum cumulative GPA of 3.0 is not met, the result is financial aid ineligibility (warning/ suspension).

## Pace of Progression (Formerly Completion Rate) for Undergraduate Students

To determine the pace of progression, divide the hours completed by hours attempted. Less than the percentage indicated below results in financial aid ineligibility (warning/ suspension):

1 - 29 attempted hours = 65%

30 - 59 attempted hours = 70%

60 – 89 attempted hours 75%

90 or more attempted hours = 80%

Note: Hours attempted includes all credit hours attempted and completed as well as unsatisfactory grades for example: F, W, U, I, NG, NP, and R.

## **Maximum Time Frame for Undergraduate Students**

Once the maximum hours have been reached, the result is financial aid ineligibility (warning/ suspension). Students who have reached 125 percent of their degree requirement will be placed on a warning status. Students must appeal this status and provide the Office of Financial Aid and Scholarships with a current degree check:

5-year program (must be identified in the catalog as such) = 160 hours x 150% = 240 hours

4-year program = 120 hours x 150% = 180 hours

Associate degree = 64 hours x 150% = 96 hours

Once it is determined that a student cannot obtain their degree within the

150% maximum time frame, financial aid may be denied.

Pace of Progression (Formerly Completion Rate) for Graduate Students

To determine the pace of progression, divide the hours completed by hours attempted. Less than the percentage indicated below results in financial aid ineligibility (warning/ suspension).

Graduate students must always maintain an 80 percent pace of progression.

Note: Hours attempted includes all credit hours attempted and completed as well as unsatisfactory grades for example: F, W, U, I, NG,NP, and R.

#### **Notification and Appeal Process**

Students whose GPA and/or credit hours fall below the minimum standards indicated above will be notified at the end of the semester. When notified of financial aid warning/ suspension, the student may file a written appeal with the Office of Financial Aid and Scholarships. Appeal forms are provided in the letters and are available on our website at <a href="http://its.nmhu.edu/www/onlinedocs/index.html">http://its.nmhu.edu/www/onlinedocs/index.html</a>. The student may be given a probationary semester with financial aid to make up deficiencies in GPA and/or credit hours and meet the minimum standards. If at the end of the probationary semester the student still does not meet the minimum requirements, the student will lose his or her financial aid and must make up the deficiencies to regain financial aid eligibility. By federal regulation, a student CAN NOT be on suspension two consecutive semesters. A student who continues coursework at Highlands University is personally responsible for tuition and fee charges with no assistance from federal aid programs and must meet the minimum standards as established in the Satisfactory Academic Progress Standards.

## **Enrollment Requirements for Financial Aid**

Undergraduate students must be enrolled for a minimum of 12 credits each semester to be eligible for full financial aid: 9-11 hours is considered 3/4 time and 6-8 hours is considered 1/2 time.

The summer course load requirements for financial aid is a minimum of six credits hours.

Note: Audit and some repeat courses are not eligible for financial aid.

To avoid loss of financial aid, please refer to the section on Tuition, Fees And Financial Policies in this catalog before dropping or withdrawing from classes or contact the Office of Financial Aid at 505-454-3318 or via email at <a href="mailto:financialaid@nmhu.edu">financialaid@nmhu.edu</a> for additional questions.

#### **Summer Financial Aid**

Effective summer 2013, summer financial aid will be awarded based on the "trailer" system, which means Highlands University will base eligibility on the prior year FAFSA; i.e., 2012-13 FAFSA will be used for summer 2013 financial aid package. A student who chooses to enroll in the summer term is advised to notify the Financial Aid office of intent to enroll. It is also advised that students conserve their loan borrowing to allow reserve for the summer.

## Financial Aid Return of Title IV Funds for Official/Unofficial Withdrawals

The federal return of Title IV policy will be used to calculate the portion of federal financial aid a student is ineligible for and must repay/return to the Department of Education should the student withdraw completely from school (officially or unofficially). This applies to students receiving Federal Direct Stafford Unsubsidized Loan; Federal Direct Stafford Subsidized Loan; Federal Perkins Loan; Graduate PLUS loan; Federal Pell Grant; Federal SEOG; Federal TEACH Grant and/or other Title IV program assistance.

For more information, contact the Financial Aid Office at 505.454.3318 or 800-379-4038.

## New Mexico Highlands University Undergraduate Scholarship Programs

The Highlands University scholarship program was established to recognize and reward outstanding achievements by entering freshmen, transfer and continuing undergraduate and graduate students. A grade point average of at least 3.0 on a 4.0 scale is required to compete for a number of our academic-based scholarships. Some scholarships are renewable from one to four

years, depending on the academic level at which the student enters Highlands University and the conditions applicable to the individual scholarship. Requirements for full-time status vary for scholarship recipients, but frequently exceed the 12-credit minimum. To apply or obtain information, contact the Office of Financial Aid and Scholarships or log on to <a href="http://www.nmhu.edu/financial-aid/scholarships/">http://www.nmhu.edu/financial-aid/scholarships/</a>. If the applicant is transferring from another college to attend Highlands University and is a New Mexico Legislative Lottery recipient, a New Mexico Scholarship Transfer Transcript form from all former college(s) should be sent to the NMHU Office of Financial Aid and Scholarships, Box 9000, Las Vegas, NM 87701. The university also awards performing art scholarships through the Department of Communication and Fine Arts. To apply, contact the Department of Communication and Fine Arts. To receive consideration for Highlands University scholarships, the student must be admitted by the following priority deadline dates:

Freshman Scholarships with the March 1 priority deadline are:

- Presidential Gold
- Presidential Silver
- Ken and Sue Crimmin (scholarship application required)
- Leveo Sanchez
- Victoria D. De Sanchez
- Regents' NM Scholars
- Dean's Scholarship
- Freshman Success Scholarship
- College Incentive Grant
- New Mexico Success Scholarship
- New Mexico Opportunity Grant

## **Continuing and Transfer Scholarships**

Continuing and transfer students must submit a scholarship application obtainable through the Highlands University website by the May 1 priority deadline date. Transfer students must be admitted in degree status by the priority deadline and have a minimum 3.0 cumulative grade point average. Requirements for full-time status vary for scholarship recipients, but frequently exceed the 12-credit minimum.

- Presidential Scholarship/Presidential Transfer Scholarship
- Phi Theta Kappa Scholarship
- General Motors Scholarship
- Legislative Endowment Scholarship
- •Dean's Transfer Scholarship

#### **Summer Sessions**

Scholarship awards are for the regular academic year fall/spring only and may not be used for the summer session.

## Scholarship Cancellation and Reinstatement

The time period for which a scholarship is in effect is fixed. If the scholarship is cancelled due to academic ineligibility, the original specified time period is not extended. Students who are placed on suspension may appeal for consideration for renewal of the scholarship, with the exception of the qualifying semester for the New Mexico Legislative Lottery Scholarship. A written request must be submitted to the Office of Financial Aid and Scholarship within 10 days after receiving the suspension letter or email. New Mexico Highlands University scholarship restriction: If a student inadvertently receives an offer/award of a second tuition scholarship, the student may only accept and receive one. The student must notify the Office of Financial Aid and Scholarship indicating which scholarship he/she wishes to receive (for student receiving the NM Legislative Lottery scholarship, this will always be the default unless otherwise specified). If notification is not received, the Office of Financial Aid and Scholarships will determine which scholarship is beneficial to the student and cancel the second scholarship. Scholarship recipients who receive a dependent tuition waiver are ineligible for the tuition

portion of any scholarship award.

#### Code of Conduct

To ensure the highest ethical standards, the U.S. Department of Education requires a Student Loan Code of Conduct be maintained and published by all financial aid offices.

## **Highlands University will not:**

- Accept payment from any outside entity in exchange for loan referrals or preferential treatment.
- Accept gifts from an outside entity for loan referrals (a gift is defined as
  any gratuity, favor, discount, entertainment, hospitality, loan, or other
  item having monetary value of more than a de minimis amount). A
  gift is NOT a brochure used for default aversion or financial literacy;
  food, training or informational material provided as part of training to
  improve services; entrance or exit counseling assistance that does not
  promote a lender; philanthropic contributions unrelated to loans; or
  state education grants or scholarships.
- Accept consulting fees or other contractual financial benefit from a provider of student loans.
- Intentionally delay certification of loans from any lender or automatically assign students to a particular lender.
- Accept services or staffing assistance from any outside entity in exchange for referrals or preferential treatment.
- Accept compensation in exchange for appointments to advisory boards or committees of any entity involved in the processing of alternative student loans.
- Accept a pool of funds from a lender to establish a university loan in exchange for federal loan referrals.

#### **Other Assistance Programs and Benefits**

## **Bureau of Indian Affairs (BIA)**

## www.bia.gov/

Each year, the BIA provides grants to assist eligible Native American students in meeting their education costs. The amounts of the grants vary according to the student's financial need. The funds are available through the student's BIA area office or tribal scholarship office. Check with the tribal agency to ascertain program requirements and deadlines for application.

## **Enrollment Certifications for Loan Deferments**

www.nmhu.edu/office-of-the-registrar/

Students are usually required to process an enrollment certification to defer payments on an outstanding student loan. The Office of the Registrar certifies enrollment verification forms after classes begin. For more information, contact the Office of the Registrar, 505.454.3233.

## **American Indian Residency**

All enrolled out-of-state members of an American Indian nation, tribe and/or pueblo shall be eligible for in-state tuition rates. Please submit a copy of your Certificate of Indian Blood (CIB) to Admissions via email at <a href="mailto:admissions@nmhu.edu">admissions@nmhu.edu</a>. For specific questions, please contact the Admissions Office at 505.454.3394 or admissions@nmhu.edu.

Native American students from all 22 New Mexico tribes have access to 69 full-tuition scholarships per year are part of a Memorandum of Understanding between Highlands and New Mexico's tribal leaders that was celebrated Sept. 27. The MOU continues through 2020.

# National Council for State Authorization Reciprocity Agreements NC-SARA http://nc-sara.org

The State Authorization Reciprocity Agreement is a voluntary agreement among its member states and U.S. territories that establishes comparable national standards for interstate offering of postsecondary distance-education courses and programs. It is intended to make it easier for students to take

online courses offered by postsecondary institutions based in another state.

The State Authorization Reciprocity Agreement (SARA) establishes a state-level reciprocity process that will support the nation in its efforts to increase the educational attainment of its people by making state authorization:

- more efficient, effective, and uniform in regard to necessary and reasonable standards of practice that could span states;
- more effective in dealing with quality and integrity issues that have arisen in some online/ distance education offerings; and
- less costly for states and institutions and, thereby, the students they serve.

#### **Nonresident Tuition Waiver for Colorado Students**

www.nmhu.edu/office-of-the-registrar/

A reciprocity agreement between Colorado and New Mexico allows Highlands University to grant a waiver of the nonresident portion of tuition charges to a limited number of students from Colorado. Each student requesting such a waiver must complete an application each semester. The application must be submitted no later than the second Friday of the semester and can be obtained from the Office of the Registrar. The Registrar's Office reviews the applications and submits them to the Financial Aid Office for processing.

## **Nonresident Tuition Waiver for Student Athletes**

www.nmhu.edu/office-of-the-registrar/

Senate Bill 81 authorizes resident tuition status for athletic scholarship recipients. To be eligible, the student must be a recruited athlete. The student must also receive an athletic scholarship through the Department of Athletics and complete an athletic waiver form. For more information, contact the Highlands University Department of Athletics, 505.454.3368.

#### **Veterans Administration Educational Benefits**

www.nmhu.edu/office-of-the-registrar/

Several programs are available for veterans pursuing a postsecondary education. Academic programs are approved by the State Approving Agency and are approved for educational benefits by the Department of Veteran Affairs. Contact the Office of the Registrar for details, 505.454.3424.

Student veterans can compare benefits or apply for the GI Bill at <a href="www.gbill.va.gov">www.gbill.va.gov</a>. University staff are not allowed to advise students on their benefits. Please note the following conditions:

- VA only pays for classes that are part of your core, major or minor.
   Courses previously completed with a passing grade, audit or optional course cannot be certified;
- VA will pay for a course from the day the course begins to the day the course ends. Courses taken with different beginning and ending dates will be adjusted for payment by the VA;
- Students must notify the VA Certifying Official if a course is dropped or withdrawn, and provide a last day of attendance. This date is reported to the VA and may cause an overpayment.

## **Vocational Rehabilitation**

www.dvr.state.nm.us/

Through the New Mexico Division of Vocational Rehabilitation, the state and federal governments offer tuition assistance to students with disabilities. Other assistance also may be given to those students with disabilities who are financially unable to provide services themselves. Students wishing to apply for this assistance should contact the New Mexico Vocational Rehabilitation Office, 505-425-9365.

## Western Undergraduate Exchange Program (WUE)

www.wiche.edu/wue

Highlands University participates in the Western Undergraduate Exchange (WUE) program, which allows students from participating states to attend Highlands at 150 percent of in-state tuition. The application for the WUE program must be submitted no later than the third Friday of the semester to

the Office of the Registrar. The Registrar's Office reviews the applications and submits them to the Financial Aid Office for processing. For a list of participating schools in Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming see <a href="http://www.wiche.edu/search\_results.jsp?searchType=all">http://www.wiche.edu/search\_results.jsp?searchType=all</a>

#### **Workforce Investment Act**

www.dws.state.nm.us/Portals/0/DM/Partners/WIA\_Annual\_Report\_2012\_Revised.pdf

The New Mexico Department of Labor (NM Workforce Connection), the state and federal governments offer assistance with tuition, books, supplies, transportation, and child care for those who qualify. For more information and application process, contact the New Mexico Department of Labor, 505-425-6451.

#### **Study Abroad**

www.nmhu.edu/international-students/

The International Education Center assists students in applying for studyabroad programs sponsored by Highlands University, the New Mexico Public Universities Consortium, and other cooperating institutions.

## **Tuition, Fees and Financial Policies**

## Payment of Charges

Students who enroll in classes at NMHU make a financial commitment to pay the tuition and fees associated with his/her enrollment.

## **Special Policies Regarding Tuition and Fees**

#### Payments, Accounts, and Disbursements

Account balances must be paid according to the plans listed in the schedule of classes. Students with financial assistance should verify their award prior to the payment deadline. The Business Office accepts cash, checks, money orders, credit cards (MasterCard, Discover or Visa), wire transfers, financial assistance awards, and written authorizations to bill external agencies to cover balances. Payments can be made via the Highlands University website www.nmhu.edu or mailed to NMHU Cashier's Office, Box 9000, Las Vegas, NM 87701.

The University reserves the right to cancel a student's registration if the account is not paid in full or payment arrangements have not been made. Account balances that are not paid within the semester will be sent to a collection agency. Holds will be placed on the student's account, restricting transcripts and registration for upcoming semesters.

#### **Disenrollment Policy**

Highlands University students who fail to pay their full required tuition and fee charges or make adequate financial arrangements with the Business Office on or before their first day of classes will have their registration cancelled, and will be disenrolled from all classes by the second week of the term. Students with a cancelled registration who wish to be enrolled at Highlands University must contact the business office to reregister. The student will be required to make full payment, or complete financial arrangements for all incurred charges including a nonrefundable reregistration fee of \$25, and a billing fee of \$25. Please see schedule of classes or www.nmhu.edu for deadlines.

## **Payment Plan/Procedure**

Highlands University Business Office offers students the following payment options:

Students must pay their account in full or make adequate financial arrangements

Adequate financial arrangement option:

Full-term semester courses:

1/3 payment prior to or on the first day of class attendance

1/3 payment 30 days thereafter

1/3 payment 30 days following second payment

Summer or eight-week courses:

1/2 payment prior to or on the first day of class attendance

1/2 payment 30 days thereafter

A \$25 billing fee will be assessed to the student's account if the account is not paid in full by the Monday before the first day of classes.

For more information on payment options, contact the Business Office at 505-454-3222, 505-454-3444 or 505-454-3008, sar@nmhu.edu or write to:

**Business Office** 

New Mexico Highlands University Rodgers Administration Building Box 9000

Las Vegas, NM 87701

## **Summary of Regulations for New Mexico Residency for Tuition Purposes**

A student who enters and remains in New Mexico principally to obtain an education is presumed to continue to reside outside this state, and such presumption continues in effect until rebutted by clear and convincing evidence of bona fide residence. A student determined to be financially dependent on a parent or guardian also assumes the residency of that parent or guardian. The burden of proof is on the student. The student must secure and file the petition with the appropriate documents of evidence in the manner described herein. All documents submitted for this purpose will be kept confidential.

To become a legal resident of New Mexico, four requirements must be met by the student. Each person must meet the requirements individually.

- The 12-month consecutive presence requirement;
- The financial independence requirement;
- The written declaration of intent requirement;
- The overt acts requirements.

Permanent residents must present their valid 10-year I-551 form and establish 12 consecutive months of being a New Mexico resident before applying for in-state residency.

The person, his or her spouse and dependent children of a person who has moved to New Mexico and has obtained permanent full-time employment (sufficient documentation is required) shall not be required to complete the 12-month duration requirement. A person, his or her spouse, and dependents who move to New Mexico for retirement purposes and who provide appropriate evidence of formal retirement shall not be required to complete the 12-month duration requirement.

Other relevant factors may be considered along with those listed above.

A reciprocity agreement between Colorado and New Mexico allows Highlands University to grant a waiver of the nonresident portion of tuition charges to a limited number of students from Colorado. Each student requesting such a waiver must complete the proper application and return it to the Office of the Registrar as early as possible. The application must be submitted no later than the second Friday of classes for the fall or spring semester. The Registrar's Office reviews the applications and submits them to the Financial Aid Office for processing.

All enrolled out-of-state members of an American Indian nation, tribe and pueblo shall be eligible for in-state tuition rates. For specific information, please contact the Office of Admissions or Registrar's Office.

A brochure explaining all requirements for establishing New Mexico residency and residency petitions is available from the Office of the Registrar. Residency petitions will be accepted until the first day of each semester in the Office of the Registrar. For more information, call 505.454.3233.

## **Semester and Summer Sessions**

Tuition and fees are subject to change, the specific amounts charged for tuition and fees are listed each semester or summer session in the published schedule of

classes. Students are advised to check the most current schedule. The schedule of classes is also available at https://banweb.nmhu.edu. The following rates are the 2017-2018 tuition rates. Rates may increase upon approval by the Board of Regents. These figures are provided to help students plan.

Tuition rates are effective with summer session and apply to fall and spring. Summer tuition rates may reflect approved tuition and fee increases from those of the school year before.

## **Nonrefundable Special Fees**

- Application fee (one-time): \$15
- Matriculation fee (one-time): \$5
- Graduation application fee (each award): \$50
- Dishonored check fee \$25
- Laboratory fees: Variable
- Housing application fee: (total fee is \$200)
- Special exam (test-out) fee, per credit: \$40
- Career placement fee, per year (renewal only; first year free): \$15
- Transcript fee: \$5
- Transcript Fax charge: \$5

## Tuition Rates - All rates are subject to change.

Tuition and rate information may be viewed under the Important Information section of the Summary of Schedule located at: https://banweb.nmhu.edu/pdf/rules201810.pdf

## Withdrawal Policies

Students who officially withdraw from the university may be entitled to a tuition refund according to specific dates announced in the schedule of classes for the term. Upon completion of the formal withdrawal process, a check will be mailed to the student within one month following the complete withdrawal from school if a refund is appropriate.

Students who wish to request an exception to the refund policy must do so in writing at the Business Office.

## **Tuition Refund Schedule**

First day of class: 100% refund 10% point in semester: 90% refund 25% point in semester: 50% refund 50% point in semester: 25% refund

Thereafter: No refund

For more information on withdrawal policies, payment options or tuition rates, contact the Business Office.

#### **Housing Services**

Housing Rates for the 2017-2018 academic year may be viewed at: http://www.nmhu.edu/highlands-university-housing/student-housing-rates/

Meal Plans

Meal plans are required for students in residence halls. Information regarding the rates of the 2017-2018 meals can be viewed at www.nmhu.edu/highlands-university-housing/student-housing-rates/

All students residing in residence halls are required to purchase one of the above meal plans. Plan descriptions are available here. Meals are not available over the break periods.

Housing over semester breaks is limited and there is an additional charge.

Residence Hall Association fee of \$40 is assessed each semester.

## **College of Arts & Sciences**

Warren K. Lail, J.D. Ph.D. Interim Dean

Douglas Hall, Room 136 wklail@nmhu.edu 505.454.3080 FAX: 505.454.3389

## Mission of the College of Arts and Sciences

The College of Arts and Sciences provides a challenging, quality undergraduate educational experience that prepares students for personal and professional success in an increasingly complex and rapidly changing world. We educate future professional and social leaders, expand knowledge and create solutions to environmental and social problems, stimulate creativity in the arts, and prepare literate and responsible citizens.

## Description

NMHU's College of Arts & Sciences provides education in the arts, humanities, social and natural sciences. Departments and faculty in the College of Arts and Sciences deliver the majority of the university's core courses and 21 Bachelor of Arts and 10 Bachelor of Sciences curricula. The faculty are dedicated to the improvement of society through the education of future artists, political and social leaders, and scientists from diversity of social, economic, and cultural backgrounds, and through the creation of new creative works and knowledge. Our faculty are accomplished scholars and artists who actively engage undergraduate students in research, scholarship and creative works. Some faculty are investigating solutions to the numerous challenges posed by increasing social and political complexity in rapidly changing natural and developed environments. Other faculty are creating new techniques and concepts in the arts and humanities. Faculty members extensively utilize Southwestern and New Mexican cultures, arts, and natural systems for education, research and service. College faculty serves the university and its student body. They serve professional, governmental, and charitable organizations, and they provide service to communities in the local Southwestern region as well as to nations overseas.

#### **Departments**

- Biology
- Chemistry
- Computer and Mathematical Sciences
- English
- Exercise and Sport Sciences
- History and Political Science
- Languages and Culture
- Natural Resources Management
- Nursing
- Sociology, Anthropology, and Criminal Justice
- Psychology
- Visual and Performing Arts

## **Department of Biology**

Dr. Maureen Romine, Department Chair

Ivan Hilton Science Building, Room 324

Phone: 505-454-3264 FAX: 505-454-3103

E-mail: romine m@nmhu.edu

#### About

The Department of Biology values teaching and research as equal and essential components of the education of our students and seeks to integrate research with teaching at every possible opportunity in the curriculum. Housed in the Ivan Hilton Science Center, students enjoy modern laboratories and instrumentation.

The department offers both BA and BS programs in biology. A recommended curriculum /or plan of study, is available for all degrees.

For those with an interest in teaching with an emphasis in science, other options, aside from earning a degree in biology, include a BA in general science for secondary school teachers (Grades 7-12), a minor in general science for elementary school teachers (Grades K-5), or a combined science minor.

#### Faculty

Sarah Corey-Rivas, Ph.D.
Sarra Hinshaw, Ph.D.
Miki Ii, Ph.D.
Carol Linder, Ph.D.
Ben Nelson, DVM
Jesus Rivas, Ph.D.
Maureen Romine, Ph.D.
Jessica Snow, Ph.D.

#### Mission of the Biology Program

The mission of the Biology Program is to provide students with a high quality education that includes experience with research and field projects. The program provides a scientific and technical background that empowers students to successfully pursue science and technology careers or proceed to advanced graduate studies. Faculty strives to make each student's educational experience challenging and rewarding.

The Biology Program prides itself on its ability to place students into bioscience careers. Data suggest that our graduates are highly successful in being admitted to and completing medical, dental, and veterinary schools and graduate programs nationwide. The department attributes this success to intensive biology laboratory and field experiences with cutting-edge technology and instructors committed to individual student progress. Facilities include laboratories in physiology, microbiology, molecular biology, plant biology, and a greenhouse, as well as nearby field sites for ecological research. A computer laboratory with bioinformatics software is available for classes and student use. Students majoring in biology are taught the practical use of common scientific instrumentation they will encounter in their careers. All biology students seeking a BS are required to complete an undergraduate research project that provides students with a realistic perspective of biology and how scientific investigations are conducted.

## Some careers where a biology degree is appropriate are:

Medicine Optometry/Ophthalmology
Dentistry Occupational therapy
Pharmacy Veterinary medicine

Physical therapy Medical technology
Bioengineering Wildlife Conservation

**Ecologist** 

## Major in Biology (BA)

## Required courses: 54-59 credit hours

BIOL 211 General Biology 1 (4)

BIOL 212 General Biology 2 (4)

BIOL 300 Genetics (4)

BIOL 313 Diversity & Systematics (3)

CHEM 211 General Chemistry 1 (3)

CHEM 212 General Chemistry 2 (3)

CHEM 215 Chemistry Lab 1 (2)

CHEM 216 Chemistry Lab 2 (2)

CHEM 341 Organic Chemistry 1 (4) FOR 340 Quantitative Methods (3)

## Choose one of the following:

BIOL 301 General Microbiology (4)

BIOL 302 Animal Structure & Function (4) BIOL 303 Plant Structure & Function (4)

## Choose one of the following:

BIOL 389 Ecology (4) BIOL 476 Evolution (3)

## Choose one of the following:

BIOL 405 Bacterial Physiology (4) BIOL 423 Molecular & Cell Biology (4)

## Choose one of the following:

MATH 155 Applied Calculus (3) MATH 160 Precalculus (5)

#### Choose one of the following:

PHYS 151 Algebra Physics 1 (4)

AND

PHYS 152 Algebra Physics 2 (4)

OR

PHYS 291 Calculus Physics 1 (5)

AND

PHYS 292 Calculus Physics 2 (5)

#### Electives: 8 credit hours

In consultation with your biology adviser, choose any combination of elective to receive a minimum of eight upper-division credit hours (>300).

Major Total: 62-67 credit hours Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/Electives to 120: 13-18 credit hours

Total for degree: 120 credit hours\*

\*A minor is not required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours taken in the major and proficiency courses. Additional credit hours may be required to meet the 120 credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

## Major in Biology (BS)

Biology majors must take the following required courses and electives.

## Required courses: 65-71 credit hours

BIOL 211 General Biology 1 (4)

BIOL 212 General Biology 2 (4)

BIOL 300 Genetics (4)

BIOL 313 Diversity & Systematics (3)

CHEM 211 General Chemistry 1 (3)

CHEM 215 Chemistry Lab 1 (2)

CHEM 212 General Chemistry 2 (3)

CHEM 216 Chemistry Lab 2 (2)

CHEM 341 Organic Chemistry 1 (4)

MATH 160 Precalculus (5)

MATH 211 Calculus (4)

FOR 340 Quantitative Methods (3)

BIOL 491 Senior Project (2); 1, 3-4

BIOL 498 Applied Biological Research (1-4)

## Choose one of the following:

BIOL 301 General Microbiology (4)

BIOL 302 Animal Structure & Function (4)

BIOL 303 Plant Structure & Function (4)

## Choose one of the following:

BIOL 389 Ecology (4)

 $BIOL\,476\:Evolution\:(3)$ 

Choose one of the following: BIOL 405 Bacterial Physiology (4)

BIOL 423 Molecular & Cell Biology (4)

#### Choose one set from the following:

PHYS 151 Algebra Physics 1 (4)

ANI

PHYS 152 Algebra Physics 2 (4)

OR

PHYS 291 Calculus Physics 1 (5)

AND

PHYS 292 Calculus Physics 2 (5)

#### Electives: 12 credit hours

In consultation with your biology adviser, choose any combination of electives to receive a minimum of 12 upper-division credit hours (>300) with at least nine hours from biology. The remainder can be from any other science including biology. If BIOL 331, 332, and 432 are three of the chosen electives for the BS degree in biology, they will be counted as only a total of eight credits toward the 12 credits required, thus requiring an additional class be taken.

Major Total: 77-83 credit hours Core Total: 35 credit hours

Extended core: 5 credit hours

Proficiency/Electives to 120 - 123: 0 - 3 credit hours

Total for degree: 120-123 credit hours\*

\*A minor is not required. The number of electives to reach the degree total of 120 – 123 credit hours will vary by the number of credit hours taken in the major and proficiency courses. Additional credit hours may be required to meet the 120 – 123 credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

## Major in Biology with a Concentration in Teaching

Biology degree requirement, including the following four credits of electives:

BIOL 359 Fundamentals of Lab Safety (1)

BIOL 420 Teaching Science & Math in Middle & Secondary Schools (3)

And must minor in secondary education

Concentration Total: 69-71 credit hours

#### Minor in Biology

## Required Courses: 16 credit hours

BIOL 211 General Biology 1 (4)

BIOL 212 General Biology 2 (4)

#### Take at least 2 courses of the following list:

BIOL 300 Genetics (4)

BIOL 301 General Microbiology (4)

BIOL 302 Animal Structure & Function (4)

BIOL 303 Plant Structure & Function (4)

BIOL 313 Diversity and Systematics (3)

BIOL 389 Ecology (4)

## Electives: 8 hours

Choose at least two 300-to 400-level courses in biology.

Minor Total: 24 credit hours

## **Biology (BIOL) Course Descriptions**

#### BIOL 110. Biology Perspectives (4); 3, 2 Fa, Sp

An introduction to biology that includes consideration of the diversity of life, the origin of species, and ecology. The course emphasizes those aspects of biology that are of immediate importance to the non-scientist. Required of biology majors who are not yet eligible for ENGL 111 or have an ACT Math score of <17. Does not count toward biology major. NM Common Course Number: BIOL 1114.

## BIOL 131. Human Biology (4); 3, 2 Fa, Sp

Lecture and lab course that conceptually presents the basic aspects of human anatomy and physiology and their interaction with the environment. Current medical and basic science topics are discussed and made relevant. This introductory course is for non-science majors interested in professions related to human conditions.

#### BIOL 135-435. Selected Topics in Biology (1-4 VC) Variable

Course in a topic or topics in biology. May be repeated with change of content.

## BIOL 211. General Biology 1 (4); 3, 2 Fa, Sp

This lecture and laboratory course analytically presents a large scale, evolutionary framework for biological systems. A rigorous, but practical, observational approach to basic evolutionary processes, biodiversity, and the ecology of ecosystems is given. This course is one of two parts of a two-semester general biology sequence, which is required for students who major in the life sciences. Prerequisites: Eligible for ENGL 111 and have an ACT Math score > 16. Recommended Corequisite: CHEM 211 or permission of instructor. NM Common Course Number: BIOL 1214.

# BIOL 212. General Biology 2 (4); 3, 2 Fa, Sp

Provides a general survey of the fundamental concepts of cell biology, including structure and function of small and large molecules, cellular membranes and organelles, an introduction of the biochemical pathways, enzyme function, chromosomes, cell cycle, and cell division. Mendelian genetics, cell communication and signaling, and molecular biology techniques and applications. The laboratory exercises follow the lecture topics and are designed to encourage students to ask questions, to pose hypotheses, and to make predictions before they initiate laboratory work. Prerequisites or Corequisites: BIOL 211 and CHEM 211 or permission of instructor. Recommended Corequisite: CHEM 212. NM Common Course Number: BIOL 1224.

# BIOL 300. Genetics (4); 3, 2 Sp

Fundamental concepts of genetics. The course will cover Mendelian genetics, population genetics and the fundamentals of DNA replication, transcription, translation, and regulation. Prerequisites: BIOL 212, CHEM 211, MATH 120 or permission of instructor.

## BIOL 301. General Microbiology (4); 3, 2 Fa

This course offers students an intensive and comprehensive introduction to microbiology. The course will focus on the physiology and molecular biology of bacteria and viruses. Some emphasis will be placed on microbial pathogenesis. Prerequisite: BIOL 212 or permission of instructor.

## BIOL 302. Animal Structure and Function (4); 3, 2 Alt, Fa, Odd

An introduction to the anatomy, embryology, and physiology of animals. Prerequisite: BIOL 211 and 212 or permission of instructor.

# BIOL 303. Plant Structure and Function (4); 3, 2 Sp

Comparative microscopic and gross structures of plants and major physiological processes. Prerequisite: BIOL 211 and 212 or permission of instructor.

## BIOL 313. Diversity and Systematics (3) Fa

This course introduces the student to the diversity of life. Students will become acquainted with the history of life on earth, the accepted theories for the evolution of ice, and the rise of the different taxonomic groups. Students will study the structure, function, ecology, and taxonomy of bacteria, fungi, protists, plants, and animals with an evolutionary context. The course centers

on identifying, learning, and describing the significant adaptations of the major groups and evolutionary relationships among taxa. Prerequisites: BIOL 211 or permission of instructor.

#### BIOL 331. Human Anatomy & Physiology 1 (4); 3, 2 Fa

Structure and function of the human body at the cellular, tissue, organ, and organ-system levels of organization. Prerequisite: BIOL 212, and Prerequisite or Corequisite: CHEM 212 and CHEM 216 and completion with a grade of C or better or permission of instructor.

#### BIOL 332. Human Anatomy & Physiology 2 (4); 3, 2 Sp

A continuation of BIOL 331. Structure and function of the human body at the cellular, tissue organ, and organ-system levels of organization. Prerequisites: BIOL 331 and completion with a grade of C or better or permission of instructor.

# BIOL 359. Fundamental Principles of Laboratory Safety (1); 1 Fa

Introduction to the principles of laboratory safety including the proper use of emergency safety equipment and personal protective equipment, instructions for the safe handling, labeling, storage and disposal of chemicals, and safety in the biology and physics labs. Emphasis will be placed on preparing science educators in safety procedures. Prerequisites: CHEM 212 or permission of instructor.

## BIOL 389. Ecology (4); 3, 2 Alt, Fa, Odd

Organizational and functional processes of ecosystems: distributions, abundance, and interactions of organisms. Prerequisite: BIOL 313 or permission of instructor.

# BIOL 399. Undergraduate Research (1-6 VC) Variable

Special research problems for selected biology majors. A terminal research paper and oral presentation are required. Prerequisite: Permission of instructor.

## BIOL 405. Bacterial Physiology (4); 3, 2 Variable

Aspects of the physiology and molecular biology of microorganisms. The genetics, molecular structure, and functional aspects of prokaryotic cells will be discussed. Bacterial metabolism will be studied, including energy production and use by aerobic and anaerobic microorganisms. Concepts of cellular growth, biosynthesis, and molecular genetics will also be addressed. Prerequisites: BIOL 300, 301 and CHEM 212 or permission of instructor.

#### BIOL 415. Biotechnology (4); 2, 4 Variable

Introduces students to latest techniques in biotechnology including recombinant DNA, tissue culture, and organelle isolation as well as genetic engineering, industrial microbiology, and agricultural biotechnology. Prerequisites: BIOL 300, and CHEM 211 or permission of instructor. A special fee is assessed.

## BIOL 423. Molecular & Cell Biology (4); 3, 2 Sp

Detailed exploration of basic cellular chemistry, macromolecules, cell structure and function, and mechanisms and regulation of gene expression. The laboratory will explore eukaryotic cell biology using modern molecular biology techniques. Topics include DNA and protein structure and function. Prerequisites: BIOL 300 and one of the following: BIOL 313, 301, 302, 303, 331 or 332 or permission of instructor.

### BIOL 424. Molecular & Cell Biology Laboratory (1); 0, 2 Sp

Laboratory course to accompany BIOL 423. This lab is required of students who have satisfied the molecular & cellular biology lecture requirement but have not taken the laboratory portion.

# BIOL 425. Marine Biology (4); 3, 2 Fa, 3 yr cycle

Major groups of marine invertebrates and algae are observed and studied in their natural habitats. Students participate in a 10-day field trip during the spring break, with transportation and room charge to be determined at the time of the class. Enrollment is limited to 16. Prerequisites: Major or minor in biology, BIOL 313, and permission of instructor.

#### BIOL 427. Immunology (3); Alt, Fa, Even

Study of diseases of vertebrates with emphasis on host-parasite interactions. The course includes principles of isolation, characterization, and control of pathogenic organisms, as well as principles of vertebrate response to infection, antigen-antibody interaction, hypersensitivity, and autoimmune diseases. Prerequisites: BIOL 313 and BIOL 300 or BIOL 331 and 332.

#### BIOL 440. Conservation Biology (3); Alt, Sp, Odd

This course intends to familiarize the student with the major conservation issues of our time and encourage them to think critically about the different problems facing the planet as it moves into the future. This course analyzes the interrelationship between human activities and the environmental crisis and studies alternatives for the preservation of biodiversity. Through the use of case studies and primary literature, students will get a deeper understanding of the complexities associated with the conservation of biodiversity. Prerequisites: BIOL 313 and BIOL 389 or FOR 431.

## BIOL 445. Biology of Vertebrates (3); Fa, 3 yr cycle

Evolution, comparative morphology, classification, and life histories of vertebrates. Prerequisite: BIOL 313.

## BIOL 455. Wildlife Diseases (3); 3 Variable

An introduction to viral, bacterial, and fungal diseases found in wildlife species. The diagnosis and management of the diseases are explored. Prerequisites: BIOL 313, BIOL 300 and one of the following: BIOL 301, 302 or 303 and permission of instructor.

## BIOL 457. Advanced Wildlife Management (3); Sp, 3 yr cycle

This course presents advanced wildlife management concepts and is intended for senior and master-level students that have already taken, or are currently enrolled, in ecology or wildlife management courses. This course addresses the different goals of wildlife management: control of exotic species, restoration of endangered ones and harvesting species via game hunting or commercial use. Students will be expected to master concepts of population control, community ecology, and methods used to analytically calculate population parameters. Prerequisite: BIOL 389 or permission of instructor.

#### BIOL 463. Nutrition (3); 3 Variable

This course provides students with an understanding of animal nutrition and appreciation of the importance of nutrition in health and economics. Subjects to be covered will include digestive anatomy, physiology, and nutrition of various animal species. Prerequisites: BIOL 300 or BIOL 331 and 332 and permission of instructor.

#### BIOL 470. Comparative Animal Behavior (4); 3, 2 Fa, 3 yr cycle

This course presents the basics of animal behavior and is intended for senior and graduate students that have already taken, or are taking, classes in evolution and ecology. The course spans from basic genetics of behavior to the learning and environmental-based issues within a comparative and evolutionary context. Students must understand the mechanisms and evolution of animal behavior. The topics we will explore include the history of the scientific study of behavior; tools and approaches used to study behavior; and the interrelationship with its ecological and evolutionary aspects. Prerequisite: BIOL 313.

#### BIOL 472. Human Evolutionary Behavior (3); Sp, 3 yr cycle

This course intends to familiarize students with evolutionary forces that shape human behavior. This emergent field deals with evolutionary interpretation of human behavior including, group living, mating preference, kin and sexual conflicts, and habitat preference. Students are expected to understand and incorporate principles of evolutionary thinking in designing scientific questions and testable hypothesis about human behavior. This course is also called Evolutionary Psychology in other universities. Prerequisite: BIO 313 or permission of the instructor.

## BIOL 474. Tropical Ecology (3); Sp, 3 yr cycle

This course presents the basics of tropical ecology and is intended for senior or graduate students that have already taken, or are taking, classes in evolution

and ecology. The course spans from basic definitions of tropics geographically to how basic ecological processes work under the particular conditions in the tropics. The course emphasizes aspects related to the high diversity in the tropics in a comparative approach drawing from the students' experiences in temperate systems. Prerequisite: BIOL 389 or other junior-level ecology courses.

## BIOL 475. Field Tropical Ecology (1-4 VC); Su, 3 yr cycle

This course presents the basics of Tropical Ecology and is intended for senior or graduate students that have already taken an upper level class of tropical ecology. This is a hands-on course where students are expected to learn the natural history of representative organisms of the system they study. The practical exam will involve knowledge of taxonomy of plants and animals as well as their ecology and role in the ecosystem. Students are expected to keep a field notebook with carefully noted observations of the ecosystem as well as notes of their field project. Prerequisite: BIOL 474 or permission of instructor.

#### BIOL 476. Evolution (3); Alt, Fa, Even

Evolution, studied in terms of molecular, Mendelian, and population genetics. Prerequisite: BIOL 300 or permission of instructor.

#### BIOL 477. Macroevolution (3); Fa, 3 yr cycle

Macroevolution is the study of patterns and processes driving the diversity of species on earth. In this course, students will learn how patterns of phylogenetic diversity are distributed geographically, and through time, particularly in relation to conservation challenges in the 21st century. Students will analyze data to learn how processes of evolution influence diversity at and above the species level. Topics include: speciation, hybridization, diversity, coevolution, the extinction crisis, phylogenetics, phytogeography, biogeography, contemporary evolution and humans, and related topics. Prerequisite: BIOL 476 or BIO 389 or permission of instructor.

#### BIOL 480. Parasitology (4); 2, 4 Fa, 3 yr cycle

An introduction to the taxonomy and life cycles of vertebrate parasites and pathogenic effects upon their animal hosts: protozoan, trematode, scythed, nematode, and acanthocephalan parasites of domestic animals and man. Prerequisites: BIOL 313 or BIOL 331 and 332 or permission of instructor.

## BIOL 481. Developmental Biology (4); 3, 2 Fa, 3 yr cycle

This course investigates cellular and molecular mechanisms that regulate animal development. Topics include fertilization cleavage, gastrulation, axis specification, organogenesis, morphologies, and stem cells. Laboratory sessions focus on experimental manipulations of early invertebrate and vertebrate embryos and emphasize student-designed research projects. Prerequisites: BIOL 313 and 300 or BIOL 331 and 332.

# BIOL 485. Endocrinology (4); 3, 2 Alt, Sp, Even

This course reviews the embryological origin, histological structure, and function of the endocrine glands. Individual organs, the hormones it produces, and how its function may be integrated at the systemic and cellular level will be examined. Endocrine topics will be presented with real-world examples and presented in a comparative manner among species. Prerequisites: BIOL 313 or BIOL 331 and 332 or permission of instructor.

## BIOL 487. Histology (4); 2, 4 Alt, Sp, Odd

The microanatomy and functional organization of basic tissues: epithelium, connective tissue, cartilage, bone, muscle, and nerve. The course covers the histology of the blood and lymph vascular systems, glands, and secretions, particularly of man. Prerequisite: BIOL 313 or BIOL 331 and 332 or permission of instructor.

# BIOL 489. Molecular Evolution and Ecology (4); 3, 2 Sp, 3 yr cycle

Molecular ecology explores the application of molecular techniques to attain a deeper understanding of ecological systems. Themes of evolutionary and ecological theory, behavioral ecology, genetics, phytogeography, and conservation genetics will be covered. Application-based content will include molecular identification techniques for individuals and species, landscape

and population genetics, hybridization, genomic methods for ecology, and measuring adaptive variation. Technical applications will include data analysis using current software in the field. Prerequisites: BIOL 300 and 476 or permission of instructor.

#### BIOL 490. Independent Study (1-6 VC); Variable

Individual study arranged with an instructor. Prerequisite: Permission of instructor.

#### BIOL 491. Senior Project (2); 1, 3-4 Fa

With the help of the instructor and a faculty mentor, students will use the theoretical and experimental expertise acquired in their classes to develop a scientific question; design an appropriate laboratory, field, or other methods of study to gather information that will help them answer the question; and begin the study that will be completed during the next semester. Prerequisite: Senior classification in biology or permission of instructor.

# BIOL 493. Field Botany (2); 1, 2 Variable

Qualitative and quantitative techniques of community analysis, including floral sampling techniques for estimating population demographic patterns. The taxonomy and natural history of representative groups of land plants will be studied in the field. Prerequisite: BIOL 303 or 313.

## BIOL 494. Field Zoology (3); 1, 3 Alt, Fa, Odd

Qualitative and quantitative techniques of community analysis, including faunal sampling techniques to estimate population demographic patterns. The taxonomy and natural history of representative groups of land animals will be studied in the field. Prerequisite: BIOL 302 or 313.

# BIOL 498. Applied Biological Research (1-4 VC); Fa, Sp

In this capstone course students participate in a research project where they have the opportunity to apply the results of their college preparation. Each class will conduct research toward a biological hypothesis or question chosen by the instructor. Each student will investigate a specific aspect of the broader question culminating with the preparation of a poster, presentation, and/or paper. Students will participate in an applied hands-on research project generating original data that they will compile, analyze, and communicate their results. Prerequisites: BIOL 491 Senior Project I. May be a Corequisite or permission of instructor.

# BIOL 499. Independent Research (1-6 VC); Variable

Individual research arranged with an instructor. Prerequisite: Permission of instructor.

## **Department of Chemistry**

Dr. David Sammeth, Department Chair

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E-mail: d7sammeth@nmhu.edu

#### **About**

The Chemistry Department offers both Bachelor of Science (BS) and Bachelor of Arts (BA) degree programs. The BS degree, approved by the American Chemical Society, offers rigorous training in chemistry and mathematics and is designed specifically for students who wish to pursue graduate studies or employment as chemists. The BA degree, a more versatile program, combines a solid foundation in chemistry with opportunity for breadth of study. It is offered with a biochemistry option, which provides study in the chemistry of life processes and offers the best preparation for medical school and other post-graduate health profession related programs. A recommended curriculum that includes a four-year plan of study is available for all degrees. For those interested in teaching science, there is a BA degree in general science for secondary school teachers (Grades 7 - 12) as well as a minor in general science for elementary school teachers (Grades K - 5), or even a combined science minor. Within any degree program, students gain a practical perspective on chemistry thorough involvement with research projects. The Chemistry  $Program\ is\ highly\ successful\ in\ placing\ its\ graduates\ in\ careers\ in\ industry\ and$ government or in continuing their studies in either a Masters or Doctoral program.

## **Faculty**

Jiao Chen, Ph.D. (analytical, environmental, nanotechnology) David Sammeth, Ph.D. (physical chemistry, spectroscopy) Jan Shepherd, Ph.D. (organic, biochemistry) Chris Stead, Ph.D. (biochemistry) Tatiana Timofeeva, Ph.D. (physical, crystallography)

## Mission and Goal of the Chemistry Program

The mission of the chemistry program is to offer a quality education to students whether they are fulfilling general education requirements, taking background courses for other science, pre-professional, or engineering programs, or following a course of study for a chemistry major or minor while incorporating carefully mentored, hands-on laboratory and research experiences.

The goal of the chemistry program is to effectively prepare chemistry graduates to enter the workforce with a B.S/B.A. degree or to handle the rigors of a more advanced M.S. or Ph.D. program of study. Also, course preparation and advisement are available for students who choose to enter a post graduate, licensed professional program of study for a career in medicine, veterinary science, dentistry, optometry, physical therapy or pharmacy.

# **Resources and Laboratory Facilities**

The Ivan Hilton Science Center provides students with modern chemical laboratories and research facilities. Available for both student and faculty use is a wide assortment of state-of-the-art instrumentation: high-field nuclear magnetic resonance (nmr), X-ray diffraction equipment, liquid chromatography, gas chromatograph-mass spectrometer (gc/ms), IR/UV-visible spectrophotometer, optically stimulated luminescence (OSL). Students who major in chemistry are expected to become fully proficient in the use of the instruments by the time they graduate.

### **Pre-Professional and Pre-Med Curriculum**

A "pre-professional" student is one who follows an undergraduate academic pathway and enters a post-graduate school to obtain a license to practice medicine. Medical doctoral degrees include allopathic (MD), osteopathy (DO), veterinary medicine (DVM), dentistry (DDS or DMD), podiatry (DPM), pharmacy (PharmD), ophthalmology or optometry (MD or OD), and physical therapy (DPT).

Medical schools usually require completion of an undergraduate degree but do not require a specific major for admittance. There is, however, a recommended core of undergraduate courses that will provide the basis for much of the material present on the MCAT (Medical College Admissions Test) or other related entrance exams. Currently, these core courses are:

- 2 Introductory Biology Courses
- 2 General Chemistry Courses
- 2 Organic Chemistry Courses
- 1 Biochemistry course
- 2 Introductory Physics courses
- 2 Math courses (some schools recommend Calculus)
- 2 Behavioral Science courses (Psychology and/or Sociology)
- 2 courses in English/writing

A physiology course is also useful as is a research experience or relevant internship.

All of these core courses can be included in the BA degree in Biochemistry with accompanying Biology minor and completed in four years within the normal academic course load.

## **Majors and Minors in Chemistry**

No minor is required for a BS degree, but one is required for a BA degree. A minor, for example, in biology, mathematics, combined science, or geology can be earned by thoughtful choices of electives. Consult your adviser early in your academic career to establish a degree plan.

## Major in Biochemistry (BA)

### Required Courses: 33 credit hours

CHEM 211 General Chemistry 1 (3)

CHEM 215 General Chemistry Lab 1 (2)

CHEM 212 General Chemistry 2 (3)

CHEM 216 General Chemistry Lab 2 (2)

CHEM 321 Quantitative Analysis (4)

CHEM 341 Organic Chemistry 1 (4)

CHEM 342 Organic Chemistry 2 (4)

CHEM 371 Physical Chemistry 1 (3)

CHEM 481 Biochemistry 1 (3)

CHEM 482 Biochemistry 2 (3)

CHEM 483 Biochemistry Lab (2)

# Electives: 6 credit hours

Biochemistry majors must choose a minimum of six elective credits of upper division courses (>300) from either biology or chemistry with the approval of the chemistry curriculum adviser:

BIO/CHEM >300 Electives (3)

BIO/CHEM >300 Electives (3)

#### Additional requirements: 20-22 credit hours

BIOL 212 General Biology 2 (4)

BIOL 300 Genetics (4)

MATH 211 Calculus 1 (4)

#### Choose one set from the following:

PHYS 151 Algebra Physics 1 (4)

PHYS 152 Algebra Physics 2 (4)

OR

PHYS 291 Calculus Physics 1 (5)

PHYS 292 Calculus Physics 2 (5)

Major total: 57-59 credit hours Core Total: 35 credit hours

Extended core: 5 credit hours
Minor: 20 credit hours minimum\*

# Proficiency/Electives to 120: 1-3 credit hours Total for degree: 120 credit hours\*

\* A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional credit hours may be required to meet the 120 credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

## Major in Chemistry (BA)

#### Required Courses: 31 credit hours

CHEM 211 General Chemistry 1 (3)

CHEM 215 General Chemistry Lab 1 (2)

CHEM 212 General Chemistry 2 (3)

CHEM 216 General Chemistry Lab 2 (2)

CHEM 321 Quantitative Analysis (4)

CHEM 341 Organic Chemistry 1 (4)

CHEM 342 Organic Chemistry 2 (4)

CHEM 371 Physical Chemistry 1 (3)

CHEM 481 Biochemistry 1 (3)

CHEM 495 Senior Chemistry Applications (3)

#### Electives: 6 credit hours

BA chemistry majors must choose a minimum of six elective credits of upper division courses (>300) with the approval of the chemistry curriculum adviser:

# Additional Requirements: 12-14 credits

MATH 211 Calculus I (4)

# Choose one set from the following:

PHYS 151 Algebra Physics 1 (4)

PHYS 152 Algebra Physics 2 (4)

OR

PHYS 291 Calculus Physics 1 (5)

PHYS 292 Calculus Physics 2 (5)

Major Total: 49-51 credit hours

Core Total: 35 credit hours Extended core: 5 credit hours Minor: 20 credit hours minimum

Proficiency/Electives to 120: 11-16 credit hours

Total for degree: 120 credit hours\*

\* A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional credit hours may be required to meet the 120 credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

#### Major in Chemistry (ACS Approved B.S.)

## Required courses: 46 credit hours

CHEM 211 General Chemistry 1 (3)

CHEM 215 General Chemistry Lab 1 (2)

CHEM 212 General Chemistry 2 (3)

CHEM 216 General Chemistry Lab 2 (2)

CHEM 317 Physical Chemistry Lab (3)

CHEM 321 Quantitative Analysis (4)

CHEM 322 Instrumental Analysis (4)

CHEM 341 Organic Chemistry1 (4)

CHEM 342 Organic Chemistry 2 (4)

CHEM 371 Physical Chemistry 1 (3)

CHEM 372 Physical Chemistry 2 (3)

CHEM 461 Inorganic Chemistry 1 (3)

CHEM 481 Biochemistry 1 (3)

CHEM 483 Biochemistry Lab (2)

CHEM 495 Senior Chemistry Applications (3)

#### Electives: 3 credit hours

BS chemistry majors must choose a minimum of six elective credits of upper division courses (>300) with the approval of the chemistry curriculum adviser.

#### Additional requirements: 25 credits

MATH 211 Calculus 1 (4)

MATH 252 Calculus 2 (4)

MATH 273 Calculus 3 (4)

MATH 320 Linear Algebra (3)

PHYS 291 Calculus Physics 1 (5)

PHYS 292 Calculus Physics 2 (5)

Major Total: 74 credit hours

Chemistry students may choose mathematics, physics, or biology as an optional minor. The combined science minor is sometimes used as an alternative.

The student may also choose a non-ACS approved Bachelor of Science program. This program deletes, CHEM 461, MATH 273, and MATH 320 from the above list of required courses. If students choose this option, they must add nine more upper division credits in consultation with a chemistry adviser.

# **Minor in Chemistry**

## Required courses: 18 credit hours

CHEM 211 General Chemistry 1 (3)

CHEM 215 General Chemistry Lab 1 (2)

CHEM 212 General Chemistry 2 (3)

CHEM 216 General Chemistry Lab 2 (2)

CHEM 321 Quantitative Analysis (4)

CHEM 341 Organic Chemistry 1 (4)

## Electives: 3-4 credit hours

# Choose a minimum of one course from the following list:

CHEM 322 Instrumental Analysis (4)

CHEM 342 Organic Chemistry 2 (4)

CHEM 371 Physical Chemistry 1 (3)

Minor Total: 21-22 credit hours

# **Chemistry (CHEM) Course Descriptions**

## CHEM 100. Chemistry for the Non-Scientist (4); 3, 2 Fa, Sp

Introduction to chemistry for the non-science major including a study of basic concepts of chemical principles offerings students an overview off the chemical aspects of nature and how their lives are affected. NM Common Course Number: CHEM 1114.

# CHEM 135 - 435. Selected Topic in Chemistry (3); Variable

In depth exploration of a selected topic (s) in chemistry. May be repeated with change of content.

# CHEM 211. General Chemistry 1 (3); Fa, Sp

Fundamental concepts of chemistry including the metric system, significant figures, properties of matter, stoichiometry, chemical formulas, types of reactions, balancing equations, thermochemistry, periodicity, chemical bonding, electronegativity, Lewis structures, molecular geometry, solution preparations and reactions in solutions, the mole concept and its applications. Prerequisite: MATH 120 with a minimum grade of C. Corequisite: CHEM 215. NM Common Course Number: CHEM 1213.

## CHEM 212. General Chemistry 2 (3); Fa, Sp

A continuation of CHEM 211. Includes energy forms and changes, characteristics of gases, liquids, solids, thermodynamics, reaction kinetics, chemical equilibria, acids, bases, buffers, electrochemistry, nuclear chemistry, introductory organic chemistry and biochemistry. Prerequisites: CHEM 211

and CHEM 215. Corequisite: CHEM 216 and MATH 140. NM Common Course Number: CHEM 1223.

# CHEM 215. General Chemistry Laboratory 1 (2); 0, 3, 1 recitation; Fa, Sp

The recitation will focus on theoretical problem-solving skills, while the laboratory develops practical experimental skills including basic laboratory techniques, calculations, documentation, determination of physical and chemical properties of matter, single displacement and precipitation reactions, atomic spectra, separation of mixtures, the basics of volumetric and gravimetric analyses and use of molecular models.. Corequisite: CHEM 211. NM Common Course Number: CHEM 1211.

# CHEM 216. General Chemistry Laboratory 2 (2); 0, 3, 1 recitation; Fa, Sp

The recitation will focus on theoretical problem-solving skills, while the laboratory develops practical experimental skills, including calorimetry, chemical kinetics, chemical equilibria, acid/base titrations, spectrophotometric analysis, electrochemistry and redox reactions, gas behavior, and colligative properties of solutions. Corequisite: CHEM 212. NM Common Course Number: CHEM 1221.

### CHEM 255. Chemistry Research Seminar (1); Fa, Sp

Seminar focused on current research projects and related literature.

## CHEM 299. Undergraduate Research (1-3 VC)

Problems in laboratory or literature may be undertaken as individual research arranged with an instructor. Prerequisite: Permission of instructor.

## CHEM 317. Physical Chemistry Lab (3); 0, 6 Variable

Basic electronics, optics, thermodynamic properties, reaction kinetics, and instrumentation analysis, including IR, UV-VIS, GC, NMR, MS, X-ray, LC, and electro-analytical techniques for the determination of molecular structure and properties. Prerequisites: CHEM 322, CHEM 342, and MATH 252.

# CHEM 321. Quantitative Analysis (4); 3, 1, 3 Fa

Quantitative analysis is a sub-discipline within analytical chemistry, which deals with the identification and assay of a material of its components, statistical data analysis, chemical equilibrium systems and electrochemistry, Prerequisites: CHEM 212, CHEM 216, and MATH 140.

# CHEM 322. Instrumental Analysis (4); 3, 3 Sp

Instrument analysis is an important branch of analytical chemistry, which covers the design, operational principles and practical applications of modern instrumental methods used in chemical analysis. The course includes spectroscopic methods (UV-Vis/fluorescence/Infrared spectroscopy, atomic absorption/emission spectroscopy, mass spectrometry, etc.), separation methods (gas/liquid chromatography, HPLC,etc), electrochemical methods (coulometry, potentiometry, voltammetry, etc.) and additional topics. Prerequisite: CHEM 321.

### CHEM 325. Environmental Chemistry (3); Variable

Environmental chemistry explores the sources, distribution, reactions, fate, transport, and consequences of chemicals in natural systems. Reactions in aquatic, terrestrial, and atmospheric environments will be considered, including both biological and abiotic transformations. Prerequisite: CHEM 341.

## CHEM 341. Organic Chemistry 1 (4); 3, 3, 1 recitation; Fa

An intensive study of the chemistry of carbon compounds, including structure, synthesis, and reaction mechanisms. The lab component will include the study of the isolation, purification, and identification of various classes of organic compounds. Prerequisites: CHEM 212 and CHEM 216.

### CHEM 342. Organic Chemistry 2 (4); 3, 3, 1 recitation; Sp

A continuation of CHEM 341. Special topics, including an introduction to biochemistry and polymer chemistry, are included. The lab component will include the synthesis of various classes of organic compounds and their identification using modern spectroscopic techniques. Prerequisite: CHEM 341.

### CHEM 359. Fundamentals of Laboratory Safety (1); Variable

Introduction to the principles of laboratory safety, including the proper use of emergency safety equipment and personal protective equipment; instructions for the safe handling, labeling, storage, and disposal of chemicals; and safety in the biology and physics labs. Emphasis will be placed on preparing science educators in safety procedures. Prerequisite: CHEM 212, or permission of instructor.

#### CHEM 371. Physical Chemistry 1 (3); Alt, Fa, Odd

Chemical theory of states of matter, thermodynamics, equilibria, and kinetics. Prerequisites: CHEM 342, MATH 212, and PHYS 292.

## CHEM 372. Physical Chemistry 2 (3); Alt, Sp, Even

Topics include quantum mechanics, statistical mechanics, spectroscopy, and molecular structure. Prerequisites: CHEM 371 and MATH 252.

# CHEM 419. Advanced Synthesis & Instrumental Analysis (3); 0,6 Variable

An advanced chemical preparation and chemical instrumentation laboratory. Synthesis emphasizes inorganic compounds and uses modern separation, purification, and instrumental analysis techniques. Additionally, instrumental analysis will explore modern methods of trace analysis. Instrumentation may include NMR, GC-MS, FT-IR, fluorescence, HPLC, CE, powder X-ray diffraction, and electrochemistry. Prerequisite: CHEM 321 or 322 is required; CHEM 317 and CHEM 372 are recommended.

#### CHEM 441. Reaction Mechanisms (3); Alt, Fa, Odd

Theoretical organic chemistry, including molecular orbital theory, photochemistry, orbital symmetry, and reaction mechanisms. Prerequisites: CHEM 317, CHEM 342, and CHEM 372.

## CHEM 442. Synthetic Chemistry (3); Alt, Sp, Even

An advanced treatment of synthetic organic and inorganic chemistry and reaction mechanisms. Prerequisite: CHEM 317, CHEM 342, and CHEM 372.

### CHEM 450. Seminar in Chemistry (1-3 VC)

Seminar course in a topic or topics in chemistry. Prerequisites: CHEM 317, CHEM 342, and CHEM 372.

## CHEM 455. Chemistry Research Seminar (1); Fa, Sp

Seminar focused on current research projects and related literature.

## CHEM 461. Inorganic Chemistry 1 (3); Variable

Quantum mechanical approach to chemical bonding, crystal and ligand field theory, acid/base theories, and transition metal chemistry. Prerequisites: CHEM 317 and CHEM 372.

# CHEM 462. Inorganic Chemistry 2 (3); Variable

A continuation of CHEM 461. Topics include metal, transition metal, and nonmetal inorganic topics, and symmetry as related to spectroscopy and reaction mechanisms. Prerequisite: CHEM 461.

#### CHEM 473. Chemical Kinetics (3); Variable

An in-depth study of chemical reaction kinetics. Prerequisites: CHEM 317 and CHEM 372.

#### CHEM 481. Biochemistry 1 (3); Fa

Begins with an introduction to the chemistry of biologically important molecules, including proteins, carbohydrates, lipids, and nucleic acids; before exploring enzymatic properties, kinetics and metabolism. Prerequisite: CHEM 342.

## CHEM 482. Biochemistry 2 (3); Sp

A continuation of CHEM 481. Prerequisite: CHEM 481.

# CHEM 483. Biochemistry Laboratory (2); Sp, Fa

Biochemistry Laboratory will give students hands-on experience with mod-

ern biochemistry and molecular biology experimental techniques, such as, cloning, PCR and protein expression, purification and analysis.

## CHEM 490. Independent Study (1-6 VC)

Individual, directed study arranged with an instructor. A thesis and oral presentation are required. Prerequisite: Permission of instructor.

#### CHEM 495. Senior Chemistry Applications (3); Sp

Consists of an open-ended advanced chemistry project that include presenting oral and written reports that are designed to reveal each student's overall understanding of chemistry. Prerequisite: CHEM 372 or permission of instructor.

## CHEM 499. Independent Research (1-6 VC)

A research problem in chemistry, explored through individual, directed research arranged with an instructor. A thesis and oral presentation are required. Prerequisite: Permission of instructor.

# Department of Computer Science & Mathematical Science

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## **Faculty**

Ken Alford, M.S. (Math)

Gil Gallegos, Ph.D. (Computer science)

Earnest Richard "Dick" Greene, Ph.D. (Engineering)

Jeff Houdak, M.S. (Mathematics)

John S. Jeffries, Ph.D. (Mathematics)

Richard Medina, Ph.D. (Computer science)

Joe Sabutis, Ph.D. (Physics)

Kazumi Stovall, M.S. (Mathematics)

Gregg Turner, Ph.D. (Mathematics)

#### General Engineering (ASGE)

The Associate of Science in General Engineering degree provides the opportunity for students to develop a solid, general proficiency in engineering, mathematics, physics and computer science by providing their beginning two-to-three years of General Engineering. Students who complete the two-to-three year ASGE degree program will be prepared for transfer to an ABET-accredited four-year engineering school in order to obtain their bachelor of science degree in an engineering discipline. Engineering as a major is a diverse and rewarding field that can open up a vast array of engineering career options including, but not limited to: aerospace, biological, biomedical, chemical, environmental, electrical, mechanical and control systems.

#### Major in General Engineering (AS)

## Required courses: 47 credit hours\*

ENGR 215 Intro Mathematics for Engineering Applications (4)

ENGR 220 Circuit Theory (3)

ENGR 237 Vector Mechanics/Statics (3)

ENGR 245 Programming for Engineering & Scientists (3)

ENGR 251 Digital systems Modeling Analysis, Simulation and Design

ENGR 288 Vector Mechanics/Dynamics (3)

ENGR 298 Thermodynamics (3)

MATH 211 Calculus 1 (4)\* (also applies to core requirements)

MATH 252 Calculus 2 (4)

MATH 273 Calculus 3 (4)

MATH 325 Ordinary Differential Equations (3)

PHYS 291 Calculus Physics 1 (5)\* (also applies to core requirements)

PHYS 292 Calculus Physics 2 (5)\* (also applies to core requirements)

Major Total: 36 credit hours Core Total: 35 credit hour Extended core: 5 credit hours

Total for degree: 76\*

\*Total units for the degree may exceed 76 credit hours if proficiency courses are required. The University requires a minimum of 76credit hours for this degree. MATH 211, PHYS 291 and PHYS 292 are required for both the core and major, and count in both areas.

#### Major in Computer Science (BS/BA)

## Required core: 22 credit hours for the BS and BA

CS 144 Introduction to Computer Science (3)

CS 145 Introduction to Object-oriented Programming (3)

CS 245 Advanced Computer Programming (3)

CS 350 Programming Seminar 1 (3)

CS 431 Database Management (3)

CS 451 Software Engineering (3)

CS 481 Senior Project Design (1)

CS 482 Senior Project Implementation (3)

Core Total: 22 credit hours

#### Required concentration:

Choose from the software and hardware systems, information systems, or individualized software/hardware systems concentration (BS).

#### Concentration in Software/Hardware Systems (BS)

Students of computer science concentrating in software/hardware systems follow a program of study designed within the framework of the guidelines established by the Association for Computing Machinery. Students study computer programming systems for a wide variety of applications in professional, scientific, engineering, and technical settings. Thorough exposure, with plenty of hands-on laboratory work, is given in computer science basics, one or more computer languages, and such topics as data and file structures, database management, algorithms, machine organization, assembly language, and operating systems. A solid foundation is acquired in mathematics: computer science students complete mathematics courses through introductory calculus, applied linear algebra, and introductory statistics.

The program at Highlands stresses not only solid technical and theoretical knowledge, but also the real-world skills of written and oral communication, planning, and organization of tasks. Students completing the major should be prepared to work in industry or go on to graduate school. Minor students may readily convert to major status.

#### Required courses: 19 credit hours

CS 341 Machine Architecture and Assembler Language Programming

CS 345 Data & File Structure (4)

CS 421 Advanced Data Structure and Algorithm Development (3)

CS 443 Operating Systems (3)

CS 450 Programming Seminar 2 (3)

CS 461 Programming Language (3)

## Electives: 9 credit hours

#### Choose one course from the following list:

CS 314 The C++ Programming Language (3)

CS 316 Programming in LISP & PROLOG (3)

CS 328 C and UNIX (3)

CS 418 Multimedia Program (3)

CS 463 Web Programming (3)

CS 471 Artificial Intelligence (3)

Also choose at least six credits in courses at the 300 or 400 level in computer science, mathematics, or an appropriate science, selected with the approval of the major adviser.

## Additional required courses: 24 credits

ENGL 367 Technical Writing (3)

ENGR 384 Microprocessor Design (3)

MATH 211 Calculus 1 (4)

MATH 252 Calculus 2 (4)

MATH 317 Discrete Math (4)

MATH 320 Linear Algebra (3)

MATH 345 Math Statistics 1 (3) Concentration Total: 52 credit hours

Required cores: 22 credit hours
Major Total: 74 credit hours
Core Total: 35 credit hours

Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/Electives to 120: 6 credit hours Total for degree: 120 credit hours\* \*A minor is not required. Additional credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### Concentration in Information Systems (BA)

Students within this concentration learn to apply skills and knowledge in programming and systems design to the world of business. A special selection of courses from the School of Business Media and Technology is offered in conjunction with intensive courses in contemporary computer science and information systems. Minor students may readily convert to major status. Computer science students with a concentration in information systems find work in diverse business settings, either managing or designing computer systems.

The Highlands program stresses a solid foundation in programming involving data and files structures, and gives students practical experience in hardware, operating systems, and networks. In addition, specific application to the world of business systems is provided by courses in business data processing, software design, and systems analysis.

# Required core: 22 credit hours

Required courses: 14 credit hours

CS 211 Intro to Object-Oriented COBOL for Business Data Processing (3) OR

CS 318 Business Apps Programming (3)

CS 331 Decision Support Systems (3)

CS 351 Systems Design & Analysis (3)

CS 457 Computer Networks (3)

CS 483 Senior Project Presentation (2)

#### Electives: 9 credit hours

Choose three credits from the following list:

CS 131 A Gentle Introduction to Internet (1)

CS~325~Computer~Hardware~Install~and~Maintenance~(1)

CS 326 Computer Software Installation (1)

CS 327 Hands-on UNIX (1)

CS 335 Select Topics (1)

Also choose at least six credits in courses at the 300 or 400 level in computer science, mathematics, business, or an appropriate discipline, selected with the approval of the major adviser.

## Additional required courses: 15 - 16 credits

ACCT 287 Principles of Financial Accounting (3)

MATH 317 Discrete Math (4)

OR

MATH 345 Math Statistics 1 (3)

ENGL 367 Technical Writing (3)

MGMT 303 Principles of Management (3)

MGMT 386 Human Resource Management 1 (3)

Concentration Total: 38 - 39 credit hours

Required cores: 22 credit hours Major Total: 60 – 61 credit hours Core Total: 35 credit hours Extended core: 5 credit hours

Minor to 120: 20 credit hours minimum Proficiency/Electives to 120: 0 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the major and minor. Additional credit hours may be required and exceed the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit

requirement. The university requires a minimum of 45 upper-division units for the degree.

## Major in Computer Science with an Individualized Concentration (BA/BS)

Computer Science offers a major leading to a Bachelor of Arts or Bachelor of Science degree that permits students to develop their own computer science-related course of study. Programs under this option must consist of a coherent sequence of courses and must be approved by a faculty member from the related field. Possible programs of study include scientific computing, communication technology, networking, computer engineering, artificial intelligence, graphics, or advanced multimedia and web programming studies to prepare students for graduate work. Students are strongly encouraged to seek approval prior to completing courses to fulfill this requirement.

#### Required courses: 3 credit hours

CS 443 Operating Systems (3)

#### Electives: 12 credit hours

Choose at least 12 credits in computer science selected with the approval of the major adviser.

# Additional required courses: 30 credit hours

ENGL 367 Technical Writing (3)

Choose at least 12 credits in one or more related fields with the approval of the major adviser.

Choose at least nine credits in courses at the 300 or 400 level in computer science or in one or more related fields with the approval of the major adviser.

Choose at least six credits in mathematics starting with Math 140 or above.

Concentration Total: 45 credit hours Required core: 22 credit hours Major Total: 67 credit hours Core Total: 35 credit hours Extended core: 5 credit hours

Minor to 125: 20 credit hours minimum Proficiency/Electives to 120: 0 credit hours Total for degree: 127 credit hours\*

\*A minor is required. The number of electives to reach the degree total of 127 credit hours will vary by the number of credit hours required by the major and minor. Additional credit hours may be required and exceed the 127-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 127-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

# Major in Math and Computer Science for Secondary School Teachers (Grades 7-12)

This major requires a core of courses from mathematics and computer science. Graduates of the program will be equipped to teach both mathematics and computer science in secondary schools. The purpose of the major is to provide secondary school teachers in training with a fundamentally strong background in mathematics and computer science. This will create a greater pool of talent in math and computer science education, from which middle and high school teachers can be drawn. The program has been designed to emphasize the fundamental understanding of both mathematics and computer science.

## The objectives of the math and computer science major are to:

Provide secondary teachers in training a program that will adequately prepare and encourage them to teach the expected mathematics and computing courses to students in middle and high school math and computer science programs.

Train math teachers to develop each of the competencies required by the State Board of Education for licensure in math education.

Broaden the scope of mathematics and computing to secondary school teach-

ers in training, allowing them to develop methods in which to relay the content material to their students so that the students can fully understand what is being taught.

Provide secondary teachers in training with the background so they can assume responsibility for managing the computing facilities at their school.

## Prerequisite courses: 8 credit hours

MATH 140 College Algebra (3\*) MATH 160 Precalculus (5)

# Major in Math and Computer Science for Secondary School Teachers (BA)

#### Required courses: 40 credit hours

CS 144 Introduction to Computer Science (3)

CS 145 Introduction to Object-Oriented Programming (3)

CS 245 Advanced Computer Programming (3)

CS 430 Computer Tech in the Classroom (3)

MATH 211 Calculus 1 (4)

MATH 252 Calculus 2 (4)

MATH 273 Calculus 3 (4)

MATH 320 Linear Algebra (3)

MATH 345 Math Stats (3)

MATH 406 College Geometry (3)

MATH 421 Applied Abstract Algebra (3)

MATH 430 Math Problem Solving (4)

#### Electives: 11 credit hours

### Choose one course from the following:

MATH 317 Discrete Math (3)

Any 400-level math course approved by adviser

### Choose two courses from the following:

CS 325 Comp Hardware Install & Maintenance (1)

CS 326 Comp Software Installation (1)

CS 327 Hands on UNIX (1)

CS 332 Advanced Internet (1)

## Choose two courses from the following:

CS 350 Programming Seminar 1 (3)

CS 351 System Design & Analysis 1 (3)

CS 456 Internet Services (3)

CS 457 Computer Networks (3)

CS 463 Web Programming (3)

Other approved three-credit senior level courses in computer science.

Major Total: 51 credit hours Core Total: 35 credit hours

Extended core: 5 credit hours Minor: 20 credit hours minimum

Proficiency/Electives to 120: 9 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the major and minor. Additional credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

# Minor in Computer Science with Concentration in Information Systems

## Required courses: 19 credit hours

CS 144 Introduction to Computer Science (3)

CS 145 Introduction to Object Oriented Programming (3)

CS 245 Advanced Computer Programming (3)

CS 351 System Design and Analysis (3)

MATH 317 Discrete Mathematics (4)

CS 211 Introduction to Object Oriented COBOL for Business Data Processes (3)

OR

CS 318 Business Applications Programming (3)

#### Electives: 5 credit hours

### Choose one course from the following:

CS 331 Decision Support System (3)

CS 431 Database Management (3)

CS 451 Software Engineering (3)

## Choose two courses from the following:

CS 325 Computer Hardware Installation and Maintenance (1)

CS 326 Computer Software Installation (1)

CS 327 Hands on UNIX (1)

OR CS 1/335 Selected Topics in Computer Science (1-4)

Minor total: 24 minimum credit hours

# Minor in Computer Science with Concentration in Software/Hardware Systems

#### Required courses: 10 credit hours

CS 144 Introduction to Computer Science (3)

CS 145 Introduction to Object-Oriented Programming (3)

CS 245 Advanced Computer Programming (3)

CS 327 Hands-on UNIX (1)

## Electives: 9 credit hours

Choose one programming course from the following list:

CS 314 The C++ Programming Language (3)

CS 316 Programming in LISP & PROLOG (3)

CS 328 C and UNIX (3)

CS 418 Multimedia Programming (3)

CS 463 Web Programming (3)

CS 471 Artificial Intel (3)

Choose at least six credits in courses at the  $300 \ \mathrm{or} \ 400$  level in computer science.

## Additional required courses: 4

MATH 317 Discrete Math (4)

Minor Total: 23 credit hours

## Major in Mathematics (BS)

A major in mathematics leading to a Bachelor of Science degree requires at least 47 hours consisting of 35 hours of required mathematics courses, at least six hours of mathematics electives, and six hours of computer science courses. In addition, the student is required to obtain a minor in one of the sciences, with a minor in physics being highly desirable.

### Required courses: 35 credit hours

MATH 211 Calculus 1 (4)

MATH 252 Calculus 2 (4)

MATH 273 Calculus 3 (4)

MATH 317 Discrete Math (4)

MATH 325 Applied Ordinary Differential Equations (3)

MATH 320 Linear Algebra (3)

MATH 345 Math Statistics 1 (3)

MATH 421 Applied Abstract Algebra (3)

MATH 425 Introduction to Real Analysis (3)

MATH 430 Mathematical Problem Solving (4)

#### Electives: 6 credit hours

Choose two 400-level math electives

#### Additional required courses: 6 hours

<sup>\*</sup>Applies to university proficiency requirement.

CS 144 Introduction to Computer Science (3)

CS 145 Introduction to Object-Oriented Programming (3)

Major Total: 47 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Minor: 20 credit hours, minimum Proficiency/Electives to 120: 13 credit hours

Total for degree: 120 credit hours\*

\*A science minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the major and minor. Additional credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

## Major in Mathematics (BA)

The Bachelor of Arts in mathematics comprises the same curriculum of mathematics courses as for the Bachelor of Science degree. However, Bachelor of Arts candidates will select an academic minor in a field other than science.

#### Minor in Mathematics

Students desiring a minor in mathematics are required to complete at least 29 hours in mathematics courses consisting of 23 hours of required courses and at least six hours of mathematics electives.

# Required courses: 23 credit hours

MATH 211 Calculus 1 (4)

MATH 252 Calculus 2 (4)

MATH 273 Calculus 3 (4)

MATH 317 Discrete Math (4)

MATH 320 Linear Algebra (3)

MATH 430 Math Problem Solving (4)

#### Electives: 6 credit hours

Choose two 300- or 400-level math electives.

Minor Total: 29 credit hours

# Major in Math and Computer Science for Secondary School Teachers (Grades 7-12)

This major requires a core of courses from mathematics and computer science. Graduates of the program will be equipped to teach both mathematics and computer science in secondary schools. The purpose of the major is to provide secondary school teachers in training with a fundamentally strong background in mathematics and computer science. This will create a greater pool of talent in math and computer science education from which middle and high school teachers can be drawn. The program has been designed to emphasize the fundamental understanding of both mathematics and computer science.

## The objectives of the math and computer science major are to:

- Provide secondary teachers in training a program that will adequately prepare and encourage them to teach the expected mathematics and computing courses to students in middle and high school math and computer science programs.
- Train math teachers to develop each of the competencies required by the State Board of Education for licensure in math education.
- Broaden the scope of mathematics and computing to secondary school teachers in training, allowing them to develop methods in which to relay the content material to their students so that the students can fully understand what is being taught.
- Provide secondary teachers in training with the background so they can assume responsibility for managing the computing facilities at their school.

## Prerequisite courses: 8 credit hours

MATH 140 College Algebra  $(3^*)$ 

## MATH 160 PreCalculus (5)

\*Applies to university proficiency requirement.

# Minor in Math and Computer Science for Elementary School Teachers (Grades K-8)

The purpose of this minor is to provide elementary school teachers in training with a fundamentally strong background in mathematics and computer science. The objectives of the math and computer science minor are to:

- Provide elementary teachers in training a program that will adequately prepare and encourage them to teach the fundamental concepts of mathematics and computing to students at the elementary level.
- Broaden the scope of mathematics and computing to elementary school teachers in training, allowing them to develop methods in which to relay the content material to their students so that the students can fully understand what is being taught.
- Provide elementary teachers in training with the background so they
  can assume responsibility for managing the computing facilities at their
  school.

#### Prerequisites: 9 credit hours

MATH 115 Math for Elementary Teachers 1 (3)

MATH 130 Math for Elementary Teachers 2 (3)

CS 101 Living with Computers (3)

## Required courses: 17 credit hours

MATH 140 College Algebra (3)

MATH 160 PreCalculus (5)

CS 144 Introduction to Computer Science (3)

CS 145 Introduction to Object-Oriented Programming (3)

CS 245 Advanced Computer Programming (3)

#### Electives: 12 credit hours

Choose two courses from the following:

MATH 317 Discrete Math (3)

MATH 345 Math Statistics 1 (3)

MATH 406 College Geometry (3)

Any 300- or 400-level math course approved by adviser

Choose three courses from the following:

CS 325 Computer Hardware Install & Maintenance (1)

CS 326 Computer Software Installation (1)

CS 327 Hands-on UNIX (1)

CS 332 Advanced Internet (1)

Any 300- or 400-level computer science course approved by adviser

#### Choose one course from the following:

CS 456 Internet Services (3)

CS 457 Computer Networks (3)

CS 463 Web Programming (3)

Minor Total: 27 credit hours

# **Minor in Physics**

The program of studies for a minor in physics consists of at least 22 hours of physics courses (16 hours of required physics courses and at least six hours of elective physics courses) and three hours of required mathematics (MATH325). Prior to enrolling in this minor, students are required to complete Calculus 1, 2 and 3 (MATH211, MATH252, and MATH273 respectively).

## Required courses: 16 credit hours

PHYS 291 Calculus Physics 1 (5)

PHYS 292 Calculus Physics 2 (5)

PHYS 361 Modern Physics and Relativity (3)

MATH 325 Applied Ordinary Differential Equations (3)

#### Electives: 6-8 credit hours

### Choose two courses from the following list:

PHYS 300 Astrophysics (4)

PHYS 311 Mechanics (3)

PHYS 402 Statistical Mechanics (3)

PHYS 421 Electricity & Magnetism 1 (4)

Minor Total: 16 credit hours

## Engineering (ENGR), Courses in

# ENGR 215. Introductory Mathematics for Engineering Applications (4); 3, 2 Fa, Sp

This course will provide an overview of the salient math topics most heavily used in the core sophomore-level engineering courses. These include algebraic manipulation of engineering equations, trigonometry, vectors and complex numbers, sinusoids and harmonic signals, systems of equations and matrices, differentiation, integration and differential equations. All math topics will be presented within the context of an engineering application, and reinforced through extensive examples of their use in the core engineering courses. Prerequisites: MATH 140 and 160.

## ENGR 220. Circuit Theory (3); 2, 2, 1 Fa, Sp

Almost all disciplines of engineering must be familiar with the basic concepts of circuit analysis and design. Topics covered in this course are circuit principles, network theorems, natural and forced responses of first and second linear order. Computer modeling using SPICE and lab design experiments support this class. Prerequisites: MATH 252 and PHYS 292.

### ENGR 237. Vector Mechanics/Statics (3); Fa, Sp

A lecture/laboratory course concerning the application of laws of Newtonian mechanics to stationary systems and rigid bodies. Topics included are: fundamental concepts, review of vector operations, types of forces, systems of forces and moments, objects and structures in equilibrium, centroids and center of mass, moments of inertia, friction, internal forces and moments. Prerequisite: MATH 252 and PHYS 291.

# ENGR 245. Programming for Engineers and Scientists (3); 2, 2 Fa, Sp

This course is an introductory lecture/laboratory course concerned with the application of a high level computer language to solve engineering and scientific problems. Topics to be covered will include: data types, operators, and functions, control flow, programming methods, arrays, introduction to numerical methods, and external device/port programming. Prerequisites: A grade of C or better in MATH 211, ENGR 115 or permission of instructor.

# ENGR 251. Digital Systems Modeling Analysis, Simulation and Design (3); 2, 3 Fa, Sp

This course will introduce the principles and practice of digital logic design and simulation. Contemporary computer simulation and hardware design tools such as hardware description language (VHDL) and field programmable gate array (FPGA) will be used. Basics of Boolean algebra, combinatorial and sequential circuits will be covered. Prerequisite: MATH 211 or permission of instructor.

### ENGR 288. Vector Mechanics / Dynamics (3); 2, 2 Fa, Sp

This course is a lecture/laboratory course concerned with the application of Newtonian mechanics to the motions of particles, systems of particles, and rigid bodies. Topics to be covered include: review of dynamic systems and MATHLAB programming, Newton's law, energy methods, momentum methods, kinematics of particles, kinetics of particles, kinematics of rigid bodies and kinetics of rigid bodies. Prerequisite: Grade of C or better in ENGR 237.

## ENGR 290. Independent Study in Engineering (1 - 4 VC); Fa, Sp

Individual study arranged with an instructor. Prerequisite: Permission of instructor.

### ENGR 298. Thermodynamics (3); 2, 2, 1 Fa, Sp

This is a lecture course concerning the application of classical thermodynamics to engineering systems. Topics included are: properties of a pure substance, work and heat, the first law of thermodynamics, first law of analysis for a control volume, and second law analysis for control volume, and power and refrigeration cycles. Prerequisite: CHEM 211, PHYS 192, and MATH 273, or permission of instructor.

## Computer Science (CS), Courses in

## 101. Living with Computers (3); 2, 2 Fa, Sp

This course provides a broad and exciting introduction to the field of computer science and the impact that computation has today on every aspect of life. In addition to learning the fundamental concepts of computer operations, students will also study the use of computers as a tool in solving problems creatively. It will look into how connectivity and the Internet have revolutionized computing. The course will also include computer and information technology concepts; privacy, economic, social, and ethical implications of technology; and spreadsheet, word processing, and presentation applications.

## CS 131. A Gentle Introduction to Internet (1); Fa, Sp

An introduction to the Internet, exploring the global electronic superhighway. Prerequisite: Proficiency in Windows.

## CS 135-435. Selected Topics in Computer Science (1-4 VC); Fa, Sp

Course in a topic or topics in computer science. May be repeated with change of content.

# CS 140. Introduction to Problem Solving and Computers (3); Fa, Sp

Presents methods of analyzing and strategies for solving problems of all types. Introduces a programming language while presenting a model of how a computer works as a problem-solving machine.

## CS 144. Introduction to Computer Science (3); 2, 2 Fa, Sp

Introduction to computer science and its subfields including the operating systems, hardware, networking, databases, and artificial intelligence. Prerequisite: Math 120 with a minimum grade of C, or permission of instructor.

# CS 145. Introduction to Object-Oriented Programming (3); 2, 2 Fa, Sp

This course is an introduction to object oriented programming with software engineering emphasis. Major emphasis is placed on object-oriented programming techniques with focus on encapsulation and simple data structures implemented with classes and arrays. Prerequisite: Math 120 with a minimum grade of C, or ACT math score of 24, or permission of instructor.

## CS 190-490. Independent Study (1 - 4 VC); Fa, Sp

Independent study arranged with an instructor. Prerequisite: Permission of instructor.

# CS 211. Introduction to Object-Oriented COBOL for Business Data Processing (3); Fa, Sp

An introduction to object-oriented COBOL with business applications. Students apply an object-oriented program development process that features a series of steps involving understanding of a problem, formal problem definition, object-oriented and visual design methodologies. Prerequisite: CS 145 with a minimum grade of C for computer science majors and minors; BUS 110 for business majors and minors; or permission of instructor.

## CS 245. Advanced Computer Programming (3); Fa, Sp

Topics include the principles of software engineering, debugging and testing, string processing, internal searching and sorting, simple data structures, such as stacks, queues and lists, recursion, and object-oriented programming. Prerequisite: CS 144 and CS 145 with a minimum grade of C.

# CS 311. Advanced Business Data Processing with COBOL (3); Fa, Sp

Advanced business applications programming. Report generation, file manipulation, building user interfaces, database manipulation through application programs, and use of operating system cells. Prerequisite: MIS 233, CS 211 or CS 318 with minimum grade of C.

#### CS 312. Advanced Fortran Programming (3); 2, 2 Fa, Sp

An advanced treatment of the Fortran programming language. Emphasis will be on advanced techniques for numerical analysis and on the specialized input-output facilities of the language. Prerequisite: Permission of instructor.

## CS 314. The C++ Programming Language (3); 2, 2 Fa, Sp

An in-depth study of the C++ programming language. The significant features of the language will be discussed with a special emphasis on those that relate to object-oriented programming. Prerequisite: None; however, C++ is not considered a good introduction to programming.

# CS 315. Introduction to Java Programming Language (3); 2, 2 Fa, Sp

Introduction to object-oriented programming using Java programming language. Numerous programs will be written to exercise the material covered. Prerequisite: Permission of instructor.

# CS 316. Programming in Lisp and Prolog (3); Fa, Sp

An in-depth study of Lisp and Prolog, the most popular computer programming languages for artificial intelligence applications. Numerous programs will be written to exercise the material covered. Prerequisite: CS 245 or permission of instructor.

#### CS 318. Business Applications Programming (3); Fa, Sp

An introduction to business applications programming in a visual programming environment. Using a visual programming language to solve business application problems.

### CS 324. UNIX Operating System (3); 2, 2 Fa, Sp

Introduction to the UNIX operating system and its interfaces including the file system, shell, editors, pipes, and filters, input/output system, shell programming, program development, and document preparation. Prerequisites: Any programming language or permission of instructor.

# CS 325. Computer Hardware Installation and Maintenance (1); 0, 2 Fa, Sp

A practical investigation of the processes involved in the installation and debugging of complex computer hardware systems including disk controllers, sounds and graphic boards, communication hardware, and various peripherals. Students will work on their own and in teams to build computer systems.

## CS 326. Computer Software Installation (1); 0, 2 Fa, Sp

A practical investigation of the processes involved in the installation of complex computer software including operating systems, communication packages, and Windows-based programs. Students will work on their own and in teams to both prepare computers for installation and install a wide range of computer software. Prerequisite: CS 325 or permission of the instructor.

# CS 327. Hands on UNIX (1); 0, 2 Fa, Sp

C programming language and system programming on UNIX and LINUX operating systems. Prerequisite: CS 145 or permission of instructor.

## CS 328. C and UNIX (3); 3, 0 Fa, Sp

C programming language and system programming on UNIX and LINUX operating systems. Prerequisite: CS 327 or permission of instructor.

#### CS 331. Decision Support Systems (3); Fa, Sp

Study of the theory and several practical techniques of computer based support systems including linear programming, simulation, and decision theory. Prerequisites: CS 245, BUS 210 and knowledge of spreadsheets, or permission of instructor. Cross-listed as: MIS 331.

### CS 332. Advanced Internet (1); Fa, Sp

A continuation to A Gentle Introduction to the Internet focusing on advanced search techniques and methodologies for creating complex web pages. Prerequisite: CS 131 or knowledge of Windows, the internet, and simple HTML.

# CS 341. Machine Architecture and Assembly Language Programming (3); Fa, Sp

An introductory course in computer systems architecture and assembly language programming. Prerequisite: Grade of at least C in CS 245, or permission of instructor.

#### CS 345. Data and File Structures (4); 3, 2 Fa, Sp

Methods of organizing data in memory and on peripheral devices and of accessing this information in an efficient manner. The course gives students experience with searching and sorting, trees, binary search trees, graphs, sequential files, merging files, and file update procedures. Prerequisite: CS 245 with a minimum grade of C.

# CS 350. Programming Seminar I (3); 2, 2 Fa, Sp

The study of advanced programming techniques and technologies involving complex data structures and algorithms, graphical user interfaces, and object-based programming. Emphasis will be placed on the use of sophisticated software development and debugging tools. Prerequisite: CS 245 with a minimum grade of C.

## CS 351. Systems Design and Analysis (3); Fa, Sp

Design and analysis of information systems emphasizing the object approach but including elements of traditional analysis and design modeling. Software development life cycles requirements gathering, decomposition, and formal modeling will be covered. Cross-listed as: MIS 370.

#### CS 380. Computer Modeling and Simulations (3); Fa, Sp

This course introduces computer-based simulation and its applications to engineering and the sciences. The primary goals of this course are to increase students' ability to design useful models of real-world situations and to implement those models so that they can be executed on computers to answer questions about the real world. Prerequisites: CS 245 and MATH 252.

## CS 418. Multimedia Programming (3); 2, 2 Fa, Sp

Introduction to programming multimedia applications. Numerous programs will be written to exercise the material covered. Prerequisite: CS 315 or CS 245 with a minimum grade of C and permission of instructor.

# CS 421. Advanced Data Structures and Algorithm Development (3); Fa, Sp

An investigation of computer data structures with an emphasis on the design and development of efficient algorithms for solving a wide variety of common computing problems. The course also covers the analysis and measurement of the performance of algorithms. Prerequisites: CS 345 and MATH 317 with minimum grades of C.

#### CS 430. Computer Technology in the Classroom (3); Fa, Sp

This course acts as the culminating experience for the computer science side of the major in math and computer science for the secondary school teachers. Students will develop their own principles for the proper use of computer-based technology in the classroom and then work on their own project to explore some state-of-the-art hardware or software in terms of its relevance to the classroom setting. Students register once for the class, should complete the project by the end of the semester and will be given an F if not completed within three years.

## CS 431. Database Management (3); Fa, Sp

The development of the major types of database systems, providing the framework for some experience with at least one database model. Assignments will include accessing, updating, and organizing a database. The use of a relational model will be emphasized along with various database inquiry systems, including natural language-like systems. Prerequisite: CS 245 with a minimum grade of C.

### CS 432. Advanced Database Management (3); Fa, Sp

An investigation of advanced topics in information management and retrieval. The focus of this course may be changed from year to year. Some example topics that may be taught: multimedia databases, building digital libraries, relational or object-oriented database implementation, building database-driven web sites, text and informational retrieval, data mining. Prerequisite: CS 431 with a minimum grade of C, or permission of instructor.

#### CS 436. Human-Computer Interaction (3); Fa, Sp

This course investigates theory and practice in human-computer Interaction. Students will study the impact of human perception and cognition on user interface design and learn to use tools for building graphical use interface (GUIs) and speech interfaces. In addition, each student will design and implement a user interface. Prerequisite: CS 245 or CS 315 with a minimum grade of C.

## CS 442. Computer Systems Architecture (3); Fa, Sp

Acquaints the student with the way a computer works internally. Topics to be covered include basic logic design, data coding, parity generation and detection, number representation and arithmetic, and computer architecture. Prerequisite: CS 341 with a minimum grade of C.

#### CS 443. Operating Systems (3); Fa, Sp

A study of the concepts associated with the modern operating system. Topics will include supervisors, command processors, device drivers, interrupt handlers, queue managers, resource managers, memory allocation schemes, process activation and control, and timesharing or multi-task control. Prerequisite: CS 341 with minimum, grade of C.

## CS 450. Programming Seminar 2 (3); 2, 2 Fa, Sp

A continuation of the study of algorithms important in software development, providing students with experience in designing and building large programs. There will be an emphasis on group projects. Prerequisite: CS 350.

# CS 451. Software Engineering (3); Fa, Sp

A study of the concepts and techniques of software engineering. Emphasis will be on object-oriented design principles, the integration of systems analysis methodologies into software engineering and topics such as formal specifications and proof of program correctness. Prerequisite: CS 350 for hardware/software majors and minors with minimum grade of C; CS 351 for computer information system majors and minors with minimum grade of C; MIS 370 for business majors and minors with minimum grade of C.

## CS 455. Introduction to Computer Graphics (3); Fa, Sp

To provide an introduction to the applications and basic techniques involved in the general field of computer graphics. The course will be a combination of surveying the different hardware and software used in graphic systems and of implementing some basic graphic algorithms. Students will have access to SGI computers. Prerequisite: CS 245 or CS 314 or permission of instructor.

#### CS 456. Internet Services (3); 2, 2 Fa, Sp

An introduction to telecommunications and the Internet. This course introduces the use of Internet for both research and problem solving. Students will be expected to develop tools for enhancing and accessing the Internet.

## CS 457. Computer Networks (3); Fa, Sp

A study of the major concepts of computer networking. Topics discussed will include the Open System Interconnection (OSI) model, data communication networking, computer communications architectures and protocols as well as applications including local area networks (LAN) and integrated services digital network (ISDN). Cross-listed as: MIS 420.

## CS 458. Network Management (3); Fa, Sp

Application of networking concepts related to the management of local area networks. Includes topics related to repair, setup, management, and maintenance of local area networks. Prerequisite: CS 457, MIS 420, or permission of instructor.

### CS 459. Network Security (3); Fa, Sp

This course addresses security issues for TCP/ IP-based and NT networks. Access control and communications security issues will be covered as well as Internet and intranet security. Prerequisite: CS 457, MIS 420, or permission of instructor.

#### CS 460. Wide Area Networks (3); Fa, Sp

Application of networking concepts related to the wide area networks. Includes topics related to nature and use of wide area networks including topologies, software and hardware. Special emphasis on the TCP/IP suite of protocols. Prerequisite: CS 457, MIS 420, or permission of instructor.

## CS 461. Programming Languages (3); Fa, Sp

A comparative study of programming languages and their features. The course develops an understanding of the organization of programming languages, especially the run-time behavior of programs. Students will gain experience with a variety of languages. Prerequisite: CS 245 and one other programming language course.

## CS 462. Compiler Design (3); Fa, Sp

Formal treatment of programming language interpreter, translator, and compiler design concepts. Topics include lexical analysis, parsing, code generation, and code optimization. Emphasis will be on the theoretical aspects of parsing context-free languages, translation specifications, and machine-independent code improvement. Programming projects that demonstrate various concepts will be assigned. Prerequisite: CS 461.

# CS 463. Web Programming (3); Fa, Sp

Introduction to programming on the Internet. Prerequisites: CS 131 and CS 145, the equivalent, or permission of instructor.

## CS 464. Network Programming (3); Fa, Sp

To extend students' knowledge and practice in analysis, design, and programming of computer networks. Prerequisites: CS 245 and 328.

## CS 471. Artificial Intelligence (3); Fa, Sp

A general introduction to the theories and problems involved in the development of computer-based intelligence systems with specific emphasis on knowledge representation and search. The focus will be on artificial intelligence research that provides information for the understanding of human intelligence and on application research in areas such as expert systems, natural language systems, and intelligent computer-aided instruction.

## CS 472. Cognitive Science (3); Fa, Sp

An interdisciplinary investigation of the foundations of human knowledge representation and understanding, the functioning of the human mind, and how these impact on recent computer technologies. Cross-listed as: PSY 472 and PHIL 472.

# CS 473. Artificial Neural Networks (3); Fa, Sp

Basic neurobiology; neural networks; single neuron models; single layer perceptrons; multi-layer perceptrons; radial basis function networks; committee machines; Kohonen networks; applications of neural networks. Prerequisites: CS 245 and MATH 273.

# CS 474. Machine Learning Algorithms (3); Fa, Sp

This course studies different machine learning techniques/paradigms, including decision trees, neural networks, genetic algorithms, Bayesian learning, rule learning, reinforcement learning and ensemble methods. The applications of these techniques to problems in data analysis, prediction, knowledge discovery and data mining are discussed. Prerequisites: CS 245, MATH 320, and MATH 345.

# CS 475. Image Processing (3); Fa, Sp

The course provides mathematical foundations and practical techniques for digital manipulation of images; preprocessing; segmentation; Fourier domain processing; and compression. Prerequisites: CS 245 and MATH 320.

### CS 476. Animation and Visualization (3); Fa, Sp

Computer-based graphical representations, or visualizations, or scientific processes and phenomena have become commonplace in scientific communities. For example, geologists like to visualize plate tectonics, meteorologists like to visualize weather systems, and computer scientists like to visualize algorithms. After briefly surveying the use of visualization in scientific communities, this course pursues an in-depth investigation of its theoretical underpinnings, from the three diverse perspectives; the cognitive perspective, the social perspective, and the cultural perspective. Prerequisites: CS 245 and MATH 320.

#### CS 477. Parallel and Distributed Programming (3); Fa, Sp

This course introduces algorithms and techniques for programming highly parallel computers. Topics covered include trends in parallel and distributed computing; shared address space and message passing architectures; design issues for parallel algorithms; converting sequential algorithms into equivalent parallel algorithms; synchronization and data sharing; improving performance of parallel algorithms; interconnection network topologies, routing, and flow control; latency limits on speedup of algorithms by parallel implementations. Design, coding, performance analysis, debugging and other aspects of parallel algorithm development will be covered. Prerequisites: CS 245 and CS 421.

#### CS 481. Senior Project Design (1); Fa, Sp

The project proposal phase of an integrated senior-year course that combines each student's previous course work into a complete system design project. Prerequisite: CS 350, Senior classification or permission of instructor.

#### CS 482. Senior Project Implementation (3); Fa, Sp

The implementation and presentation phase of an integrated senior-year course that combines each student's previous course work into a complete system design project. Students will sign up for the course once and be given credit upon completion. If the project has not been completed by the end of the semester, the student may be given a PR. If not completed within three years, an F will be given. Prerequisite: CS 481.

## CS 483. Senior Project Presentation (2); Fa, Sp

Students will write a paper on some topic in computer science, possibly in conjunction with their senior project, and submit it to an appropriate publication or conference. Papers not accepted for publication or presentation will be formally presented on campus. Students will sign up for course once and be given credit and a grade upon completion. If it is not completed at the end of the semester, students may be given a PR. If not completed within two years, an F will be given.

# CS 499. Independent Research (1-4 VC); Fa, Sp

Individual research arranged with an instructor. Prerequisite: Permission of instructor.

## Mathematics (MATH), Courses in

# MATH 115. Mathematics for Elementary Teachers 1 (3); 2, 2 Fa, Sp

This course provides the prospective elementary teacher with a conceptual framework for mastering K-8 mathematics. It is the first of a two-course mathematics requirement for elementary education majors. Prerequisite: MATH 100 with a minimum grade of C, or ACT score of 17 or above.

# MATH 120. Intermediate Algebra (3); Fa, Sp

A study of linear equations and inequalities in one variable with applications, integer and rational exponents, the equation of the line, polynomials and rational expressions.

# MATH 130. Mathematics for Elementary Teachers 2 (3); 2, 2 Fa, Sp

The course is designed to provide the prospective elementary teacher with a conceptual framework for mastering K-8 mathematics. It is the second of a two-course mathematics requirement for elementary education majors. Prerequisite: MATH 115 with a minimum grade of C.

### MATH 140. College Algebra (3); Fa, Sp

A study of rational exponents and radicals, complex numbers, quadratic equations, functions including polynomial, rational, exponential and logarithmic functions, systems of equations, matrices and determinants. Prerequisite: MATH 120 with a minimum grade of C, or ACT score of 23 or above. NM Common Course Number: MATH 1113.

#### MATH 145. Introduction to Statistics (3); Fa, Sp

An introduction to the fundamentals of descriptive and inferential statistics. Topics include basic elements of probability, the binominal and the normal distributions, the central limit theorem, construction of confidence intervals, hypothesis testing, and least-squares regression. Applications of these concepts will be discussed.

#### MATH 153. Quantitative Methods of Business (3); Fa, Sp

This course is an introduction to the application of mathematics to business and economics problems. Topics include: a review of linear, quadratic, exponential and logarithmic functions, applications involving simple and compound interest, present and future values of an annuity, demand and supply curves, cost, revenue and profit functions, and an introduction to differential calculus with applications. Prerequisite: MATH 140. Cross-listed as BUS 110.

## MATH 155. Applied Calculus 1 (3); Fa, Sp

A short introduction to calculus not requiring trigonometry and including a review of logarithm and exponential functions. Both the derivative and the integral are introduced. Numerous applications are included. Prerequisite: MATH 140 with a minimum grade of C. NM Common Course Number: MATH 1213.

## MATH 158. Introduction to Business Statistics (3); Fa, Sp

An introduction to probability and statistics along with its application to the resolution of business problems. Topics include descriptive statistics, sampling methods, confidence intervals, hypothesis testing, analysis of variance and correlation, and regression analysis. Prerequisite: MATH 140. Cross-listed as BUS 210.

## MATH 160. Precalculus (5); 4, 2 Fa, Sp

A study of the algebra and trigonometry necessary to thoroughly prepare a student for calculus. Topics include rational exponents, complex numbers, quadratic equations, functions including polynomial, rational, exponential, logarithmic, trigonometric and inverse trigonometric functions, trigonometric equations, linear systems of equations, trigonometric identities, vectors, polar coordinates, applications of algebra and trigonometry, and an introduction to limits. Prerequisites: MATH 140 a grade of C or better.

#### MATH 205. Applied Calculus 2 (3); Fa, Sp

A continuation of MATH 155. Topics include partial derivatives, max and min problems, Lagrange multipliers, brief trigonometry, techniques of integration, differential equations and probability. Prerequisite: MATH 155 with a minimum grade of C.

## MATH 211. Calculus 1 (4); 4, 2 Fa, Sp

A study of differential and integral calculus of functions of one variable. Topics include limits, the product, quotient, and chain rule for differentiation, related rates, Newton's methods, the mean values theorem, optimization, antiderivatives and the definite integral, the fundamental theorem of calculus, integration by substitution, and numerical methods of integration. Prerequisite: MATH 160 with a grade of C or better.

#### MATH 235-435. Selected Topic in Mathematics (1-4 VC); Fa, Sp

Course in a topic or topics in mathematics. May be repeated with change of content.

#### MATH 252. Calculus 2 (4); Fa, Sp

A continuation of MATH 211 Calculus 1. Topics include numerical methods of integration, integration techniques, L'Hopital's rule, improper integrals, applications of integration, sequences, and series. Prerequisite: MATH 211 with a C or better.

#### MATH 273. Calculus 3 (4); Fa, Sp

A study of differential and integral calculus or functions of several variables. Topics include partial derivatives, tangent planes, the chain rule, the gradient, extremes of functions of two variables, Lagrange multipliers, double integration in rectangular and polar coordinates, triple integration in rectangular, cylindrical, and spherical coordinates. Prerequisite: MATH 252 with a C or better.

#### MATH 290-490. Independent Study (1-4 VC); Fa, Sp

Independent study arranged with an instructor. Prerequisite: Permission of instructor.

## MATH 301. Introduction to Mathematical Proofs (3); Fa, Sp

An introduction to reading and writing mathematical proofs. Techniques of proof writing (constructive, contradiction, contrapositive, etc.) will be emphasized over a wide variety of settings (number theory, set theory, introductory analysis, e.g.). Prerequisite: MATH 252 with a minimum grade of C or permission of instructor.

## MATH 317. Discrete Mathematics (4); Fa, Sp

An algorithm-based treatment of sets, matrices, functions, graphs, and relations along with a study of modular arithmetic, enumeration, induction, recursion, algorithm efficiency, Boolean algebra, tees, and graphs. Prerequisite: MATH 140 or MATH 160 with a grade of C or better.

#### MATH 320. Linear Algebra (3); Fa, Sp

An introduction to solutions of linear systems of equations, properties of matrices, nonsingular matrices, determinants, eigenvalues and eigenvectors, similar matrices and Euclidean vector spaces. Prerequisite: MATH 211 with a minimum grade of C.

#### MATH 325. Applied Ordinary Differential Equations (3); Fa, Sp

An introduction to ordinary differential equations. Topics include linear and separable first-order equations, linear second-order equations with constant coefficients, applications of first-order and second-order equations, and Laplace transform methods. Prerequisite: MATH 252 with a minimum grade of C.

## MATH 345. Mathematical Statistics 1 (3); Fa, Sp

A calculus-based introductory course in statistics including probability, discrete and continuous distributions, confidence intervals, p-values and the analysis of decision rules. Prerequisite: MATH 205 or Math 211 with a minimum grade of C.

## MATH 401. Discrete Chaos and Fractals (3); Fa, Sp

An introduction to fractal geometry and discrete dynamics in one dimension. Topics include stability of one-dimensional maps, periodic points, bifurcations, period three orbits, Sharkovsky's theorem, Schwarzian derivative, chaos in one dimension, metric spaces, transitivity, conjugacy, fractals, fractal dimension, Julia and Mandelbrot sets. Prerequisites: MATH 317 and MATH 273 with a minimum grade of C, or permission of instructor.

# MATH 402. Discrete Dynamical Systems and Chaos (3); Fa, Sp

A continuation of MATH 401 in higher dimensions. Topics include discrete linear dynamical systems, orbits, stability, spectral decomposition theorem, affine systems, nonlinear dynamical systems, bounded invariance, global stability of fixed points, sinks, repellers and saddles, bifurcation, attractors, Li-Yorke chaos, and more on fractal dimension. Prerequisites: MATH 320 and MATH 401 with a minimum grade of "C".

## MATH 404. Introduction to Numerical Analysis (3); Fa, Sp

An introduction to numerical methods for determining the roots of nonlinear equations, numerical interpolation and integration, and numerical methods for approximating solutions to ordinary differential equations. Prerequisites: MATH 320 and MATH 325 with a minimum grade of C.

# MATH 406. College Geometry (4); 3, 2 Fa, Sp

A rigorous treatment of the elements of Euclidean geometry. Prerequisite: MATH 317 with a grade of C or better.

#### MATH 407. Mathematical Models (3); Fa, Sp

An overview of model construction with many different examples. The course includes differential equations, Markov chains, linear programming, zero sum games, graphs, and queues. Prerequisites: MATH 320 and MATH 325 with a minimum grade of C.

#### MATH 410. Optimization Techniques (3); Fa, Sp

The study of unconstrained and constrained optimization computational algorithms, including both linear and nonlinear methods. Prerequisite: Math 320 and Math 273 with a minimum grade of C.

## MATH 415. Introduction to Cryptography (3); Fa, Sp

An introductory course on the mathematics of cryptography. Topics include column transposition, monoalphabetic and polyalphabetic ciphers, the one-time pad, and the Hill cipher. Prerequisite: MATH 317 with a grade of C or better.

## MATH 417. Mathematical Statistics 2 (3); Fa, Sp

A continuation of Math 345 covering the topics of contingency tables, multiple regression, analysis of variance, and other special topics in Mathematical Statistics. Prerequisite: MATH 345 with a minimum grade of C.

### MATH 419. Modern Methods of Cryptography (3); Fa, Sp

A study of modern methods of cryptography and their applications. Topics include the data encryption standard, the RSA publickey cryptosystem, and digital signatures. Prerequisite: MATH 317-415 with a grade of C or better.

### MATH 421. Applied Abstract Algebra (3); Fa, Sp

An introduction to abstract algebra and its applications to error-correction codes, cryptography, polynomial algorithms and fast Fourier transforms. Prerequisites: MATH 317 and MATH 320.

#### MATH 425. Introduction to Real Analysis (3); Fa, Sp

This course gives students a solid background in theoretical undergraduate analysis with the theory and deeper understanding of calculus stressed. Students are introduced to proofs that motivate them toward clear thought and understanding of limits, continuity, differentiation, and series. This provides a rigorous training in mathematical thinking. Prerequisites: MATH 301, MATH 320, and MATH 273 with a minimum grade of C.

# MATH 426. Introduction to Complex Variable (3); Fa, Sp

An introduction to the properties of analytic functions. Topics include mappings, limits, continuity, differentiation, Cauchy-Riemann equations, harmonic functions, multi-valued functions and branch points, definite integrals and the Cauchy-Goursat theorem, Cauchy integral formula, maximum modulus theorem, Liouville's theorem, fundamental theorem of algebra, Taylor and Laurent series, residues and poles. Prerequisite: MATH 425 with a minimum grade of C.

# MATH 430. Mathematical Problem Solving (4); 3, 2 Fa, Sp

A study of problem-solving techniques and the applications of such techniques to challenging problems in mathematics. In addition, students will be required to demonstrate mastery of the fundamentals of undergraduate mathematics by passing a series of examinations on college algebra, trigonometry, calculus, and linear algebra. Prerequisites: MATH 273 and MATH 320 with a grade of C or better.

# MATH 444. Matrix Theory with Applications (3); Fa, Sp

A study of advanced topics in linear algebra and the theory of matrices with emphasis on computer-based applications. Similarity, characteristic and minimal polynomials, diagonalizable matrices and symmetric matrices, Jordan canonical form, vector and matrix norms, spectral radius, stable matrices, functions of matrices, non-negative matrices and Perron- Frobenius theory, differential equations, stability, location of eigenvalues, Rayleigh quotient and Gersgorin's theorem. Prerequisites: MATH 317, MATH 320, and MATH 325 with a minimum grade of C.

#### MATH 450. Seminar in Mathematics (1-4 VC); Fa, Sp

Seminar course in a topic or topics in mathematics.

### MATH 460. Applied Multivariate Statistics 1 (3); Fa, Sp

Introductory matrix analysis for statistics, multivariate distributions, multiple regression, multiple analysis of variance and covariance, principal component analysis, and canonical correlations. Prerequisite: MATH 320 with a minimum grade of C.

## MATH 461. Applied Multivariate Statistics 2 (3); Fa, Sp

A continuation of MATH 460, including discriminant analysis, factor analysis, categorical techniques, distance concepts, and cluster analysis. Prerequisite: Math 460 with a minimum grade of C.

# MATH 499. Independent Research (1 - 4 VC); Fa, Sp

Individual research arranged with an instructor. Prerequisite: Permission of instructor.

# Physics (PHYS), Courses in

#### PHYS 105. Elementary Physics (4); 3, 2 Fa

A survey of physics for technical and general education students. Prerequisite: Math 100. Applies to NM Common Core.

#### PHYS 110. Survey of Astronomy (4); 3, 2 Fa, Sp

A course designed to introduce the student to the concepts of modern-day astronomy. Topics to be investigated include the sun, planets, meteors, asteroids, comets, stars and star formation, galaxies and galaxy formation, black holes and quasars, cosmology, and cosmogony. NM Common Course Number: ASTR 1113.

# PHYS 151. Algebra Physics 1 (4); 3, 3, 1 recitation Fa

A noncalculus-based introduction to physics. Does not apply for credit in degree requirements for engineering or chemistry majors. Corequisite: Math 140. NM Common Course Number: PHYS 1114.

### PHYS 152. Algebra Physics 2 (4); 3, 3, 1 recitation Sp

A continuation of PHYS 151. PHYS 151 and PHYS 152 together provide a unit of introductory physics that is particularly suitable for biology and pre-medical students. Prerequisite: PHYS 151. NM Common Course Number: PHYS 1124.

#### PHYS 235 - 435. Selected Topic in Physics (1-4 VC); Fa, Sp

Course in topic or topics in physics. May be repeated with change of content.

## PHYS 291. Calculus Physics 1 (5); 4, 3, 1 recitation, Fa

This is the calculus-based introductory physics course for physics, chemistry, and engineering majors. The course covers kinematics, classical dynamics, and thermodynamics. Corequisite: MATH 211. NM Common Course Number: PHYS 1214.

# PHYS 292. Calculus Physics 2 (5); 4, 3, 1 recitation, Sp

This is the second semester of introductory physics course for physics, chemistry, and engineering majors. The course covers electricity and magnetism, simple circuits, optics and introduction to relativity theory. Prerequisite: PHYS 291. Corequisite: Math 252. NM Common Course Number: PHYS 1224.

## PHYS 300. Astrophysics (4); 3, 3 Fa, Sp

A study of celestial mechanics; the earth-moon system; the sun, planets and satellites, asteroids, stars and galaxies. Prerequisite: PHYS 292.

## PHYS 305. Intro to Computational Physics (4); 3, 3 Fa, Sp

Introduction to numerical techniques for solving physics problems. Includes an introduction to programming and computer graphics. Prerequisite: PHYS 292, MATH 252. CS 145 is strongly recommended.

#### PHYS 311. Mechanics (3); 3, 1 recitation, Fa, Sp

Review of Newtonian mechanics of point particle systems, including linear and coupled oscillators; central force motion; rigid body motion; Lagrange's equations. Prerequisite: PHYS 292 and corequisite MATH 325.

## PHYS 337. Mathematical Methods in Physics (4); Fa, Sp

Vector analysis, matrices, calculus of variations, complex variables, orthogonal functions and Fourier series, and ordinary and partial differential equations with applications to physical problems. Prerequisite: MATH 325.

### PHYS 361. Modern Physics & Relativity (3); 3, 3 recitation, Fa, Sp

Introduction to post-Newtonian physics. Through examples from atomic physics, particle scattering and black-body radiation, the student is introduced to concepts from quantum mechanics such as wave-particle duality and energy quantization. The student continues the study of post-Newtonian physics with special relativistic dynamics and kinematics. Prerequisite: PHYS 292 and corequisite MATH 273.

# PHYS 380. Advanced Laboratory 1 (4); 2, 4 Fa, Sp

Quantitative laboratory experiments in topics associated with classical and modern physics. Prerequisite: PHYS 292.

# PHYS 381. Advanced Laboratory 2 (3); 1, 4 Fa, Sp

Continuation of PHYS 380. Quantitative laboratory experiments in topics associated with classical and modern physics. Prerequisite: PHYS 380.

#### PHYS 390 - 490. Independent Study (1-4 VC); Fa, Sp

Independent study arranged with an instructor. Prerequisite: Permission of instructor.

#### PHYS 402. Statistical Mechanics (3); Fa, Sp

Mechanical theory of the thermodynamics of gases, including ensembles and distributions; connection between statistical and thermodynamic quantities. Prerequisite: PHYS 292 and MATH 325.

### PHYS 421. Electricity and Magnetism 1 (4); Fa, Sp

Electrostatics, dielectrics, boundary value problems, magnetism, Maxwell's equations. Prerequisite: PHYS 292 and MATH 325.

#### PHYS 422. Electricity and Magnetism 2 (3); Fa, Sp

Continuation of PHYs 421, with an emphasis on applications. Prerequisite: PHYS 421.

#### PHYS 430. Computational Fluid Dynamics (5); Fa, Sp

This course presents a review of numerical methods, introduces the basic equations of fluid dynamics, explores computational methods for and limitations of these solutions, and provides an opportunity to computationally solve fluid dynamical problems having applications in science and engineering. Prerequisites: PHYS 337.

# PHYS 450. Seminar in Physics (1-4 VC); Fa, Sp

Seminar course in a topic or topics in physics.

## PHYS 453. Optics and Modern Optics (4); Fa, Sp

This course is offered to students in the physical sciences and engineering who will be exposed to optics in such diverse areas as optical imaging, communications, spectroscopy and light. Prerequisite: PHYS 292.

# PHYS 455. Physics Research Seminar (1); Fa, Sp

Upper-division students participating in a physics research project will present one or two 30-minute presentations on their project to faculty members and other undergraduate students registered in the course. In addition, the students will participate in the discussion evolving from other student presentations. Cross-listed as: CHEM 455.

# PHYS 461. Quantum Mechanics 1 (4); Fa, Sp

The algebra of quantum mechanics; the Hamiltonian; examples in a finite basis; the Schrödinger equation; examples in one and three dimensions. Prerequisite: PHYS 361 and MATH 325.

#### PHYS 462. Quantum Mechanics 2 (3); Fa, Sp

Continuation of PHYS 461, with an emphasis on applications. Prerequisite: PHYS 461.

#### PHYS 468. Solid State Physics (4); Fa, Sp

Mechanical and thermal properties of solids, the electron theory of metals, and band theory. Prerequisite: PHYS 461.

## PHYS 499. Senior Project (1-3 VC); Fa, Sp

Individual research arranged with an instructor. Prerequisite: Permission of instructor.

## **Department of English**

Dr. Donna Woodford-Gormley, Department Chair

Douglas Hall, Room DH 144 505.454.3253 FAX: 505.454.3389 E-mail: dwoodford@nmhu.edu

#### Mission of the Department of English

The mission of the Department of English and Philosophy is to provide quality education leading to intellectual growth and professional success. Majors and minors are offered in English and professional writing. The program is committed to preserving, interpreting, and promoting the unique multicultural heritage of the region.

The undergraduate program in the Department of English and Philosophy endeavors to develop fluency in the use of English through critical, creative, and technical writing. The departmental curriculum is designed to meet a variety of interests: literature, creative writing, linguistics, rhetoric, cultural studies, mythology, and professional writing. Study of English prepares students for careers in teaching, publishing, arts, journalism, technical writing, business, law, and government.

#### **Faculty**

Helen Blythe, Ph.D.
Peter Buchanan, Ph.D.
Lauren Fath, Ph.D.
Juan Gallegos, Ph.D.
Brandon Kempner, Ph.D.
Jason McIntosh, Ph.D.
Tyler Mills, Ph.D.
Eddie Tafoya, Ph.D.
Benjamin Villarreal ABD
Stephen Weatherburn, MA
Donna Woodford-Gormley, Ph.D.

#### **Resources and Facilities**

The Department of English is located in Douglas Hall, a renovated building that houses classrooms, the Writing Center, the Language Learning Center, and offices for faculty and graduate assistants in the humanities.

The Department of English provides the services of the Writing Center to students in the English composition sequence and in other undergraduate university courses. The facility offers individual tutoring and small group work. The Writing Center offers one-on-one instruction in all stages of the writing process, including developing ideas, writing with appropriate organization and style, and accurately citing sources.

The English Department houses a literary journal, *The New Mexico Review*, which publishes poetry, fiction, and essays. The department also sponsors a chapter of the international English honor society, Sigma Tau Delta, as well as Bindings, the English club.

#### Overview

The Department of English offers intensive study of literature, writing, linguistics, mythology, and cultural studies. The program core for the major introduces students to a variety of the subdisciplines of English, including literature, creative writing, linguistics, literacy, composition, and criticism, all of which provide foundational knowledge of English studies while allowing students to discover the aspect of English they want to explore in their elective courses. The English major, in conjunction with the School of Education, prepares students for careers as secondary school English teachers. The department also offers a pre-professional major for those interested in preparing for graduate studies in law and other fields, or for careers in professional writing, advertising, or publishing.

Since the English major requires only 39 credit hours for completion, students are encouraged to double-major, selecting another major appropriate to their interests. Many English majors have found professional success by

combining their study of English with majors in media arts, education, business, history, criminal justice, psychology, etc.

English minors have two options: a general minor with a literary emphasis or a minor in writing.

All English majors must consult with their adviser in English prior to registration each term. During the first meeting, the adviser and student will develop a long-term plan for completing the program.

### **English Education Track**

Students preparing for careers as high school English teachers must major in English (in the English education track), minor in secondary education, and complete course work required for state licensure. They must consult with two faculty advisers, one in the English department and one from the School of Education. Furthermore, students in this track must take the New Mexico Teacher Assessment exam between their sophomore and junior year and must plan to have all coursework in English completed before the start of their final semester, which will be devoted to field preparation.

#### **Pre-Professional Track**

Students interested in majoring in English as preparation for professional careers in such areas as business, government, law, or administration should concentrate on courses in writing, and linguistics. Those specifically interested in law school should also take courses in philosophy and logic. This track is not intended for students pursuing teaching careers. The pre-professional track is recommended for students double-majoring in English and a field with heavy course requirements.

## **English**

### Major in English (BA)

# Traditional, English Education, and Pre-Professional Tracks

In order to earn a BA in English, students are required to complete at least 13, three-credit courses in English beyond the composition sequence (ENGL106, 111, 112): a total of 39 credit hours. Students must also satisfy the following general distribution requirements:

# Required core: 12 credit hours

ENGL 294 One American Literature Survey (3)

OR

ENGL 295 American Literature, 1865 to the Present (3)

(However, both courses are recommended)

ENGL 290 British Literature to 1700 (3)

ENGL 291 British Literature 1700 to Present (3)

ENGL 302\* Literary Theory (3)

\*To be taken in the junior year. Students in the pre-professional track may substitute any course in rhetoric, linguistics, or writing

# Additional requirements: 9 credit hours

At least one course in grammar or linguistics: 3 credit hours

At least one course in advanced composition, rhetoric, or literacy: 3

At least one course in creative writing: 3 credit hours

At least one course from the following: 3 credit hours

ENGL 421 Chaucer (3)

ENGL 422 Shakespeare (3)

ENGL 423 Milton (3)

# Other requirements: 6 credit hours

ENGL 411 Major American Writers (3)

ENGL 412 Major British Writers (3)

#### **Electives:**

Choose 3 courses for 9 credit hours.

Students majoring in English and minoring in secondary education must take:

ENGL 317 Introduction to Modern Grammar (3)

ENGL 350 Methods of Teaching Reading and Writing (3)

The remaining courses (for a total of 39 credit hours) are program electives.

Major Total: 39 credit hours Core Total: 35 credit hour Extended core: 5 credit hours Minor: 20 credit hours minimum\* Proficiency/electives to 120: 21 credit hours

Total for degree: 120 credit hours\*

\* A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional credit hours may be required to meet the 120 credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

## Minor in English

## Required courses: 9 credit hours

ENGL 317 Introduction to Modern Grammar (3)

Choose two courses from the following:

ENGL 290 British Literature to 1700 (3)

ENGL 291 British Literature 1700 to Present (3)

ENGL 294 American Literature to 1865 (3)

ENGL 295 American Literature 1865 to Present (3)

## Electives: 12 credit hours Minor Total: 21 credit hours

# **Minor in English Writing**

#### Required courses: 12 credit hours

ENGL 317 Introduction to Modern Grammar (3)

ENGL 365 Nonfiction Prose (3)

ENGL 367 Technical Writing (3)

ENGL 443 Sociolinguistics (3)

OR

ENGL 485 Stylistics (3)

#### Electives: 9 credit hours

#### Choose three courses from the following:

ENGL 214 Autobiography (3)

ENGL 262 Introduction to Creative Writing (3)

ENGL 305 Advanced Composition (3)

ENGL 307 Writing as Advocacy (3)

ENGL 309 A History of Writing (3)

ENGL 310 Creative Nonfiction (3)

ENGL 350 Methods of Teaching Reading and Writing (3)

ENGL 362 Creative Writing: Poetry (3)

ENGL 364 Creative Writing: Fiction (3)

ENGL 400 Creative Writing: Experimental Fiction (3)

ENGL 401 Creative Writing: Advanced Poetry (3)

ENGL 441 History of the English Language (3)

ENGL 2/434 Practicum (1-4)

ENGL 463 Rhetoric & Reality (3)

ENGL 464 Women & Rhetoric (3)

Minor Total: 21 credit hours

## English (ENGL), Courses in

Note: Any 100-, 200- or 300-level literature course will satisfy the core requirement in Area V: Humanities and Fine Arts. Courses marked with an asterisk (\*) satisfy the extended core literature requirement.

## ENGL 106. English Reading and Writing for Inquiry (3); Fa, Sp

This course offers instruction and practice in college-level critical reading and

writing skills. It is designed to give students experience and practice developing academic inquiry needed for much of their coursework.

### ENGL 111. Freshman Composition I (3); Fa, Sp

Students will be required to write a number of essays demonstrating mastery of a variety of forms of organization. Prerequisite: 17 or higher on the ACT English Usage Test or completion of ENGL 106 with a grade of C or better. Students may also test out through the ETS Advanced Placement exam. See the Office of the Registrar for details. NM Common Core Number: ENGL 1113.

## ENGL 112. Freshman Composition II (3); Fa, Sp

Introduction to the analysis and interpretation of textual sources and the writing of documented papers, emphasizing use of secondary sources, bibliography, organization of material, and effective presentation of research findings. A grade of C or better in ENGL 111 is required or 29 or higher on the ACT English Usage Test. Students may also test out through the CLEP exam. A grade of C or better is required in this course. See the Office of the Registrar for details. NM Common Core Number: ENGL 1123.

#### ENGL 135 - 435. Selected Topic in English (1-4 VC); Variable

Course in a topic or topics in English. May be repeated with change of content. Prerequisite: ENGL 111.

#### ENGL 151. Introduction to Drama (3)\*; Variable

Close reading and analysis of drama selected from world literature of all ages. Prerequisite: ENGL 106, passed with a grade of C or better.

## ENGL 152. Introduction to Fiction (3)\*; Fa, Sp

Close reading and analysis of prose fiction selected from world literature of all ages. Prerequisite: ENGL 106, passed with a grade of C or better.

#### ENGL 202. Fairy Tales (3)\*; Variable

Fairy tales examined for their literary and cultural significance. Prerequisite: ENGL 111.

# ENGL 214. Autobiography, Personal Essay and Memoir (3)\*; Variable

This is a survey course in the close reading, analysis, and practice of personal narrative. The course covers a wide variety of autobiographical writing from the 19th century to the present. Prerequisite: ENGL 111.

## ENGL 234 - 434. Practicum (1-4 VC); Variable

Students gain practical knowledge through internships in such areas as tutoring, editing, public relations, and feature writing. Prerequisite: ENGL 111.

# ENGL 251. Topics in Drama (3); Variable

This course is an-depth study of a major playwright, sub-genre, or tradition of theater from different periods and locations. Possible topics include: Medieval Drama; Twentieth-Century European Drama; Theater of the Absurd; the British Theater Tradition; American Drama; Restoration Drama; others. Prerequisite: ENGL 112.

#### ENGL 252. Introduction to Literacy Studies (3); Variable

The popular understanding of literacy often limits it to reading and writing skills taught in formal educational institutions. Scholars of literacy studies, however, view this model of literacy as overly simplified and devoid of context. In English 252, students will expand the definition of literacy beyond the classroom by interrogating the context within which literacy activities occur, while examining the relationships among community, identity, ideology, and language. This course will explore a number of approaches scholars have taken to theorizing literacy. Prerequisite: ENGL 112.

#### ENGL 254. Introduction to Rhetoric (3); Variable

English 254 is an introduction to the theory and history of rhetoric. Define by Aristotle as "the faculty of discovering in any particular case all of the available means of persuasion," rhetoric has expanded to include the study of how people consciously communicate within the parameters of a given situation. By employing rhetorical theories to modern, public contexts, students will

develop the tools and vocabulary for engaging the social world in a critical manner. Prerequisites: ENGL 112.

### ENGL 262. Introduction to Creative Writing (3); Alt, Fa, Odd

This course will provide students with introductions to various types of writing including poetry, fiction, creative nonfiction, and playwriting. May be repeated with change of content. Prerequisite: ENGL 111.

#### ENGL 272. Introduction to Poetry (3)\*; Variable

A survey course in the close reading and analysis of poetry. Class discussions are lively and engaging, encouraging students to take critical pleasure in poetry. The course covers a variety of United States and world poets and poetic themes. Prerequisite: ENGL 111.

## ENGL 274. Introduction to Shakespeare (3); Variable

This course will introduce students to some of Shakespeare's better-known plays, the time and culture in which they were written, and the ways they have been and are still performed. Prerequisite: ENGL 112.

# **ENGL 277. Introduction to Popular Culture (3)\*; Variable**

Survey of popular literary genres (romances, action–adventure) as well as film and television. Focuses on the interrelationship between myth, culture, politics, and the culture industry. Prerequisite: ENGL 111.

#### **ENGL 278. Science Fiction (3)\*; Variable**

Close reading and analysis of major science fiction works. Explores science fiction as cultural metaphor and modern myth. Prerequisite: ENGL 111.

#### ENGL 279. Horror Literature (3)\*; Variable

A study of the folk origins of the horror story and its manifestations in mainstream and genre fiction and film. Prerequisite: ENGL 111.

## ENGL 281. Norse Mythology (3)\*; Variable

Norse mythology and sagas examined for their literary and cultural significance. Prerequisite: ENGL 111.

## ENGL 282. Classical Mythology (3)\*; Variable

Greek and Roman myths examined for their literary and cultural significance. Prerequisite: ENGL 111.

#### ENGL 283. Celtic Mythology (3)\*; Variable

Celtic myths and sagas of medieval Ireland and Wales, examined for their literary and cultural significance. Prerequisite: ENGL 111.

### ENGL 284. Twentieth-Century Literature (3)\*; Variable

A study of modern sensibility as manifested in contemporary works written in English and English translation. Prerequisite: ENGL 111.

## ENGL 290. British Literature to 1700 (3)\*; Fa

British literature from the early Middle Ages through the late Renaissance, including Beowulf, Sir Gawain and the Green Knight, and selected works of Chaucer, Spenser, Shakespeare, Milton and others. Prerequisite: ENGL 112. NM Common Core Number: ENGL 2413.

### ENGL 291. British Literature from 1700 to Present (3)\*; Sp

A study of representative authors of the Neoclassic, Romantic, Victorian, and modern British periods. Prerequisite: ENGL 112. NM Common Core Number: ENGL 2423.

## ENGL 292. World Literature to 1700 (3)\*; Variable

Readings in world literature from the Ancient World through the comparative literature of the European Renaissance. This course excludes British and American literature. Prerequisite: ENGL 112.

#### ENGL 293. World Literature from 1700 to Modern (3)\*; Variable

Literature from the European Neo-classic period through the modern schools of Eastern and Western Literature. This course excludes British and American literature. Prerequisite: ENGL 112.

# ENGL 294. American Literature to 1865 (3)\*; Fa

A study of major American works that exemplify the changing philosophies and literary trends of Colonial America, the Early Republic, and the American Renaissance. Emphasis on changing views of humankind and God and on the literary treatment of the elusive "American Dream." Prerequisite: ENGL 112. NM Common Core Number: ENGL 2513.

#### ENGL 295. American Literature, 1865 to the Present (3)\*; Sp

The development of American poetry and fiction from Mark Twain and the rise of realism to the present. Emphasis on the major literary schools and authors of the period. Prerequisite: ENGL 112. NM Common Core Number: ENGL 2523.

#### ENGL 302. Literary Theory (3); Alt, Sp, Even

An introduction to literary terms and to theories of literature from Plato to the present. Application to these theories to various works, ancient and modern. Prerequisite: Two English courses beyond ENGL 112.

#### **ENGL 305. Advanced Composition (3); Variable**

This course examines the relationship between reading, writing, and thinking, and how the raft of writing can strengthen all three. Students will study different authors' perspectives on an issue and develop their own written responses, crafted through sustained revision. Prerequisite: ENGL 112.

#### ENGL 307. Writing as Advocacy (3); Variable

Students study writing as advocacy, or writings as social action taken on behalf of others. Our primary conceptual tool will be the literacy event, which foregrounds the situation, context, and the actors through which the consumption or production of print plays a role. Students select an individual, class of people, or organization for which to advocate, then research and create ways to act on their behalf. Prerequisite: ENGL 112.

#### ENGL 309. A History of Writing (3); Variable

A cross-cultural study of writing and writing systems; the development of script, and the social contexts of use. Prerequisite: ENGL 112.

#### ENGL 310. Creative Nonfiction Workshop (3); Alt, Fa, Even

This is a workshop class in creative nonfiction. Students will read a variety of creative nonfiction texts and produce original creative nonfiction writing. Prerequisite: ENGL 112.

# ENGL 312. Stand-Up comedy as Literature (3)\*; Variable

An in-depth examination of stand-up comedy in literature, how this most American of literary forms reveals and influences the American ethos, and the changes the art form has undergone since its inception in the late nineteenth century. Prerequisite: ENGL 112.

#### ENGL 314. Women in Literature (3)\*; Variable

Study of literary works chosen to demonstrate the historical and contemporary representation of women in poetry and fiction. Prerequisite: ENGL 112.

# ENGL 315. Native American Women's Literature: Voices and Visions (3) \*; Variable

Study and exploration of women's voices in contemporary Native American literature. Prerequisite: ENGL 112.

#### ENGL 317. Introduction to Modern Grammar (3); Fa

This class provides an introduction to the components of language-phonology, morphology, syntax, and semantics – as well as various grammar models. Topics also include the relations between language and social contexts, and language and writing.

#### ENGL 318. Chicano/a Literature (3)\*; Variable

A survey examining the major texts of the Chicano/a experience, including traditional, community-centered folktales and corridos, contemporary prose, poetry, drama, and nonfiction, supported by theoretical readings. Prerequisite: ENGL 112.

# ENGL 325. The American Novel (3)\*; Variable

An in-depth study of classic American novels from the nineteenth century to the present day. Prerequisites: ENGL 111 and 112.

## ENGL 328. The Historical Gothic (3)\*; Variable

This course looks at the rise of gothic horror literature in the late-18th and 19th centuries, examining the historical, aesthetic, and social contexts that produced such works.

#### ENGL 341. The Bible as Literature: Old Testament (3) \*; Variable

Study of Old Testament literature, emphasizing techniques and conventions of biblical narrative and poetry. Prerequisite: ENGL 112.

#### ENGL 342. The Bible as Literature: New Testament (3) \*; Variable

Study of New Testament literature, focusing on the various literary arts of Gospels, Acts, Epistles, and Revelation. Prerequisite: ENGL 112.

## ENGL 343. Eastern Spiritual Classics (3) \*; Variable

Literary aspects of the Eastern spiritual classics--Hindu, Buddhist, Taoist, Zen, Islamic, Sufi, Kabbalistic, and Hassidic. Prerequisite: ENGL 112.

# **ENGL 350. Methods of Teaching Reading and Writing (3); Variable**

Provides a review of traditional and current methods of teaching reading and writing. Students examine current reading and writing theory and research

with an eye toward the implications for pedagogy.

### ENGL 362. Creative Writing: Poetry (3); Alt, Sp, Odd

An intensive and creative course in the craft of poetry. Course readings will include selected works and poetics. Objectives include the recognition and imitation of selected techniques and the writing of original works. Prerequisites: ENGL 112 and ENGL 272.

### ENGL 364. Creative Writing: Fiction (3); Alt, Fa, Odd

An intensive study of selected works of short fiction with emphasis on the components of this literary form; writing of original works in the form. Prerequisite: ENGL 112.

# ENGL 365. Nonfiction Prose (3)\*; Alt, Sp, Even

An introduction to the reading and analysis of creative nonfiction essays: biography, travel, nature, social commentary, the urban scene, sports, and the domestic and fine arts. Prerequisite: ENGL 112.

# ENGL 367. Technical Writing (3); Fa, Sp, Su

Students develop the principles of scientific, professional, and technical writing. Major assignments include formal proposals and reports. Minor assignments include resumes, short reports, instructions, correspondence, and memoranda. Stress is placed on developing a clear and concise writing style. Prerequisite: ENGL 112.

#### ENGL 381. African-American Writers (3); Variable

A study of the scope, excellence, and distinctive qualities of the writing of African-Americans in the United States. Prerequisite: ENGL 112.

# ENGL 400. Creative Writing: Experimental Fiction (3); Alt, Sp, Odd

Advanced fiction writing with an emphasis on experimental techniques, styles, and approaches, including stream-of-consciousness and fictive-autobiography. The reading component of this course will include theoretical and creative texts. May be repeated with change of content. Prerequisite: ENGL 112.

# ENGL 401. Creative Writing: Advanced Poetry (3); Alt, Fa, Even

A writing workshop for experienced poets. Students will write original poems and read 20th century poetry and poetics from the United States and around the world. May be repeated with change of content. Prerequisite: ENGL 112.

### ENGL 405. Gender and the Politics of Literacy (3); Variable

This course explores the historical connections between literacy on the one hand and reason/emotion on the other, focusing on how each has been historically gendered. The course begins with a history of style and how metaphors of gender have been used to describe writing. It continues with a gendered study of how cultural beliefs about literacy shape our conceptions of the individual, citizen, aesthetic, and rationality. Prerequisite: ENGL 112.

## ENGL 411. Major American Writers (3); Sp

In-depth study of a major author or authors, school, genre, and tradition in American literature. Possible topics: literature of the American West; American modernism; American poetry. May be repeated with change of content. Prerequisite: Junior classification.

# ENGL 412. Major British Writers (3); Sp

In-depth study of a major author or authors, school, genre, or tradition of British literature. Possible topics: Byron and the Satanic School, The British moderns (Lawrence, Woolf, Joyce). May be repeated with change of content. Prerequisite: Junior classification.

#### ENGL 413. Major World Writers (3); Variable

In-depth study of a major author or authors, school, genre, or tradition of world literature, generally excluding British and American works. May be repeated with change of content. Possible topics: Kafka and the Kafkaesque, Ancient Erotic Literature, Post-Colonial African Fiction, The Epic. May be repeated with change of content. Prerequisite: Junior classification.

### ENGL 414. Literary Realism (3); Variable

Covers the international development of the theory and practice of the realist novel. Prerequisite: Junior classification.

#### ENGL 421. Chaucer (3); Variable

This course is an intensive study of The Canterbury Tales and selected minor works. Prerequisite: Junior classification.

## ENGL 422. Shakespeare (3); Fa

This course is an intensive study of a group of Shakespeare's plays, such as comedies, tragedies, Greek plays, English history plays, or late romances. May be repeated with a change of content. Prerequisite: Junior classification.

#### ENGL 423. Milton (3); Variable

This course is an intensive study of Paradise Lost and selected minor works. Prerequisite: Junior classification.

#### ENGL 434. Practicum (1-4 VC); Variable

Students gain practical knowledge in such areas as tutoring, editing, public relations, and feature writing. Prerequisite: Junior classification.

#### ENGL 441. History of the English Language (3); Sp

Investigation of the origin of modern English, with a study of the evolution of English sounds, inflections, vocabulary, and syntax, from earliest times to the present. Prerequisite: Junior classification.

# ENGL 442. Contemporary English Linguistics (3); Variable

An examination of the structures, processes, and functions of elements of the English language, with particular attention to their description in the theories of cognitive grammar.

## ENGL 443. Sociolinguistics (3); Alt, Sp, Odd

This course is an examination of language use and variation. Topics to be addressed include sociolinguistic theory, research methods and application; diglossia and multilingualism; pidgins and creoles; patterns of discourse; forms of addresses and reference; sociolinguistics of writing. Prerequisites: Junior classification and ENGL 317.

#### ENGL 445. Cultural Criticism and Theory (3); Variable

Selections from advanced cultural criticism from the Birmingham school and its contemporary derivatives. Authors to be studied will include Foucault, Hall, Hebdige, Barthes, and others. Emphasis will be on the study contemporary culture from a theoretical perspective. Prerequisite: Junior classification.

#### ENGL 450. Seminar in English (1-4 VC); Variable

Seminar course in a topic or topics in English. Possible topics: literature of exploration, existentialism, literature and the law. Prerequisite: Junior classification.

# ENGL 463. Rhetoric and Reality (3); Variable

A survey of rhetorical writings and theory from classical times to the present. Prerequisite: Junior classification.

## ENGL 464. Women and Rhetoric (3); Variable

Provides a historical and thematic overview of rhetorical writings by and about women. Prerequisite: Junior classification.

### ENGL 482. Literature of the Southwest (3); Variable

An examination of the tricultural literary heritage of the southwestern United States. Readings include journals and diaries of the Territorial Period as well as imaginative works by novelists of the Southwest. Emphasis on cultural traditions that shaped the literature. Prerequisite: Junior classification.

#### ENGL 485. Stylistics (3); Variable

An examination of linguistic principles specifically as they apply to the analysis of written texts. Students will learn to make the kind of textual observations needed to reveal the stylistic traits and tendencies in the language of literature. Prerequisite: Junior classification.

## ENGL 490. Senior Readings (1-4 VC); Variable

Primarily intended for English majors. Individual study of selected author(s) or topic(s) arranged with an instructor. Prerequisites: Junior classification and permission of instructor.

#### ENGL 491. Arthurian Literature (3); Variable

This course examines literature generated by the legends of King Arthur and his court, studied in a variety of European texts from the Middle Ages. Prerequisite: Junior classification.

## ENGL 499. Supervised Research (1-4 VC); Variable

Primarily intended for English majors. Individual research project arranged with an instructor. Prerequisites: Junior classification and permission of instructor.

#### Philosophy (PHIL), Courses in

#### PHIL 100. Introduction to Philosophy (3); Variable

The nature of philosophical inquiry; classical and contemporary solutions to major philosophical problems; ethics; philosophy of religion; philosophy of science; basic principles of logic and critical thinking. NM Common Core Number: PHIL 1113.

#### PHIL 201. Ancient and Medieval Philosophy (3); Variable

A survey of ancient and medieval philosophy including but not limited to the Pre-Socratics, Socrates, Plato, Aristotle, Augustine, and Aquinas.

#### PHIL 203. Modern Philosophy (3); Variable

Survey of the philosophies of Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant.

## PHIL 211. Formal Logic (3); Variable

Contemporary logical analysis.

## **Department of Exercise and Sport Sciences**

Dr. Joe Schmalfeldt, Department Chair

Wilson Physical Education Complex, Room 237 505.454.3032 FAX: 505.454.3001

E-Mail: jschmal@nmhu.edu

# Mission of the Department of Exercise and Sport Sciences

The mission of the Department of Exercise and Sport Sciences is to improve the quality of life related to the many aspects of human movement. We concentrate on a full spectrum of human potential, from young to old, fit to unfit, recreational to higher athletic, healthy to diseased, and able-bodied to disabled. Our programs are related to the study of exercise physiology, health, teaching, athletic injuries, recreation, sports administration, and coaching.

#### **Faculty**

William Hayward, Ph.D. (Exercise Science)

Kathy Jenkins, Ph.D. (Exercise Science)

Yongseek Kim, Ph.D. (Recreation and Sport Management)

Jay Lee, Ph.D. (Exercise Physiology)

Joe Schmalfeldt, Ph.D. (Physical Education)

#### **Resources and Facilities**

Two undergraduate majors are available in the Department of Exercise and Sport Sciences: human performance and sport (HPS) and health. The HPS major offers a choice of three concentration areas: exercise science, physical education and recreation and sport management. Additionally, three minors are available: HPS, health, and coaching. There are also three concentrations in health: health education, health promotion and wellness, and pre-professional allied health. Additionally, four minors are available: HPS, health, coaching and recreation.

The department offers courses for the community as well as for university personnel. The New Mexico Highlands University Wellness Program (HU-Wellness) provides a variety of health promotion activities including classes, consultations, seminars and workshops. Fitness and health assessments with consultation and exercise prescriptions are available to employees, students, and community members. The Cardiovascular Health Enhancement and Exercise Rehabilitation (CHEER) Program provides supervised exercise classes for patients with heart disease.

In addition, the ESS department cooperates with other academic areas within the university by providing opportunities for students to take a variety of academic classes. There are numerous activity classes for students, faculty, and community members to take, such as skiing, swimming, golf, fitness activity, racquetball, and weight lifting. As part of their core requirements, students have an opportunity to take at least two physical education courses or the Fit for Life class (wellness course). The Fit for Life course is a prerequisite for all ESS majors.

The career choices for students receiving a major in the ESS are numerous: activity director/instructor, aquatic manager, adapted physical education instructor, athletic director, athletic trainer, personal fitness trainer, cardiac rehabilitation specialist, community health consultant, corporate wellness director, employee wellness consultant, health promotion and wellness leader/director, exercise laboratory technician, physical education teacher, health education teacher, recreation director, senior citizen recreation director, therapeutic recreation specialist, travel and tourism director, and many more.

The John A. Wilson Physical Education Complex is the pride of the program. The building offers modern facilities for physical and health education instruction and student and faculty research, as well as complete facilities for athletic training. The HU Wellness Program and Exercise Science Laboratory enable students to obtain practical experience in fitness testing and exercise programming.

## **Exercise and Sport Sciences**

## Major in Human Performance and Sport (BA)

The HPS physical education concentration and HPS minor prepare elementary and secondary physical education teachers. This area offers a broad technical

foundation in scientific principles and relevant technology, including kinesiology, exercise physiology, sports techniques, and pedagogical methodology. Students in the HPS physical education concentration should minor in secondary education in order to obtain the K-12 teaching licensure in New Mexico.

The HPS exercise science concentration is designed to prepare students who wish to become personal trainers and/or work in the area of corporate fitness. This concentration offers a more scientifically focused curriculum, including kinesiology, exercise physiology, fitness program design, and fitness and wellness program leadership. Students in this concentration are encouraged to minor in either health or business.

The HPS recreational sport management concentration is designed to prepare students in sport industry including amateur sports (youth and high school sports, collegiate sports, and international sports) and professional sports, sport facility management, management, sporting goods and licensed products, health and fitness, and recreational sport, but the other industries which are marketing their products/services through sport. Students receive training in marketing their products or services through sport, for possible employment in other industries. No minor is required for students completing this concentration.

#### Prerequisite:

PE 100 Fit for Life (2)\*

\*Satisfies two credit hours of university extended core requirement.

## Required Courses: 9 credit hours

HPS 370 Kinesiology (3)

HPS 376 Exercise Physiology (3)

HPS 410 Measurement & Evaluation in Physical Ed (3)

Students must also choose an area of concentration and complete all courses in the concentration area.

#### A. Concentration in Exercise Science

### Required courses: 27 credit hours

HLTH 213 Nutrition for Exercise & Sport (3)

HPS 223 First Aid & CPR (3)

HPS 405 Body Composition (3)

HPS 421 Designs for Fitness (3)

HPS 428 Nutrition & Support in Sport (3)

HPS 472 Biomechanics of Sport (3)

HPS 476 Stress Testing (3)

HLTH 489 Fitness/Wellness Program Leadership (3)

HPS 430 ACSM Health Fitness Instructor Review (3)

OR

HPS 432 NSCA Strength Coach Review (3)

Major Total: 36 credit hours
Core Total: 35 credit hours
Extended core: 5 credit hours
Minor: 20 credit hours minimum

Proficiency/Electives to 120: 24 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional elective credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

## **B. Concentration in Physical Education**

## Required courses: 21 credit hours

SPED 214 Introduction to Special Ed (3)

HPS 223 First Aid & CPR (3)

HPS 350 Methods of Teaching HPE (3)

HPS 387 PE for Elementary Teachers (3)

HPS 402 Motor Learning (3)

HPS 468 PE for Special Populations (3)

HPS 495 Capstone/Senior Seminar (3)

Electives: 6 credit hours (choose three)

HPS 227 Water Safety Instructor Course (2)

HPS 261 Techniques of Team Sports (2)

HPS 263 Techniques of Individual Sports (2)

HPS 265 Techniques of Innovative Sports (2)

Major Total: 36 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Minor: 20 credit hours minimum

Proficiency/Electives to 120: 24 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional elective credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

## C. Concentration in Recreation and Sport Management

#### Required courses: 36 credit hours

LSVC 230 Introduction to Sport Management (3)

LSVC 315 Introduction to Golf Course Management (3)

HPS 409 Economics & Finance in Sport (3)

HPS 412 Public Relations in Sport (3)

HPS 461 Sport Market & Promotion (3)

HPS 465 Plan Areas & Facilities (3)

ECON 217 Principles of Microeconomics (3)

ACCT 287 Principles of Financial Accounting (3)

MKTG 302 Principles of Marketing (3)

MGMT 303 Principles of Management (3)

FIN 341 Principles of Financial Management (3)

BLAW 360 Business Law I (3)

# Electives: 15 credit hours

In exercise and sport science, choose six credits from the following:

HPS 223 First Aid and CPR (3)

HPS 416 Aquatic Management (3)

HPS 421 Designs for Fitness (3)

In the School of Business, Media and Technology, choose nine credits of electives in consultation with a business adviser.

Major Total: 60 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Minor: 20 credit hours minimum

Proficiency/Electives to 120: 0 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional elective credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

## Major in Health (BA)

The health major has four tracks. The health education track is designed to prepare the health science teacher. The health promotion and wellness track is designed to prepare students interested in health careers with commercial, corporate, community, or government health/fitness/wellness programs. The pre-professional health track is designed to prepare students for professional school in allopathic, osteopathic, chiropractic, podiatric, naturopathic, veterinary medicine, dentistry, optometry, pharmacy, nursing, physical therapy,

or similar health related areas. The HPS pre-professional concentration is designed to teach students the competencies for national certification as an athletic trainer (ATC). All tracks prepare the student for advanced training in graduate school.

#### Student must take:

MATH 120, MATH 140, MATH 160, or the equivalent of algebra and trigonometry in high school and PE 100 (Fit for Life) to qualify for the major in health.

#### **The Health Education Track**

Biological Perspectives (BIOL 110) should be taken as part of the student's science requirement. Students who intend to teach health in the public schools must consult with an adviser in the School of Education for licensure requirements.

Required courses: 38 credit hours

PE 100 Fit for Life (2) (Applies to Extended Core)

HLTH 151 Personal Health and Wellness (3)

HLTH 213 Nutrition for Exercise & Sport (3)

HLTH 380 Human Diseases (3)

HLTH 382 Health Problems in Schools (3)

HLTH 415 Health, Culture, & Diversity (3)

HLTH 474 Stress Management (3)

HPS 223 First Aid & CPR (3)

HPS 350 Methods of Teaching HPE (3)

HPS 410 Measurement & Evaluation in Physical Ed (3)

HLTH 472 Health Promotion (3)

HLTH 352 Health & Sex Ed (3)

OR

PSY 422 Human Sexuality (3)

AND

HLTH 353 Health & Drug Education (3)

OR

PSY 408 Drugs & Behavior (3) Major Total: 38 credit hours Core Total: 35 credit hours Extended core: 3 credit hours Minor: 20 credit hours minimum

Proficiency/Electives to 120: 24 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional elective credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

# The Health Promotion and Wellness Track

Biological Perspectives (BIOL 110) should be taken as part of the student's science requirement.

## Required courses: 38 credit hours

PE 100 Fit for Life (2) (Applies to Extended Core)

HLTH 151 Personal Health and Wellness (3)

HLTH 213 Nutrition for Exercise & Sport (3)

HLTH 321 Foundations of Community Health (3)

HLTH 352 Health and Sex Education (3)

HLTH 380 Human Diseases (3)

HLTH 415 Health, Culture, & Diversity (3)

HLTH 421 Epidemiology (3)

HLTH 469 Public Health and Wellness (3)

HLTH 472 Health Promotion (3)

HLTH 474 Stress Management (3)

HLTH 489 Fitness/Wellness Progressive Leadership (3)

SOC 330 Research Methods in Social Relationships (3)

Major Total: 38 credit hours Core Total: 35 credit hours Extended core: 3 credit hours Minor: 20 credit hours minimum

Proficiency/Electives to 120: 24 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional elective credit hours may be required to meet the 120 credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

#### **Pre-Professional Allied Health**

## Required courses: 57 credit hours

PE 100 Fit for Life (2) (Applies to Extended Core)

BIOL 211 General Biology I (4)

BIOL 212 General Biology II (4)

BIOL 231 Introduction to Human Anatomy & Physiology 1 (4)

BIOL 232 Introduction to Human Anatomy & Physiology 2 (4)

CHEM 211 General Chemistry 1 (3)\*

CHEM 212 General Chemistry 2 (3)\*

CHEM 215 Chemistry Lab 1 (2)\*

CHEM 216 Chemistry Lab 2 (2)\*

HLTH 151 Personal Health and Wellness (3)

HLTH 213 Nutrition for Exercise & Sport (3)

HLTH 402 US-Mexico Border Health Issues (3)

HPS 370 Kinesiology (3)

HPS 376 Exercise Physiology (3)

HPS 381 Injury Assessment & Management (3)

PHYS 151 Algebra Physics 1 (4)\*

PHYS 152 Algebra Physics 2 (4)\*

PSY 324 Abnormal Psychology (3)

OR

PSY 340 Developmental Psychology (3)

\*This block of coursework is required for most pre-professional applicants to physical therapy schools. Other professional schools may require less laboratory preparation, in which case electives may be taken instead to structure a program according to individual needs and goals. This curriculum is not designed to prepare students for medical school. Students interested in the Pre-Med Program should contact the biology faculty.

Major Total: 57 credit hours Core Total: 35 credit hours Extended core: 3 credit hours Minor: 20 credit hours minimum

Proficiency/Electives to 120: 5 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional elective credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

#### Minor in Human Performance and Sport

This minor is available to all students.

#### Prerequisite:

PE 100 Fit for Life (2)

 ${\it *Satisfies two credit hours of extended core requirement.}$ 

#### Required courses: 21 credit hours

HPS 223 First Aid & CPR (3)

HPS 350 Methods of Technology Health & Physical Ed (3)

HPS 376 Exercise Physiology (3)

HPS 410 Measurement & Evaluation (3)

HPS 468 Physical Ed for Special Populations (3)

HPS 472 Biomechanics of Sport (3)

HPS 495 Capstone/Senior Seminar (3)

#### Electives: 4 credit hours

#### Choose two courses from the following:

HPS 225 Lifeguard Training (2)

HPS 227 Water Safety Instructor Course (2)

HPS 261 Techniques of Team Sports (2)

HPS 263 Techniques of Individual Sports (2)

HPS 265 Techniques on Innovative Games (2)

Minor Total: 25 credit hours

## Minor in Coaching

This minor is available to students with any major.

#### Prerequisite:

PE 100 Fit for Life (2)

\*Satisfies two credit hours of extended core requirement.

## Required courses: 24 credit hours

HLTH 213 Nutrition for Exercise & Sport (3)

HPS 223 First Aid & CPR (3)

HPS 376 Exercise Physiology (3)

HPS 381 Injury Assessment & Management (3)

HPS 408 Principles, Ethics, & Problems of Athletic Coaching (3)

HPS 421 Designs for Fitness (3)

HPS 428 Nutrition and Supplements for Sports (3)

HPS 478 Psychology of Coaching (3)

### Electives: 4 credit hours

#### Choose two courses from the following:

HPS 365 Coaching/Officiating Baseball/Softball (2)

HPS 366 Coaching/Officiating Basketball (2)

HPS 367 Coaching/Officiating Football (2)

HPS 368 Coaching/Officiating Volleyball (2)

HPS 369 Coaching/Officiating Track & Field (2)

Minor Total: 28 credit hours

## **Minor in Recreation**

#### Prerequisite:

PE 100 Fit for Life (2)

\*Satisfies two credit hours of extended core requirement.

#### Required courses: 24 credit hours

HPS 223 First Aid & CPR (3)

LSVC 230 Introduction to Sport Management (3)

LSVC 315 Introduction to Golf Course Management (3)

HPS 409 Economics & Finance in Sport (3)

HPS 412 Public Relations in Sport (3)

HPS 416 Aquatics Management (3)

HPS 461 Sport Marketing & Promotion (3)

HPS 465 Planning Areas & Facilities (3)

Minor Total: 24 credit hours

#### Minor in Health

The health minor is designed for students wishing to study information related to the various aspects of health.

#### Prerequisite:

PE 100 Fit for Life (2)

\*Satisfies two credit hours of extended core requirement.

#### Required courses: 24 credit hours

HLTH 151 Personal & Community Health (3)

HLTH 213 Nutrition for Exercise & Sport (3)

HLTH 380 Human Diseases (3)

HLTH 321 Foundations of Community Health (3)

HLTH 474 Stress Management (3)

HLTH 472 Health Promotion (3)

HLTH 352 Health & Sex Education (3)

OR

PSY 422 Human Sexuality (3)

AND

HLTH 353 Health & Drug Education (3)

OR

PSY 408 Drugs & Behavior (3)

Minor Total: 24 credit hours

## General Physical Education (PE), Courses in

### PE 100. Fit for Life (2) Fa, Sp, Su

This course helps students develop an understanding and appreciation for personal wellness as a healthy lifestyle. Problem-solving and decision-making skills on numerous topics such as design of a personal physical activity program, prudent nutrition strategy, and stress management is included. Participation in this class enables students to take advantage of the opportunities to maximize prevention of disease and improve quality of life. Fit for Life is a prerequisite for all students who plan to major in HPLS. A special lab fee is assessed.

# PE 101. Beginning Swimming (1); 0, 2 Fa, Sp, Su

Physical education activity course.

#### PE 102. Intermediate Swimming (1); 0, 2 Fa, Sp, Su

Physical education activity course.

## PE 103. Advanced Swimming (1); Var

This course is designed to polish strokes students already know so they can swim with more ease, efficiency, power, and smoothness over greater distances. It is also an opportunity to learn the advanced strokes which are mostly taught to swimming instructors.

## PE 112. Self Defense (1); 0, 2 Var

Physical education activity course.

# PE 113. Weight Training (1); 0, 2 Fa, Sp, Su

Physical education activity course. May be offered in separate sections for men and women.

# PE 114. Conditioning Exercise (1); 0, 2 Fa, Sp, Su

Physical education activity course. May be offered in separate sections for men and women.

## PE 117. Water Aerobics (1); 0, 2 Fa, Sp, Su

Physical education activity course. May be offered in separate sections for senior citizens.

# PE 118. Lifetime Fitness for Senior Citizens (1-2 VC); 0, 4

Nonmedical supervision of physical activity and fitness/wellness information specifically designed for senior citizens (over 50 years of age).

Seniors must have a physician's clearance prior to admission. This is an HU-Wellness Program activity.

### PE 119. Walk-Jog for Fitness (1); 0, 2 Fa, Sp, Su

Walking or jogging as a lifetime fitness exercise.

#### PE 120. Basketball (1); 0, 2 Var

Physical education activity course.

#### PE 122. Soccer (1); 0, 2 Var

Physical education activity course.

#### PE 123. Softball (1); 0, 2 Var

Physical education activity course.

# PE 124. Volleyball (1); 0, 2 Var

Physical education activity course.

#### PE 133. Golf (1) Sp

Physical education activity course. Special fee charged. Course meets for extended hours during a half-semester.

## PE 135. Selected Topic: Activity Course (1)

Topic or topics in an activity course. May be repeated with change of content.

## PE 142. Cross-Country Skiing (1); 0, 2 Var

Physical education activity course. Special fee charged. Course meets for extended hours during a half-semester.

## PE 144. Fitness Activity (1-2 VC); 0, 4 Var

Nonmedical supervision of physical activity and fitness/wellness information exclusively for University employees. An HU-Wellness Program activity.

# PE 147. Beginning Skiing (1); 0, 2 Sp

Physical education activity course. Special fee charged. Course meets for extended hours during a half-semester.

#### PE 150. Cardiovascular Exercise Therapy (1-3 VC); 0, 2-4

Supervised exercise for patients enrolled in the Cardiovascular Health Enhancement and Exercise Rehabilitation (CHEER) Program. Prerequisite: Physician referral.

# PE 153. Step Aerobics (1); Var

Motivational course in which the healthy student, through active participation, will develop knowledge and skills sufficiently adequate to provide enjoyment for this cardiovascular and respiratory activity.

# PE 154. Yoga I (1); 0, 2 Fa, Sp, Su

Learn body alignment principles of yoga poses and movements. The yoga poses release tension, quiet mental anxiety, and increase circulation. Yoga increases strength and flexibility both in body and mind.

# PE 155. Yoga II (1); 0, 2 Fa, Sp, Su

A vigorous practice of fluid yoga movements linked with the breath to create overall health. A more advanced yoga to build up heat in the body to stretch and strengthen the muscles.

## PE 160. Wellness Program (1); 0, 2 Fa, Sp, Su

This course allows participants to utilize the NMHU Wellness Program during its normal operating hours. Additionally, students may use the Wilson Complex and the swimming pool.

#### PE 161. Intramurals (1); 0, 2 Var

This course allows community members to participate in the Intramurals Program at NMHU. Participants may compete in the Intramurals Program for the semester they are registered.

### Health (HLTH), Courses in

#### HLTH 151. Personal and Community Health (3); Fa, Sp, Su

This course is designed to introduce students to concepts of Personal Health and Wellness. Students will be introduced to the essentials of personal health including nutrition, fitness, and healthy relationships, STD's, complementary and alternative medicines, stress management and the meaning of wellness as it applies to prevention of chronic disease for overall health.

#### **HLTH 213. Nutrition for Exercise and Sport (3); Sp**

Nutrition strategy for optimal health, including disease prevention and human performance. Topics include selecting healthy foods, nutrient metabolism, energy use, ergogenic aids, herbal supplements, and holistic health science philosophy.

## HLTH 235 - 435. Selected Topic in Health (3)

Course in topic or topics in health. May be repeated with change of content.

# **HLTH 311. Foundation of Community Health (3); Sp**

Introduction and overview of the philosophical and practical foundations of public and community health, including expectations of the profession. Topics include historical survey, service organization, epidemiology, societal behavior, life-span health promotion, government administration, recreation, disease control, environmental protection, information resources, and new job opportunities developing in the health profession. Prerequisite: Hlth 151 or the equivalent.

## HLTH 321. Health and Sex (3); Var

Healthy sexuality and sexual abuse prevention strategies for student teachers. Health promotion, wellness, self-responsibility, and lifestyle choices and consequences are emphasized in techniques of early intervention and preventive techniques for school children. Prerequisite: Hlth 151 or equivalent.

## HLTH 353. Health and Drug Education (3); Sp

Drug and alcohol abuse prevention concepts and strategies for student teachers. Health promotion, wellness, self-responsibility, and lifestyle choices and consequences are emphasized in techniques of early intervention and preventive techniques for school children. Prerequisite: HLTH 151 or the equivalent.

#### HLTH 380. Human Diseases (3); 3, 0 Fa

A survey of various diseases commonly occurring in the U.S. Focus is provided for both infectious diseases and noninfectious diseases. Instruction in hemorrhagic viruses such as Ebola and hantavirus, is introduced along with other such emerging disease. Childhood diseases, acute and chronic diseases, and those that are pathogen caused are also presented. Control, treatment, and prevention strategies are presented.

#### HLTH 382. Health Problems in Schools (3); Sp

This course is designed to introduce the student to various problems and issues related to student and school health. Communicable and non-communicable diseases, mental health, and teen pregnancy will be covered in addition to legal and ethical implications of health in schools. Coordinated School Health Programs will also be discussed along with other associated public, community, private and government health agencies that work to address issues of school health.

### HLTH 402. U.S.-Mexico Border Health Issues (3); 3, 0 Sp

A problem-based approach to case study analysis designed to instill a broader appreciation of health issues and multidisciplinary collaboration to solve complex social issues. Instruction and research reflects upon the physical, mental, emotional, social, judicial, psychological, racial, cultural, financial, spiritual, occupational, and international concerns of those living along the United States-Mexico border. Attention is given to the broader ramifications of such issues for all United States citizenry. No previous background in health or any specific discipline is required.

## HLTH 415. Health, Culture & Diversity (3); Fa

This course examines what is meant by culture, the ways in which culture inter-

sects with health issues, how public health efforts can benefit by understanding and working with cultural processes, and an overview of conceptual tools and research methods that are useful in identifying relationships between culture and health. Prerequisite: Junior classification or instructor permission.

#### HLTH 421. Epidemiology (3); Sp

Epidemiology is the science behind public health statistics. Epidemiological concepts and skills involving interpretation and use of health-related data in populations or groups are studied. The course enables the understanding of causes and transmission of disease, tracking community health problems, and identifying trends related to public health problems. Critical judgment in assessing health related data is developed. Prerequisite: HLTH 321 or the equivalent.

#### HLTH 469. Public Health and Wellness (3); Fa

This course includes advanced public health concepts and development of critical thinking about the role of public health in the community. With interactive discussions, the course reviews community health promotion objectives and epidemiologically derived statistical information. Comprehensive focus is on three major areas: community health promotion, environmental health promotion, and health resources and services. Prerequisite: HLTH 321 or the equivalent.

#### HLTH 474. Stress Management (3); Sp

This course includes an overview of the body of literature available on the topic of stress and the techniques required to manage stress effectively. With interactive discussions, the course reviews health promotion objectives as they relate to stress. Course modules include the nature of stress, the mind and soul, coping strategies, and relaxation techniques. Comprehensive focus in on strategies designed to help one cope with the stressors of life. Prerequisites: HLTH 151, junior classification and instructor permission.

#### HLTH 489. Fitness/Wellness Program Leadership (3); Sp

Practical field experience and supportive lecture in the fitness and wellness program management aspects of health promotion. Leadership skills include administration, health education, nutrition strategy, and applied exercise science/technology. Students assist in the operation of the HU-Wellness Program. Students may choose another work site to gain valuable field experience upon approval from the professor.

### **HLTH 490. Independent Study (1-4 VC)**

Individual study arranged with an instructor. Prerequisite: Permission of instructor.

#### **Human Performance and Sport (HPS)**

HPS 135 – 435. Selected Topic in Human Performance and Sport (1-4 VC)

Course in topic or topics in human performance and sport. May be repeated with change of content.

## HPS 223. First Aid and CPR (3); Fa, Sp, Su

Instruction in appropriate procedures for rendering emergency care to the victim of an accident or sudden illness; including prevention techniques. American National Red Cross certification is available.

# HPS 224. Emergency Medical Training (EMT) (6); Var

This course is for students to understand the theory of emergency care and first aid and to be able to demonstrate the skills needed to give emergency care. This course is designed specifically for ambulance personnel who have access to specialized vehicles. The course content trains ambulance attendants to recognize and stabilize patients with life-threatening emergencies at the scene and in transport, utilizing the specialized items of equipment. Ambulance attendants, fire fighters, police officers, and search and rescue personnel would benefit from this class. Upon successful completion of the course, the student will receive certificates from New Mexico Highlands University, the Emergency Medical Service Academy, and the School of Medicine at The University of New Mexico.

### HPS 225. Lifeguard Training (2); Fa, Sp

This course provides students with knowledge and skills to save their own or another's life in an aquatic emergency. Lifeguarding procedures, the management and maintenance of aquatic facilities, and safety policies in and around those facilities are included in this course. American Red Cross certification is available. Prerequisite: PE 102 or equivalent.

#### HPS 227. Water Safety Instructor Course (2); 0, 4 Sp

Training for water safety instructors. Students will be trained to teach and/or certify swimmers in the following aquatic courses: basic and emergency water safety, infant and preschool aquatic program, and progressive swimming courses (beginning swimming to advanced swimming). Theoretical and practical knowledge of aquatic instruction is covered in depth. Prerequisite: Current lifeguard certificate or equivalent.

## HPS 234 - 434. Practicum (1-4 VC)

Hands-on experience of various intensity and time in HPS.

## HPS 261. Techniques of Team Sports (2); 1, 2 Fa

This course prepares teachers to be able to give movement prescription regarding team skills activities. The team skill activities include: dribbling, ball handling, use of implements, catching, throwing, passing manipulation, kicking, striking, dodging and chasing. Class experiences will include analyzing movement and performance techniques including the use of specific performance feedback, and applications to team sport activities.

## HPS 263. Techniques of Individual Sports (2); 1, 2; Fa

This course prepares teachers to be able to give movement prescription regarding individual sports activities, such as racquet sports, golf, and others. Instruction in the techniques inherent to each individual sport will be presented. Class experiences will include analyzing movement and performance techniques, including the use of specific performance feedback, and applications to individual sport activities.

# HPS 265. Techniques of Innovative Games and Activities (2); 1, 2 Sp

This course is designed to prepare teachers to be able to give movement prescription regarding innovative games and activities, such as ultimate, disc golf, flicker-ball, and team handball. Instruction in the techniques inherent to innovative games and activities will be presented. Class experiences will include analyzing movement and performance techniques including the use of specific performance feedback, and applications to regarding innovative games and activities.

## HPS 290 - 490. Independent Study (1-4 VC)

Individual study arranged with an instructor. Prerequisite: Permission of instructor.

### HPS 334 - 434. Practicum (1-4 VC)

Field experience work placement with specific responsibility over a sustained period of time. All practicum courses will include on-campus seminars with the supervisors. Credit hours for each experience are approved separately by program area. May be repeated for a maximum of four credit hours. Practicum areas may be offered in aquatics, adapted physical education, athletic coaching, health education, and physical education. Prerequisite: permission of instructor.

## HPS 350. Methods of Teaching Health Physical Education (3); Fa

A comprehensive course in health education and in physical education methods and curriculum. Practical skills include curriculum construction, writing behavioral objectives, writing lesson plans, and carrying out effective health instruction and effective physical education instruction, such as use of methods, materials, resources, and evaluation techniques. Much class time is spent in hands-on planning and teaching of lessons. Students will develop a health promotion or wellness philosophy and practical skills for teaching health science. Micro-teaching in both health education and in physical education is a requirement in the course. Prerequisite: HLTH 151, HPS 261, 263, and 265 or the equivalent.

## HPS 365. Coaching/Officiating Baseball/Softball (2); Fa

Philosophy, strategy, leadership, team, and practice organization and coaching methods for baseball/softball are covered. It also includes lecture and laboratory experience in the rules and mechanics of officiating baseball/softball. This course prepares students for the New Mexico Activities Association Officials' Examination. Prerequisite: HPS 238 or equivalent.

#### HPS 366. Coaching/Officiating Basketball (2); Fa

Strategy, leadership, team organization, and coaching methods for basketball, with lecture and laboratory experience in the rules and mechanics of officiating basketball. Prerequisite: HPS 237 or equivalent.

#### HPS 367. Coaching/Officiating Football (2); Sp

Development of knowledge regarding offensive football, defensive football, and the kicking game for coaching football. Special phases, such as scouting, film work, organization, coaching assignment, and public relations, are introduced. The course prepares students for the New Mexico Activities Association Officials' Examination. Prerequisite: HPS 240 or equivalent.

# HPS 368. Coaching/Officiating Volleyball (2); Sp

Coaching and officiating techniques in the sport of volleyball, including strategy, leadership, team organization, and budgeting. Prerequisite: HPS 245 or equivalent.

## HPS 369. Coaching/Officiating Track and Field (2); Fa

Strategy, leadership, team organization, budgeting, and methods of coaching and officiating track and field.

#### HPS 370. Kinesiology (3); 2, 2 Fa, Sp

An examination of body structure as it relates to human movement, with particular emphasis on the musculoskeletal system and the biomechanics that govern movement.

#### HPS 376. Exercise Physiology (3); 2,2 Fa, Sp

Physiological basis of exercise and fitness, including muscle strength, cardiorespiratory endurance, environmental factors affecting performance, and conditioning programs. Prerequisite: HPS 370.

# HPS 381. Injury Assessment and Management (3); Sp

Recognition techniques and guidelines for initial care of common athletic injuries and prevention of injuries through conditioning, flexibility, equipment fitting, and taping techniques.

# HPS 387. Physical Education for Elementary Teachers (3); Sp

Preparation for teaching physical education activities to elementary school children. Methods and materials are presented.

# HPS 402. Motor Learning (3); Fa

Information will be presented on motor learning with an emphasis on the learning process, the individual learner, and the task and instructional procedures that may be employed by those working in a movement setting of any kind.

#### HPS 405. Body Composition (3); 3, 2 Fa

Theory and practice of body composition assessment and weight management programs are presented. Laboratories will include skinfolds, bio-impedance, and hydrostatic weighing techniques.

# HPS 408. Principles, Ethics, and Problems of Athletic Coaching (3); Sp

Seminar approach to nontechnical, off-field aspects of athletic coaching, including education implications, equipment, financing, liability, and coach-athlete rapport. Prerequisite: HPS major/minor, coaching minor, or consent of instructor.

## HPS 409. Economics and Finance in Sport (3); 3, 0 Su

This course will explore the principles of financial management and economics of the sport industry. Budgeting practices, fundraising methods, economic impact analyses, methods of financing, and computer applications in finan-

cial management will be analyzed in the context of sport.

# HPS 410. Measurement and Evaluation in Physical Education (3); Fa, Sp

Measurement and evaluation principles and techniques applied to the learner and to programs in physical education.

#### HPS 412. Public Relations in Sport (3); 3, 0 Su

This course provides both theoretical and practical applications of public relations with regard to the sport industry. Specific managerial functions relating to effective communication with various publics will be analyzed, including employee relations, community relations, media relations, customer relations, and image enhancement.

#### HPS 415. Women in Sport (3); Su

This course discusses the past, present and future of women in sport. Information includes the historical and cultural foundation of women's sport from ancient to modern times, biomedical considerations specific to women, and the psychosocial dimensions of women's sport.

# HPS 416. Aquatic Management (3); Fa

This course provides guidelines for safe operation and efficient management of swimming pools and other related aquatic facilities. Students will take the Certified Pool Operator certification examination at the end of the course. A score of 70 percent or above certifies the student as a certified pool operator for five years.

## HPS 421. Designs for Fitness (3); 3, 0 Sp

This course teaches the fundamentals of writing exercise prescriptions for cardiorespiratory and muscular fitness and for weight management programs.

#### HPS 428. Nutrition and Supplements for Sports (3); Sp

Various sports supplements used as ergogenic aids will be discussed, in relation to their use, safety, and validity.

### HPS 430. ACSM Health Fitness Instructor Review (3); Fa

This course helps prepare students for the certification in health/fitness Instructor by the American College of Sports Medicine

## HPS 432. NSCA Strength Coach Review (3); 3, 0 Sp

The course helps students prepare for the National Strength and Conditioning Association's Certified Strength and Conditioning Specialist (CSCS) exam. The course will focus on NSCA terminology and training philosophy, helping to integrate the student's knowledge of personal training, exercise physiology, and kinesiology.

# HPS 436. Pediatric Exercise Physiology (3); 3, 0 Fa, Su

The physiological aspects of exercise in children will be discussed. Differences between the physiology of adults and children will be compared to enhance the understanding of this special population.

# HPS 438. Physical Activity and Aging (3); 3, 0 Su

The biological aspects of aging and their relationship to physical fitness and assessment are discussed.

# HPS 450. Seminar in Human Performance and Sport (1-4 VC)

The course presents seminar investigations in physical education and/or the related areas of health education, recreation, and athletics.

# HPS 461. Sport Marketing and Promotion (3); 3, 0 Fa

Course covers elements and salient issues in management of sport marketing and promotion, including segmentation and targeting, marketing mix, and research and analysis.

## HPS 465. Planning Areas and Facilities (3); Fa

Planning, financing, and managing physical education and athletic grounds and facilities, health and fitness centers, private and commercial facilities, and campsites for professional personnel.

HPS 468. Physical Education for Special Populations (3); Sp, Su

Investigations of the historical aspects and current issues of providing adapted/special education programs for special populations. The course covers implications of federal legislation, practice in preparing Individual Educations Programs (IEPs), program assessment, planning, and evaluation.

#### HPS 472. Biomechanics of Sport (3); Sp

An examination of the musculoskeletal system as it relates to human movement. This includes analysis of human movement and sport techniques, using principles of biomechanics. Prerequisite: HPS 370.

#### HPS 476. Stress Testing (3); 2, 2 Fa

Theory and practice of graded exercise testing for analysis of safe functional capacity and for prescription of exercise training programs. Students will learn to read EKGs and monitor blood pressure during testing. Special lab fee. Prerequisites: HPS 370 and HPS 376.

## HPS 478. Psychology of Coaching (3); Sp

A practical survey of sport psychology that is grounded in science. Attitudes, feelings, and behaviors that affect athletic performance and coaching effectiveness are dealt with from the standpoint of description, explanation, and prediction. Students develop the ability to interpret research results. Major topic areas include the psychological needs of athletes and coaches and development of mental skills and control with applied techniques.

#### HPS 495. Capstone/Senior Seminar Course (3); 3, 0

This course prepares preservice physical education teachers for their student teaching experience. This capstone/seminar course reviews and synthesizes knowledge and experience from previous coursework in the major. Assessment of the student's knowledge of history, issues, problems, NM physical education standards, technology, portfolio development, and trends will be the focus. A major research project is required. Prerequisite: Senior HPE majors.

## HPS 499. Independent Research (1-4 VC)

Individual, directed research arranged with an instructor. Prerequisite: Permission on instructor.

#### Leisure Services (LSVC)

## LSVC 230. Intro to Sport Management (3); 3, 0 Sp

This course introduces the foundations of sport management, skills and competencies required of sport managers in various sport or sport-related organizations, including strategic management planning process, human resources management, financial management, sport marketing, facility and event management in amateur and professional industry.

## LSVC 315. Introduction to Golf Management (3); Fa

This course provides students with an understanding of the golf industry and turf management of a golf course. It includes a study of the history of golf and the management, operation and maintenance of clubs, including member-owned, private/corporate-owned, and city/county owned.

## **Department of History & Political Science**

Dr. Steven J. Williams, Department Chair Douglas Hall, Room 249 PHONE: 505.454.3435

FAX: 505.454.3389

EMAIL: sjwilliams@nmhu.edu

## Mission of the Department of History and Political Science

History and Political Science forms an academic unit serving the undergraduate and graduate student body with a wide range of courses and possibilities for study. Historical and political understanding and awareness are perceived as one of the chief attributes of a functional and involved citizen of the United States. It is the mission of this department to provide services that will contribute to this goal as well as train graduates to work in appropriate fields that require historical and political skills and knowledge.

#### Faculty

Peter S. Linder, Ph.D. (History) Abbas Manafy, Ph.D. (Political Science) Elaine Rodriquez, Ph.D. (Political Science) Kristie Ross, Ph.D. (History) Steven J. Williams, Ph.D. (History)

#### History

Historians investigate the past in order to understand the present – how we came to be where we are and who we are. The word history comes from the Greek word for inquiry. Historians, broadly speaking, are interested in the social, political, economic, religious, and cultural activities of all people. Their methods include interviewing eyewitnesses of recent events, reading old diaries and letters, and conducting research in public or private repositories. Members of the History faculty at Highlands especially encourage our students to make connections between our own lives and the past.

Students of history can pursue careers in teaching or other professions, and many will continue for an advanced degree in the discipline or enter law school. Professional applications of history include careers in government and business, where the skills of research, communication, and critical thinking are valued. Some history students find positions doing research and preservation work in museums and archives.

## **Political Science**

Aristotle characterized politics as the "queen of the sciences." Political science is, in one sense, an ancient discipline and, in another sense, one of the most recently developed social sciences. The origins of the study of politics reach back to the beginning so human society, for people have always made observations about the nature of their government. It is also true that political science, as it is taught today, is a very new discipline as current scholars have attempted to move from observations about politics to scientific observations about politics. Political science, in the broadest sense, is the study of governments, governing procedures, and political processes. The political science faculty encourages students to make connections between the theoretical (or textbook) study of government/politics and how government affects their lives in contemporary times.

Students in political science may seek careers in government, NGOs (non-governmental organizations), teaching, or private industry. The political science major is an excellent preparation for law school or other academic pursuits such as graduate study. It provides pre-professional training for governmental or public sector positions involving policy-making or administration. Representative employers include government agencies at the national, state, or local levels, nonprofit organizations, corporations, and research institutions.

# **History and Political Science**

## Major in History (BA)

Required courses: 6 credit hours HIST 301 Research Methods (3) HIST 480 Historiography (3)

#### Electives: 27 credit hours

Choose at least nine additional credits in 300- and 400- level courses from history in consultation with the major adviser. Choose 18 additional credits in courses at any level from history in consultation with the major adviser. Substitutions in allied fields will be considered on a case-by-case basis, at the discretion of the History faculty.

Major total: 33 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Minor: 20 credit hours minimum

Proficiency/Electives to 120: 27 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. Additional credit hours (electives) may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

#### Minor in History

Choose at least 21 credits from courses in history, in consultation with the minor adviser. At least nine (9) of the credits must be from courses at the 300 to 400 level. Substitutions in allied fields will be considered on a case-by-case basis, at the discretion of the History faculty.

# Minor Total: 21 credit hours

### Major in Political Science (BA)

The major in political science is offered with two emphases: liberal arts and law. The law emphasis provides a foundation in government and political systems, and addresses legal systems and dimensions of constitutional, public and criminal law. The liberal arts emphasis provides extensive study of American national, state, and local government, comparative and international politics, political theory, and political behavior. A special feature of political science at Highlands is found in its focus on Southwest and minority political studies.

## **Liberal Arts Emphasis**

#### Required courses: 12 credit hours

POLS 151 American National Government (3) POLS 312 Political Parties & Behavior (3) POLS 316 State & Local Government (3) POLS 328 Comparative Political Systems (3)

## Electives: 20 credit hours

Choose one course from the following:

POLS 410 American Constitution (3) OR POLS 458 Political Theory & Philosophy (3)

Choose at least 17 additional credits from courses in political science (or history courses such as 315, 401, 403, 413, 414), in consultation with the major adviser. At least five of the credits must be from courses at the 300 or 400 level.

Major total: 32 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Minor: 20 credit hours minimum

Proficiency/Electives to 120: 28 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. Additional credit hours (electives) may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### **Law Emphasis**

## Required courses: 26 credit hours

POLS 151 American National Government (3)

POLS 314 Introduction to the Law (3)

POLS 316 State & Local Government (3)

POLS 320 Criminal Law (3)

POLS 328 Comparative Political Systems (3)

POLS 410 American Constitution (3)

POLS 417 Legislative Process (3)

POLS 453 International Relations, Human Rights & Law (3)

POLS 497 LSAT Preparation & Legal Logic Class (2)

#### Electives: 6 credit hours

Choose at least six additional credits from political science courses (or from history courses cross-listed in political science), in consultation with the major adviser.

Major total: 32 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Minor: 20 credit hours minimum

Proficiency/Electives to 120: 28 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. Additional credit hours (electives) may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

### Pre-Law Preparation for Students Planning to Attend Law School

Comprehensive advising is available for students planning or considering the study and practice in law. Law or Pre-Law does not constitute a major; in fact, a wide variety of fields of study can be appropriate for the prospective lawyer. Many students select the major in political science, which offers a law emphasis; others select major and minor fields in the humanities, social sciences, sciences, mathematics or physical sciences.

Careful planning in appropriate fields of study, with special attention to a foundation of skills developed in classes with emphasis on written and oral communication, research, calculation, logical reasoning and critical thinking are strongly recommended for Pre-Law preparation. The pre-law adviser will help all students with their plans to gain an appropriate preparation for entering law school. This adviser is a source of much information about law schools and their requirements as well as the LSAT examination preparation, which is used to help law schools evaluate students' qualifications for entrance. The Pre-Law adviser is Dr. Elaine Rodriquez, Douglas Hall 248.

#### **Minor in Political Science**

#### Required courses: 6 credit hours

POLS 151 American National Government (3) POLS 316 State & Local Government (3)

# Electives: 14 credit hours

## Choose one course from the following:

POLS 410 American Constitution (3) POLS 458 Political Theory & Philosophy (3)

Choose at least 11 additional credits in courses from political science and allied subjects, selected in consultation with the minor adviser. At least four of these credits must be from 300- or 400-level courses.

#### Minor Total: 20 credit hours

# History (HIST), Courses in

## HIST 100. The Western World (3); Fa, Sp

From the ancient civilizations of the Middle East to contemporary Europe. NM Common Course Number: HIST 1053.

## HIST 160. Chicano History to 1900 (3); Variable

Review of the Chicano historical experience in the United States beginning with the Spanish conquest of Mexico in 1521 and ending with the eve of the statehood movement for New Mexico.

#### HIST 161. Chicano History Since 1900 (3); Variable

History of Chicanos in New Mexico and the United States, beginning with the early 1900s and ending with the Chicano Civil Rights Movement of the late 1960s.

#### HIST 201. United States History to 1865 (3); Fa, Sp

Colonial period through Civil War. NM Common Course Number: HIST 1113.

#### HIST 202. United States History from 1865 (3); Fa, Sp

Reconstruction to the present. NM Common Course Number: HIST 1213.

#### HIST 215. History of New Mexico (3); Variable

A survey from Cabeza de Vaca to the 20th century, including the Spanish period, the Mexican period, and the territorial period of the United States.

#### HIST 235 - 435. Selected Topic in History (1-4 VC)

Course in a topic or topics in history. May be repeated with change of content.

## HIST 290 - 390. Independent Study (1-4 VC); Fa, Sp, Su

Individual study arranged with a history faculty member. Prerequisite: Permission of instructor.

#### HIST 301. Research Methods in History (3); Sp

Training in historical methods, including location and use of sources, critical analysis, and historical writing.

# HIST 315. American Foreign Relations (3); Variable

Foreign policies and relations of the United States since 1776, with emphasis on 20th century development.

## HIST 321. The Ancient World (3); Variable

Ancient Middle Eastern kingdoms and the classical civilizations of Greece and Rome.

#### HIST 322. Medieval Europe (3); Variable

Christianity, Carolingian epoch, feudalism, and the foundations of modern Europe.

#### HIST 325. Modern Europe to 1815 (3); Variable

From the Renaissance through the fall of Napoleon.

# HIST 326. Modern Europe Since 1815 (3); Variable

From the Congress of Vienna to the post-World War II era.

### HIST 344. Colonial Latin America (3); Variable

Survey of Latin American history from before 1492 to the early 1800s with emphasis on economic, social, and cultural development of the region.

## HIST 345. Modern Latin America (3); Variable

Survey of Latin American history from independence through the present. Topics include independence, political unrest in the 19th century, economic modernization, revolution, and current problems in the region.

#### HIST 346. Contemporary Latin America (3); Variable

Current United States-Latin American relations, contemporary philosophies, and intellectual currents.

## HIST 347. History of Modern Mexico (3); Variable

Political, social, and economic development of modern Mexico.

# HIST 348. Revolutions in Contemporary Latin America (3); Variable

Consideration of the patterns of revolution in Latin America in the 20th century.

#### HIST 401. The Chicano Experience (3); Variable

Major trends in the historical experience and development of Chicanos in American society.

#### HIST 403. Chicano Leadership (3); Variable

A study of significant leaders among the Hispanic population in the Southwest during the Mexican territorial and early statehood periods.

#### HIST 406. North American Frontiers (3); Variable

Patterns of settlement in North America, with emphasis on frontier experience in the United States.

#### HIST 411. Women in the United States (3); Variable

A survey of the role of women in the history of the United States, including methodological and conceptual developments.

#### HIST 412. The Civil War and Reconstruction (3); Variable

The Old South, secession, civil conflict, Radical Reconstruction.

## HIST 413. The United States Since World War II (3); Variable

American society and foreign policy from Pearl Harbor to the present.

## HIST 414. The American Presidency (3); Variable

History, institution, and powers of the chief executive of the United States.

#### HIST 450. Seminar in History (1-4 VC); Variable

Seminar course in a topic or topics in history.

### HIST 452. Seminar: New Mexico History (3); Variable

Seminar course in a topic or topics in New Mexico history.

## HIST 453. History of the Southwest (3); Variable

Analysis of historic and contemporary issues confronting peoples of the Southwest.

#### HIST 454. Seminar: History Through Film (3); Variable

Movies are a tremendously powerful means of conveying ideas, including those having to do with the past. This seminar examines the relationship between film and history in a particular historical context.

#### HIST 480. Historiography (3); Sp

HIST Development of historical thought and writing.

## HIST 490. Senior Readings (1-4 VC)

Individually assigned readings and supervised investigations of selected topics, arranged with an individual instructor. Prerequisite: Advanced standing toward a major or minor, with a B average, and permission of instructor.

### HIST 498. Senior Seminar in History (3)

A senior seminar course in a topic or topics in history.

#### HIST 499. Supervised Research (1-4 VC)

Individual research arranged with an individual instructor. Prerequisite: Advanced standing toward a major or minor, with a B average, and permission of instructor.

# Political Science (POLS), Courses in

### POLS 151. American National Government (3); Fa, Sp

Constitutional foundations, structural organization, citizenship, powers, functions, and services. NM Common Course Number: POLS1123.

#### POLS 217. Ethnic Politics (3); Var

Ethnic basis of minority group politics in the United States with emphasis on the political development, problems, contemporary status, and activity of the Chicano, African-American, and Native American.

# POLS 235 - 435. Selected Topic in Political Science (1-4 VC)

Course in a topic or topics in political science. May be repeated with change in content.

#### POLS 251. Introduction to Political and Economic Systems (3); Var

The fundamentals of comparative economic and political systems, public finance, and international relations.

#### POLS 312. Political Parties and Behavior (3); Var

Organization, function, and methods of American political parties combined with analysis of political opinion formation and political participation including voting behavior and styles of leadership.

## POLS 314. Introduction to the Law (3); Fa

Introduction to civil procedure, criminal procedure, and the substantive concepts and principles of civil and criminal law.

#### POLS 316. State and Local Government (3); Var

Position of the states in the federal system; organization, functions and administrations of state, county, and city government.

#### POLS 320. Criminal Law (3); Var

Criminal Law provides the student with knowledge of the actual and potential use of criminal laws in the American legal process and how those uses might be evaluated.

#### POLS 328. Comparative Political Systems (3); Var

Introduction to the comparative analysis of political institutions, ideologies, and political cultures in the world community.

## POLS 334 - 434. Practicum (1-4 VC)

Experiential study directed by an instructor. Prerequisite: Permission of instructor.

#### POLS 353. International Relations (3); Var

The national state system; international conflicts, development of international cooperation; the United Nations and its problems.

#### POLS 402. Interest Groups (3); Var

Forms, tactics, and influence of interest groups; their role in a pluralistic society and their importance in a democracy.

#### POLS 410. The American Constitution (3); Var

Origin and establishment of leading constitutional doctrines.

# POLS 415. Government and Business (3); Var

Case study of United States government regulations of economic activity with emphasis on the administrative process.

# POLS 417. The Legislative Process (3); Var

Process of national and state lawmaking in the United States; legislation drafting and legislative procedure.

# POLS 418. Administrative Law and Procedure (3); Var

This course helps students become aware of administrative law and its relationship to public administrative programs. Administrative law concerns the powers and procedures of administrative agencies, including especially the law governing judicial review of administrative action. Political science majors who endeavor to enter the public administration arena oftentimes will be involved in the administrative process, which is a complex of methods by which agencies carry out their tasks of adjudication, rule-making, and related functions.

## POLS 419. Public Administration (3); Var

Organization of the administrative structure, problems of internal management, personnel, fiscal management, forms of administrative action, and procedure.

## POLS 425. History of Economic Thought (3); Var

Development of economic thought from the Middle Ages to the present.

# POLS 433. Chinese Communist Government (3); Var

Analysis of the Chinese government with emphasis on the role of the Communist Party; relationship of policies to tradition and world affairs.

# POLS 446. Government and Politics of Latin America (3); Var

Analysis of political systems, contemporary mass movements, and inter-American relations.

#### POLS 450. Seminar in Political Science (1-4 VC) Var

Seminar course in a topic or topics in political science.

# POLS 451. Seminar: New Mexico Government and Politics (3); Var

Structure, organization, function, and operation of New Mexico state and local government.

# POLS 453. International Relations, Human Rights and International Law (3); Var

A theoretical and critical analysis of the meaning and relevancy of the IR politics and its collision with international law and human rights in the age of globalization. Prerequisite: POLS 353, or permission of instructor.

# POLS 458. Political Theory and Philosophy (3); Var

Leading political ideas of the western world.

## POLS 460. The American and Russian Systems (3); Var

Comparison of political and economic institutions, including the underlying political theory of the two nations.

### POLS 462. International Monetary Systems (3); Var

This course is an examination of the national and international procedural rules which channel the behavior of governments and monetary institutions.

#### POLS 463. Political Economy (3); Var

Comparative study and analysis of the political economies of the major countries of the world, stressing the interdependence of the study of economics and politics.

## POLS 490. Senior Readings (1-4 VC)

Individually assigned readings and supervised investigations arranged with an instructor. Prerequisite: Advanced standing toward a major or minor, with a B average, and permission of instructor.

## POLS 497. LSAT Prep & Legal Logic Class (3); Var

Legal Logic and LSAT Preparation will provide students the fundamental skills sets to understand the fundamentals of logical reasoning and how it is used in law school and how to optimize their LSAT scores.

## POLS 499. Supervised Research (1-4 VC)

Individual research arranged with an instructor. Prerequisite: Advanced standing toward a major or minor, with a B average, and permission of instructor.

## Department of Languages and Culture

Dr. Eric Romero, interim chair

Douglas Hall, Room 249 505.454.3435 FAX: 505.454.3389

#### Mission of the Discipline of Languages and Culture

Because of its location, the discipline of languages and cultures is committed to the preservation, interpretation, and promotion of the unique multicultural heritage of the region. Thus, it recognizes the importance of the Spanish and Native American presence in the local and global community. The discipline further strives to integrate other foreign languages along with their respective culture and literatures

#### Faculty

Carol Litherland, MA (American Sign Language) Eric Romero, Ph.D. (Native American Hispano Studies) Norma Valenzuela Ph.D. (Spanish) Edgar Vargas Blanco, Ph.D. (Spanish)

#### Spanish

The discipline of languages and literature provides the beginning language student with two different learning approaches. Students who wish to take Spanish or seek to fulfill the core language requirement may choose the track that best matches their needs:

#### Heritage Language Learners (HL)

Spanish for heritage language learners addresses the bilingual speakers of Spanish who have achieved a certain degree of speaking and listening abilities outside of the classroom, but who have had little or no formal training in the language at the college level. The HL track is a designed for students who grew up around Spanish-speaking communities and understand basic Spanish conversation. The objectives in Spanish as a heritage language are to build upon the language base that the student already possesses and to teach literacy in Spanish. The HL courses emphasize reading, writing, and developing advanced vocabulary as well as reviewing specific problematic grammar and orthographic rules that are typically evident in Spanish heritage students. Selected authentic readings from Hispanic/Latino and Spanish or Latin American writers will serve as the framework for cultural and social issues that will lead to discussions.

## Second Language Learners (SL)

This track addresses the needs of students who learn other languages in addition to their native language(s). The term "second language" is used to describe any language whose acquisition starts after early childhood, including what may be the third or subsequent language learned. Course materials and methodology reflect effective teaching strategies in the field of second language acquisition and incorporate technology-enhanced instruction.

# **Spanish Placement Exam**

The purpose of the Spanish Placement Exam is to identify the student's proficiency in the language.

Please note: On the first day of the semester, the instructor will bring his or her students to the Language Learning Center to take the Spanish Placement Exam. This exam is utilized to determine the level at which students will begin the language proficiency requirement. This exam is also designed to detect heritage speakers of the Spanish language. Generally, these are learners who were raised in homes where Spanish was spoken and who are orally proficient in Spanish but have had little or no formal training in the language. This exam allows faculty members to place students in the appropriate Spanish classes for heritage language learners, which are intended to capitalize on their linguistic assets by increasing their awareness and appreciation of the different Hispanic cultures.

The Spanish Placement Exam results are sent to the transcript specialist to be noted in each student's respective file.

Once students begin their track, whether it is for second language learners

or heritage language learners, they must follow said track sequentially. No exceptions will be permitted.

If the placement exam recommends that the student take an upper-division class, the student will be encouraged to speak with the professor teaching said class before officially enrolling in the course to discuss any concerns. The student might feel that the placement exam does not fully reflect his or her level in the Spanish language. By speaking with the professor, the student will be able to decide whether or not he or she is ready to enroll in an upper-division class.

If a student shows proficiency at an intermediate-low level (HL111/SL/Spanish 101 and HL112/SL/Spanish 102), the language proficiency requirement is waived.

A successful placement exam, however, does not earn credit hours toward graduation. It only waives the classes necessary to fulfill the language proficiency requirement.

Placement evaluation scores are valid for one year only. If students allow a year or more in between completion of the 101/111 and 102/112 levels, they will have to take the placement exam again.

The placement exam is administered at the Language Learning Center (LCC),  $104\,\mathrm{Douglas\,Hall}.$ 

The LLC offers a language placement exam for speakers of other languages. More information is available from the LLC staff.

#### **Resources and Facilities**

Language students at Highlands are exposed to the Spanish language every day in the community and on campus.

The university's location in Northern New Mexico, where 70 percent of the population is Hispanic, offers a richly varied setting for studies in local, regional, and international culture and languages.

The Thomas C. Donnelly Library has more than 5,000 titles in Spanish culture and literature with an especially rich collection in the golden age of Spanish literature.

The Language Learning Center offers tutoring services in Spanish and American Sign Language to students who want to supplement their language learning outside of the classroom. Throughout the semester, tutors organize workshop-type sessions that focus on certain grammatical concepts and other aspects of the language that professors believe the students need to develop. The LLC tutors also host "charlas" (conversation sessions) for those who want to exercise and improve their oral communication skills in Spanish. Signed conversation sessions are also held for students who want to practice and improve their ASL fluency. Students are encouraged to schedule an appointment with the tutors, but may seek tutoring on a walk-in basis.

Aside from tutoring services, the Language Learning Center houses many resources that our staff can recommend to students who are interested in enhancing their language knowledge. The center is equipped with 24 computer workstations that have Internet access and contain the most popular Microsoft Office software applications, an instructor computer workstation with a Smartboard, and a large media collection of audio-visual programs and recordings to enhance Spanish language instruction and acquisition.

#### Languages and Culture

### Major in Spanish (BA)

## Prerequisite:

Proficiency in first-year Spanish, as demonstrated by completion of Spanish 101 and Spanish 102, or Spanish 111 or Spanish 112, or the equivalent competency. These courses do not count toward the 36-credit-hour major.

# Required courses: 27 credit hours

SPAN 201 Intermediate Spanish 1 (3)

SPAN 202 Intermediate Spanish 2 (3)

SPAN 211 Intermediate Spanish as Heritage Language 1 (3)

SPAN 212 Intermediate Spanish as Heritage Language 2 (3)

AND

SPAN 300 Advanced Grammar (3)

SPAN 310 Advanced Conversation (3)

SPAN 330 Introduction to Hispanic Literature (3)

SPAN 424 Advanced Composition (3)

SPAN 430 Introduction to Spanish Linguistics (3)

SPAN 495 Senior Year Paper (3)

Choose one of the following:

SPAN 431 Civilization & Culture of Spain (3)

SPAN 432 Civilization & Culture of Latin America (3)

SPAN 433 Civilization & Culture of New Mexico and the Southwest (3)

#### Electives: 9 credit hours

In consulting with their program adviser, students can choose three upper-division elective courses to complete the major.

Major Total: 36 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Minor: 20 credit hours minimum

Proficiency/Electives to 120: 24 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. Additional credit hours (electives) may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

# Major in Spanish for Elementary and/or Secondary School Teachers (K – 12) (BA)

The following course must be taken as one of the nine elective credits used in fulfillment of the general Spanish major:

SPAN 445 Teaching of Spanish: Theory & Methods (3)

Those pursuing a teaching career must contact the School of Education for required certification/endorsement coursework as stipulated by the State of New Mexico Public Education Department.

Major Total: 36 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Minor: 20 credit hours minimum

Proficiency/Electives to 120: 24 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. Additional credit hours (electives) may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

## Minor in Spanish

### Prerequisite:

Proficiency in first-year Spanish as demonstrated by completion of Spanish 101 and Spanish 102, or Spanish 111 or Spanish 112 or the equivalent competency. (These courses do not count toward the 24-credit-hour minor.)

## Required hours: 18 credit hours

SPAN 201 Intermediate Spanish 1 (3)

SPAN 202 Intermediate Spanish 2 (3)

OR

SPAN 211 Intermediate Spanish as Heritage Language 1 (3)

SPAN 212 Intermediate Spanish as Heritage Language 2 (3)

#### AND

SPAN 300 Advanced Grammar (3)

SPAN 310 Advanced Conversation (3)

SPAN 424 Advanced Composition (3)

Choose one of the following courses:

SPAN 431 Civilization & Culture of Spain (3)

SPAN 432 Civilization & Culture of Latin America (3)

SPAN 433 Civilization & Culture of New Mexico and the Southwest (3)

## Electives: 6 credit hours

In consulting with their program adviser, students can choose two upperlevel elective courses to complete the major.

Minor Total: 24 credit hours

#### Minor in Native American/Hispano Cultural Studies (NAHCS)

#### **Mission Statement**

The mission of the proposed Native-American/Hispano Cultural Studies (NAHS) Minor Program is to facilitate and implement the interdisciplinary study of peoples, languages, cultures, traditions and practices of the Southwest with specific emphasis on Northern New Mexico communities. The program is strengthened by the adoption of a cultural studies approach, which enables students to investigate lived realities of which they themselves are a part and where their involvement may provide clarifying insights.

#### Required Introductory course: 3 hours

NAHS 124 Introduction to Native American/Hispano Cultural Studies (3)

#### Capstone option: 3 hours required

NAHS 425 Native American /Hispanic Communication & Cultural Contexts (3)

HIST 453 History of the Southwest (3)

## Thematic Area #1: Choose six hours from the following: (6)

ANTH 413 Archaeology of the Southwest (3)

ANTH 424 Cultural Dynamics of the Southwest (3)

ANTH 456 US-Mexican Immigration (3)

ANTH 476 Indians of the Greater Southwest (3) ANTH 477 Hispanics of the Southwest (3)

HIST 215 History of New Mexico (3)

HIST 453 History of the Southwest (3)

NAHS 375 Land Grant, Acequia & Reservation Communication (3)

#### Thematic Area #2: Choose six hours from the following: (6)

SOC 493 Race & Ethnic Relations (3))

PHIL 318 Native American Philosophy (3)

HIST 160 Chicano History (3)

HIST 401 Chicano Experience (3)

HIST 403 Chicano Leadership (3)

POLS 217 Ethnic Politics (3)

NAHS 225 Ethnicity and Identity Formation (3)

### Thematic Area #3: Choose six hours from the following: (6)

MUS 472 Chicano & Latino Music in the US (3)

ANTH 435 Ritual, Festival, and Celebration in the Southwest (3)

ENGL 315 Native American Women's Literature (3)

ENGL 318 Chicano/a Literature (3)

ENGL 482 Literature of the Southwest (3)

HIST 161 Chicano History since 1900 (3)

SPAN 470 Chicano Lit of the Southwest (3)

NAHS 325 Native American/Hispano Contexts for Language and Literacy (3)

Minor total: 24 credit hours

## American Sign Language (LANG), Courses in

#### LANG 109. American Sign Language 1 (4); Fa, Sp

This course introduces the student to American Sign Language (ASL). It is interactive, and develops basic ASL competency and imparts grammatical and cultural knowledge useful to the beginning signer.

#### LANG 110. American Sign Language 2 (4); Fa, Sp

This second half of the beginning-level American Sign Language course expands the general objectives of the first course. The course continues to be interactive and develops basic ASL competency. Special attention is given to grammatical and cultural knowledge useful to the beginning signer. Prerequisite: LANG 109.

## LANG 209. American Sign Language 3 (3); Fa

This is an intermediate-level American Sign Language course. This course continues to be interactive, develops intermediate ASL competency, and grammatical and cultural knowledge useful to the intermediate signer. Prerequisite: LANG 110 or equivalent.

## LANG 210. American Sign Language 4 (3); Sp

This is a continuation of the intermediate-level American Sign Language course. This course continues to be interactive, develops intermediate ASL competency, and grammatical and cultural knowledge useful to the intermediate signer. Prerequisite: LANG 209 or equivalent.

# Native American/Hispano Cultural Studies (NAHS), Courses in

# NAHS 124. Intro to Native American/Hispano Cultural Studies (3); Fa

Interdisciplinary introduction to Native American/Hispano cultural studies emphasizing thematic areas of place, environment, ethnicity, identity, language and community.

# NAHS 225. Indo/Hispano Ethnicity and Identity Formation (3); Alt, Sp, Odd

The study of foundational concepts and research regarding the complex interrelationships and identities of Native American/Hispano ethnic communities.

# NAHS 325. Indo/Hispano Contexts for Language and Literacy (3); Alt , Sp, Even

The study of social and cultural contexts for language and literacy practices within Indo/Hispano communities.

# NAHS 375. New Mexico Land Grant, Acequia and Reservation Communities (3); Sp

Exploration of historical and contemporary community issues regarding land, water, economics, and sustainability.

# NAHS 425. Native American/Hispano Communities and Cultural Contexts (3); Sp

The study of structures and methodologies for conducting short-term research projects in cultural and social contexts.

## Spanish (SPAN), Courses in

# SPAN 101. Beginning Spanish 1 (4); Fa, Sp, Su

An introduction to the Spanish language with an emphasis on conversation and the development of the ability to read and understand the Spanish language. This course is open only to non-speakers of Spanish. One hour weekly required in the Language Learning Center in addition to four class hours.

#### SPAN 102. Beginning Spanish 2 (4); Fa, Sp, Su

A continuation of SPAN 101, also open only to non-speakers of Spanish. One hour weekly required in the Language Learning Center in addition to four class hours. Prerequisite: Span 101 or equivalent.

#### SPAN 111. Beginning Spanish as a Heritage Language 1 (4); Fa

This is a beginning course for students who grew up in a Spanish-speaking

home or community who may have comprehension, and/or may lack in oral proficiency. Emphasis is placed on the four skills of listening, speaking, reading, and writing. Community and cultural activities are utilized to enhance these skills. Prerequisite: All students must be placed into this course through the Spanish Language Placement Exam.

## SPAN 112. Beginning Spanish as a Heritage Language 2 (4); Fa

A continuation of SPAN 111. This course emphasizes the four language skills, and will focus on building vocabulary-and strengthening knowledge of grammatical skills. Prerequisite: SPAN 111 or equivalent.

## SPAN 200. Intermediate Spanish Conversation (3); Alt, Sp, Odd

Provides the student with the vocabulary necessary to interact effectively in Spanish, in practical real-life situations while also sharpening the student's oral fluency and listening comprehension. Prerequisite: SPAN 102 or permission of instructor.

#### SPAN 201. Intermediate Spanish (4); Alt, Fa, Even

For students who understand simple conversational Spanish and have studied the elements of grammar. It focuses on an intensive grammar review and includes vocabulary building with readings and communicative oral and written exercises that enhance the student's awareness of contemporary Hispanic culture. Prerequisite: SPAN 101, 102 or equivalent.

## SPAN 202. Intermediate Spanish 2 (3); Alt, Sp, Odd

This class is a second-semester, second-year Spanish grammar course that reviews and expands the study of elements of speech such as pronouns, adjectives, prepositions, and adverbs, as well as other verb moods covered in a first-year, two-semester course sequence. Its primary focus is a review of grammar in addition to developing the student's four language skills in Spanish: reading, writing, listening comprehension and speaking. The class is conducted in Spanish. Prerequisite: SPAN 201.

# SPAN 211. Intermediate Spanish as a Heritage Language 1 (4);

For Spanish heritage language learners who have completed SPAN 112 or its equivalent. This course reinforces and expands previous knowledge of Spanish with a focus on grammar. Prerequisite: SPAN 112 or an equivalent.

# SPAN 212. Intermediate Spanish as a Heritage Language 2 (4); Sp.

A continuation of SPAN 211. This course emphasizes reading, writing, and conversation. Course activities increase students' awareness of the interactions between local culture and the Spanish-speaking world. Prerequisite: SPAN 211

#### SPAN 290 - 490. Independent Study (1-4 VC); Var

Individual directed study arranged with an instructor. Prerequisite: Permission of instructor.

#### SPAN 291 - 491. Travel Study Topics (1-3 VC); Var

For students traveling in a Spanish-speaking country and/or region. Prerequisite: Participation in one of the Spanish/English immersion programs offered through legislative funding from a research public service project (RPSP).

### SPAN 300. Advanced Grammar (3); Var

This course helps students establish a solid foundation as well as functional communicative skills. Subtle but complex conceptual distinctions between Spanish and English will be analyzed and applied to oral and written skills. The course will review grammatical concepts and analysis of both spoken and written Spanish. Prerequisite: SPAN 202 or 212.

# SPAN 310. Advanced Conversation (3); Var

Course provides timely, comprehensive, and authentic video materials on current events, and the language and culture of the Hispanic world to enhance students' oral comprehension and communicative interaction. It targets intermediate students with a vocabulary of 1,500 to 2,000 words. At the

completion of the course, students will have achieved total fluency at that level. Prerequisite: SPAN 200 and 201, or permission of instructor.

## SPAN 330. Introduction to Hispanic Literature (3); Alt, Fa, Odd

This course introduces intermediate-level students to Hispanic literature and to literary analysis. The reading selections encompass authors from Spain, Spanish American and the U.S., and exemplify a variety of literary forms. The readings will expand students' awareness of the Hispanic culture and enrich their vocabulary.

# SPAN 337 - 437. Special Topics: Hispanic Literature & Culture (3); Alt, Sp, Odd

This course focuses on a particular cultural period and/or literary or intellectual movement in the Hispanic world. Taught in English. Prerequisite: Permission of instructor

# SPAN 338 - 438. Contemporary Cultural Developments in the Hispanic World (3); Alt, Sp, Odd

This course examines the recent history of Spanish-speaking countries and/or regions within the context of cultural, sociohistorical, sociolinguistic, and sociopolitical changes, and the literary and artistic works they have originated. Taught in English. Prerequisite: Permission of Instructor

## SPAN 340. Spanish Translation (3); Var

This course offers an introduction to principles of translation and interpretation dealing specifically in English to Spanish. Prerequisite: Permission of instructor.

# SPAN 354 - 454. Creative Writing Workshop in Spanish (3); Fa, 3 yr cycle

This course explores exemplary texts by selected Peninsular and Latin American authors. Through the instruction of literary techniques, students will write original poetry, short fiction and/or a play, and will develop a self-critique of their own works. Prerequisite: SPAN 201 or 202 or permission of instructor.

# SPAN 405. Film in the Hispanic World (3); Fa, 3 yr cycle

This course introduces the field of visual arts and techniques of representation. The work of major Hispanic film directors will be presented and compared. Prerequisite: Permission of instructor.

## SPAN 406. Hispanic Women Authors (3); Sp, 3 yr cycle

Designed to introduce the student to women authors in Spanish America, the course covers most genres through the works of Sor Juana Ines de la Cruz, Alfonsina Storni, Domitilia Chungara, Rosario Castellanos, Barbara Delano, and others.

#### SPAN 415. Advanced Translation (3); Var

Systematic study and contrastive exercises in translation and interpretation. Translation of texts in general conceptual fields. Prerequisite: SPAN 400 or permission of instructor.

## SPAN 424. Advanced Composition (3); Var

This course is designed to develop written proficiency and critical thinking skills through readings and discussions of a variety of texts from the Spanish-speaking global community. It guides students in their understanding of the reading selections at the textual and cultural level, with an ample analysis of vocabulary use and practice. It focuses on strategies with which students learn to compose different pieces of writing and overall develop written Spanish. The discussions focus on history, political and cultural topics pertaining to the Hispanic world. The emphasis is on development of writing skills in formal Spanish. Prerequisite: SPAN 300.

### SPAN 425. Spanish for the Profession (3); Sp

Study of the vocabulary, expressions, and cultural background to successfully interact in business and professional situations in the Hispanic world. Prerequisite: SPAN 201 or permission of instructor.

## SPAN 430. Introduction to Spanish Linguistics (3); Sp, 3 yr cycle

This course introduces the study of Spanish linguistics, including phonetics,

phonology, morphology, syntax, historical linguistics, and sociolinguistics. The course combines discussions of theoretical issues with a linguistic analysis of Spanish. Prerequisite: SPAN 300.

### SPAN 431. Civilization and Culture of Spain (3); Sp, 3 yr cycle

Provides students with a synthetic and highly accessible overview of Spanish history, literature, and culture. Prerequisite: Permission of instructor.

# SPAN 432. Civilization and Culture of Latin America (3); Sp, 3 yr cycle

Presents the Spanish-American experience of yesterday and today through the social, historical, political and literary aspects that this experience encompasses. Prerequisite: Permission of instructor.

# SPAN 433. Civilization and Culture of New Mexico and the Southwest (3); Alt, Fa, Even

Spanish cultural developments and events that have brought about ethnic, economic, political, social, literary, linguistic and historical changes, and typical features in New Mexico and in the Southwestern United States. Prerequisite: Permission of instructor.

#### SPAN 434. Practicum in Spanish (3); Var

Experiential study directed by an instructor. Prerequisite: Permission of instructor.

## SPAN 441. Spanish for the Bilingual Classroom (3); Alt, Sp, Even

This course targets students of bilingual education and presents the Spanish language as it is applied in school community settings. Use of both vernacular and formal language will be included. Spanish is the language of instruction, inclusive of student presentations/participation. Prerequisite: Permission of instructor.

# SPAN 445. Teaching of Spanish: Theory and Methodology (3); Sp, 3yr cycle

This course familiarizes prospective teachers with the philosophy, methodology, and practical techniques of teaching Spanish. Prerequisite: Permission of instructor.

## SPAN 450. Seminar in Spanish (3); Sp, 3 yr cycle

Topic to be selected by instructor.

#### SPAN 460. Hispanic Literature of the SW (3); Fa, 3 yr cycle

A study of Hispanic Southwestern literature written in English and in Spanish. The origins and evolution of this literature are discussed, from the early Spanish exploration to the most recent manifestations in every major literary genre. Prerequisite: Permission of instructor.

#### SPAN 467. History of the Spanish Language (3); Sp, 3 yr cycle

This course traces the development of the Spanish language from Latin to the present. It analyzes the cultural, literary and historical factors that have contributed to its evolution. The transformations that the language undergoes in different linguistic settings are studied in a section on sociolinguistics issues of the U.S. southwest Spanish. Prerequisite: SPAN 430 or permission of instructor

## SPAN 470. Chicano Literature of the Southwest (3); Alt, Sp, Odd

This is a survey course which studies major literary genres in Chicano literature spurred by the Chicano movement, such as essay, poetry, short story, novel and drama, and folk literature. Prerequisite: SPAN 433 or permission of instructor.

# SPAN 481. Spanish Literature I: Middle Ages to 1700 (3); Fa, 3 yr cycle

Reading of selections by major authors of the Middle Ages, Golden Age, and the Baroque from 1100-1700, focusing on the development of the literary genres. Prerequisite: SPAN 330 or permission of instructor

# SPAN 482. Spanish Literature II: 1700 to Present (3); Sp, 3 yr cycle

Readings represent key works of Spanish literature from the Enlightenment and Romanticism to the present. Works studied include prose, poetry, and drama. Prerequisite: Span 330 or permission of instructor.

## SPAN 483. Latin American Literature I: Colonial to 1900 (3); Fa, 3 yr cycle

Readings include seminal works from the discovery and conquest of the Americas to the colonial and independence periods. Prerequisites: Span 330 or permission of instructor.

## SPAN 484. Latin American Literature II: 1900 to Present (3); Sp, 3 yr cycle

Readings represent major literary works from literary movements: modernism, vanguardism, boom, and post-boom periods. Prerequisite: Span 330 or permission of instructor.

## SPAN 495. Senior Year Paper (3); Var

This directed, individualized study is required of all Spanish majors. It consists of an in-depth study of a major author or authors, school, genre, or tradition of Hispanic literature. Analytical and research skills must be demonstrated.

## **Department of Natural Resources Management**

Dr. Craig Conly, Department Chair and Associate Professor, Interim

Ivan Hilton Science Center, Room 137

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#### About

The Natural Resources Management (NRM) Department includes the disciplines of Environmental Geology and Forestry that work collaboratively to provide opportunities for students to attain an exceptional education in natural resources management. Areas of study focus on understanding natural and man-made environments and sustaining the health of humans as well as organisms and ecosystems on which humans depend for water, air, soils, minerals, fuels, foods, and esthetics. The NRM Department offers instructional programs leading to a Bachelor of Arts (B.A.) in Conservation Management and Bachelor of Science (B.S.) degrees in Environmental Geology and Forestry. Various concentrations and minors are offered within these programs. The Natural Resources Management Department also offers a Geographic Information Systems (GIS) minor and a GIS undergraduate certificate.

#### Mission of the Department of Natural Resources Management

The mission of the NRM Department academic programs is to provide students with a solid understanding of the natural environment and to improve the utilization and stewardship of land, water, and forest resources. The allied degree programs in Conservation Management, Environmental Geology, and Forestry offer high quality instruction that includes handson learning, field immersion, and laboratory experience. The Conservation Management degree provides study and employment options in the conservation arena for students who want to work in the natural environment. Both the Environmental Geology and Forestry degrees instill scientific and technical backgrounds that empower students to successfully pursue science and technology careers or proceed to advanced graduate studies. The NRM professors strive to make each student's educational experience challenging and rewarding.

#### **Faculty**

James R. Biggs, Ph.D. (Forestry)
Blanca Cespedes, Ph.D. (Forestry)
F. Craig Conley, Ph.D. (Forestry)
Kyle Earnshaw (Forestry)
William Jaremko-Wright (Geology)
Jennifer Lindline, Ph.D. (Geology)
Michael S. Petronis, Ph.D. (Geology)
Joshua L. Sloan, Ph.D. (Forestry)
Julie Tsatsaros, Ph.D. (Water Science)
Joseph P. Zebrowski, MS (Geographic Information Science)

## **Conservation Management (BA)**

Conservation Management is the procedure for maintaining a species or habitat and for turning sustainable development strategies into successful operations. The Conservation Management B.A. provides students with skills to integrate the diverse array of social, political, legal, institutional, cultural, economic and biophysical considerations inherent in attaining environmental and resource management goals. Conservation Management study prepares students for a variety of careers in research, industry, education, government, or public service. Students must complete a total of 43 to 46 hours in anthropology, biology, chemistry, forestry, and geology. The university requires at least 45 credit hours in upper (300-400 level) courses. The BA in Conservation Management requires a minor.

#### **Environmental Geology (BS)**

Environmental Geology is an interdisciplinary major concerned with the practical application of the principles of geology in the solving of environmental problems. Environmental Geology deals with earth resources,

geologic hazards, and the interaction of humans with the environment. Courses are designed to provide students with scientific knowledge, mathematical proficiency, research skills, technical abilities, and writing competencies to launch exciting and rewarding careers in the geosciences. The Environmental Geology B.S. offers three concentrations of study - Environmental Science, Geology, and Water Resources. The concentrations share a core set of chemistry, math, and physics foundational courses after which students focus on a series of upper-division courses in their intended concentration. In each concentration, students master content knowledge in basic areas of geology (earth materials, geologic hazards, and environmental law & policy), critical and reflective thinking skills, effective use of technology, and effective written and oral communication skills. All three degree tracks offer field study, laboratory experience, independent research, and elective coursework. Environmental Geology students are not required to take a minor, but those concentrating in Geology are required to take a summer field course (GEOL 375) prior to graduation. Graduates of the Environmental Geology program have excellent career opportunities in water, mineral, and energy resource exploration, resource recovery, resource management, water minimization, pollution prevention, contamination remediation, and environmental protection.

The Environmental Science concentration focuses on the application of geologic, physical, biological, and chemical principles to the study of the physical environmental and the solution of a wide range of environment problems. The Environmental Science degree track is deliberately designed to be sufficiently flexible to allow students, with close guidance from a faculty adviser, to design a major program, emphasizing a variety of specific approaches to studying earth's environment, based on a firm foundation of supporting sciences and ending with a project-oriented capstone course. The Geology concentration is designed to provide quantitative preparation for career pathways involving interdisciplinary study of the environment, with a geological emphasis. It highlights those subjects that are most relevant to society, including hydrology, geomorphology, earth materials, geochemistry, and soil science, as well as the tools and techniques for environmental geology study. The Water Resources concentration is designed to provide disciplinary and interdisciplinary preparation for positions in industries or agencies requiring diversified experience in water science and management. Coursework emphasizes surface and ground water hydrology, water science, watershed management, watershed restoration, geochemistry, and water policy.

#### Forestry (BS)

Forestry is the application of scientific principles to the sustainable management of forest resources, including a wide range of ecosystem services (e.g., alternative forest products, wildlife, medicinal herbs, and craft materials), fresh water, and biodiversity. The primary goal of the forestry program is to train technically competent forest and natural resources managers who understand the ecological notions that underpin human use of forest resources. Graduates of the Forestry Program meet all federal requirements for employment as a professional forester. Students receive training in the various techniques used to determine resource quantities and qualities, economic values, and social constraints in the management of natural resources. Students who major in forestry are not required to take a minor. A summer field course is required of all students prior to their graduation. Students who wish to pursue graduate degrees should talk to an adviser about recommended coursework.

The Forestry B.S. offers two concentrations of study – Forest Management and Wildland Fire. The Forest Management program focuses on the management of timber as well as a wide range of ecosystem services produced by private and public lands. The Wildland Fire program, one of the few in the country, offers state of the art instruction in the use and management of fire on the broad landscapes of the west. In this era of rapid environmental change, these forestry fields are in increasing demand. After graduation, New Mexico Highlands University forestry students are prepared to meet that demand and embark on exciting and rewarding careers. The NMHU Forestry Program is accredited by the Society of American Foresters.

## **Geographic Information Systems (GIS) Programs**

GIS is a computer-based database management system for capture, storage, retrieval, analysis and display of spatial data. The GIS minor and certificate program provide students with a basic proficiency with cutting edge GIS technology that can immediately be applied in the workplace, a highly marketable skill-base when seeking employment, and/or skills for pursuing an advanced degree in GIS. The GIS minor consist of 21-22 credit hours and the GIS certificate program requires 17-19 credit hours. Both programs afford students with a conceptual base and technical skills in using a desktop GIS and applying GIS across disciplines to solve real-world problems. Each GIS option includes 5 geology courses and an additional geology upper-division elective. Students who complete the GIS minor or GIS certificate program are prepared to map data for decision-making in business, environmental protection, risk assessment, utility planning & management, emergency response, land use planning, transportation planning, delivery route planning, real estate, crime prevention, and other areas.

#### **Resources and Facilities**

The Department of Natural Sciences is housed in the Ivan Hilton Science Center. Modern classrooms and spacious laboratories showcase state-of-the-art analytical equipment and modern safety features and provide students with hands-on, student-centered learning environments.

## **Natural Resources Management**

## Major in Conservation Management (BA)

#### CORE: 34 credit hours

FOR 105 Humans and Ecosystems (4)

FOR 231 Terrestrial Ecology (4)

FOR 305 Natural Resources Economics (3)

FOR 330 Natural Resources Law & Policy (3) OR GEOL 412 Geologic

Resources, Law & Environmental Policy (3)

FOR 340 Quantitative Methods (3)

FOR 412 Survey and GIS (4)

FOR 426 Professional Ethics (1)

FOR 237 Water Resources (3)

BIO 212 General Biology (4)

CHEM 211 General Chemistry (3)

CHEM 215L General Chemistry Lab (2)

## Electives: 9-12 credit hours

Upper-division electives from forestry, geology, biology or anthropology chosen in consultation with your adviser.

Major Total: 43 – 46 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Minor: 20 credit hours minimum

Proficiency/Electives to 120: 14-17 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the major and minor. Additional credit hours may be required to meet the 120 credit degree requirement if proficiency or other required courses are waived for content only. English and Math proficiency credit do not count toward the 120 credit requirement. The university requires a minimum of 45 upper division units for the degree.

## Major in Environmental Geology (BS)

#### **Geology Concentration**

## Required Core: 48 credit hours

GEOL 101 Survey of Earth Science (4)

GEOL 202 Earth History (4)

GEOL 301 Environmental Geology (4)

GEOL 317 Depositional Environments (4) GEOL 325 Earth Materials (4) GEOL 330 Structural Geology (4) FOR 340 Quantitative Methods (3) GEOL 375 Field Geology (4) FOR 412 Surveying and GIS (4) GEOL 421 Environmental Ground Water Hydrology (4) GEOL 432 Environmental Geochemistry (4) GEOL 425 Geomorphology (4) GEOL 495 Senior Geology Applications (1) Additional requirements: 26 - 28 credit hours MATH 160 Precalculus (5) MATH 211 Calculus 1 (4) MATH 252 Calculus 2 (4) CHEM 211 General Chemistry 1 (3) CHEM 215 Chemistry Lab 1 (2) Choose one of the following: PHYS 151 Algebra Physics 1 (4) ORPHYS 291 Calculus Physics 1 (5) Choose one of the following: PHYS 152 Algebra Physics 2 (4) PHYS 292 Calculus Physics 2 (5) OR

#### Electives: 6 - 9 credit hours

With the advice and consent of an adviser, students take an additional 6-9 credit hours in geology, math, or an approved science discipline.

Major Total: 80-85 credits hours Core Total: 35 credit hours Extended core: 5 credit hours Total for degree: 120-125 credit hours\*

GEOL 432 Environmental Geochemistry (4)

\*A minor is not required. Additional credit hours may exceed the total degree credit requirement if proficiency courses are required. The university requires a minimum of 45 upper-division units for the degree.

#### **Water Resources Concentration**

## Required Courses: 53 credit hours

GEOL 101 Survey of Earth Science (4)

BIOL 211 General Biology 1 (4)

GEOL 301 Environmental Geology (4)

FOR 333 Water Science (4)

FOR 340 Quantitative Methods (3)

FOR 400 Surface Hydrology (3)

FOR 408 Limnology (4)

FOR 412 Survey and Geographic Information Systems (4)

FOR 417 Watershed Management (3)

GEOL 415 Remote Sensing and Analysis (4)

GEOL 421 Environmental Ground Water Hydrology (4)

GEOL 425 Geomorphology (4)

GEOL 432 Environmental Geochemistry (4)

FOR 453 Toxicology in Life Science (3)

GEOL 495 Senior Geology Applications (1)

## Additional requirements: 22 - 23 credit hours

MATH 160 Precalculus (5)

MATH 211 Calculus 1 (4)

MATH 252 Calculus 2 (4)

CHEM 211 General Chemistry 1 (3) CHEM 215 Chemistry Lab 1 (2)

#### Choose one:

PHYS 151 Algebra Physics 1 (4)

OI

PHYS 291 Calculus Physics 1 (5)

#### Electives: 9 - 12 credit hours

With the advice and consent of an adviser, students are required to take an additional three classes (9-12 credit hours) in geology, math or an approved science discipline.

Major total: 84 - 88 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Total for degree: 124-128 credit hours\*

\*A minor is not required. Additional credit hours may exceed the total degree credit requirement if proficiency courses are required. The university requires a minimum of 45 upper-division units for the degree.

## **Environmental Science Concentration**

## Required Courses: 19 credit hours

GEOL 101 Survey of Earth Science (4)

FOR 105 Humans and Ecosystems (4)

GEOL 301 Environmental Geology (4)

FOR 320 Quantitative Methods (3)

FOR 315 Natural Resources Law/Policy (3) OR GEOL 412 Geologic

Resources, Law & Environmental Policy (3) FOR/GEOL 495 Senior Geology Applications (1)

## Additional Science Requirements: 26 - 27 credit hours

BIOL 212 General Biology 2 (4)

MATH 160 Precalculus (5)

MATH 211 Calculus 1 (4)

PHYS 151 Algebra Physics I (4) OR PHYS 291 Calculus Physics I (5)

CHEM 211 General Chemistry I (3)

CHEM 215 General Chemistry I Lab (2)

One additional foundational science or math course. (4)

## Electives: 40 upper-division credits

Forty upper-division credits in 3/400 level biology, chemistry, computer science, fire science, forestry, geology, math, physics, or an approved science discipline with the advice and consent of an adviser. (Only 4 hours below 300 permitted). Changes to your program of study may be made with advice and written consent of your adviser. Students must have at least 51 credits at the 300 level or higher and must complete 125 – 126 credit hours for the degree. Note: Students planning to continue on to graduate school are strongly encouraged to take as an elective GEOL 375 Field Geology as this is a required class in many graduate programs.

Major totals: 85-86 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Total for degree: 125-126 credit hours\*

\*A minor is not required. Additional credit hours may exceed the total degree credit requirement if proficiency courses are required. The university requires a minimum of 45 upper-division units for the degree.

## Major in Forestry (BS)

#### **Forestry Management Concentration**

## Required Courses: 54 credit hours

FOR 105 Humans & Ecosystems (4)

FOR 200 Forestry Field Practice (4)

FOR 231 Terrestrial Ecology (4)

FOR 237 Water Resources (3) FOR 305 Natural Resources Economics (3) FOR 307 Wildland Fire Management (3) FOR 310 Mensuration and Biometrics (3) FOR 313 Dendrology (3) FOR 330 Natural Resources Law and Policy (3) ORGEOL 412 Geologic Resources, Law & Environmental Policy (3) FOR 340 Quantitative Methods (3) FOR 402 Silviculture (3) FOR 410 Forest Management (3) FOR 412 Surveying and Geographic Information Systems (4) FOR 416 Soil Science (4) FOR 424 Wildland Pest Management (3) FOR 426 Professional Ethics (1) FOR 492 Applied Forestry Research (3) Additional Requirements: 16-17 credits BIOL 303 Plant Structure and Function (4) CHEM 211 General Chemistry 1 (3) CHEM 215 Chemistry Lab 1 (2) GEOL 101 Survey of Earth Science (4)

MATH 211 Calculus 1 (4)

MATH 155 Applied Calculus 1 (3)

## Electives: 6-8 credits hours

OR

Electives are selected by students, with advice and consent of their major adviser.

Major Total: 76 - 79 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Total for degree: 126-129 credit hours\*

\*A minor is not required. Additional credit hours may be required to meet the total degree credit requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the total degree credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### **Wildland Fire Concentration**

#### Required Courses: 64 credit hours

FOR 105 Humans & Ecosystems (4)

FOR 200 Forestry Field Practice (4)

FOR 231 Terrestrial Ecology (4)

FOR 237 Water Resources (3)

FOR 305 Natural Resources Economics (3)

FOR 307 Wildland Fire Management (3)

FOR 310 Mensuration and Biometrics (3)

FOR 313 Dendrology (3)

FOR 330 Natural Resources Law and Policy (3) OR GEOL 412

Geologic Resources, Law & Environmental Policy (3)

FOR 340 Quantitative Methods (3)

FOR 402 Silviculture (3)

FOR 410 Forest Management (3)

FOR 412 Surveying and Geographic Information Systems (4)

FOR 416 Soil Science (4)

FOR 424 Wildland Pest Management (3)

FOR 426 Professional Ethics (1)

FOR 451 Project Fire and Rehabilitation (3)

FOR 452 Prescribed Fire Practices (4)

FOR 456 Fire and Landscape Ecology (3)

FOR 492 Applied Forestry Research (3)

#### Additional Requirements: 16 - 17 credits

BIOL 303 Plant Structure and Function (4)

CHEM 211 General Chemistry 1 (3)

CHEM 215 Chemistry Lab 1 (2)

GEOL 101 Survey of Earth Science (4)

MATH 155 Applied Calculus 1 (3)

OR

MATH 211 Calculus 1 (4)

#### Electives: 3-6 credits hours

Electives are selected by students, with advice and consent of their major adviser.

Major Total: 83-87 credit hours Core Total: 35 credit hours Extended core: 5 credit hours

Total for degree: 123-127 credit hours\*

\*A minor is not required. Additional credit hours may be required beyond the degree minimum if proficiency courses are required or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

#### **Minor in Environmental Science**

#### Required Courses: 21 credit hours

FOR 413 Environmental & Ecological Monitoring (3)

FOR 416 Soil Science (4)

GEOL 421 Environmental Ground-Water Hydrology (4)

FOR 433 Water Science (4)

FOR 453 Toxicology in Life Science (3)

FOR 461 Atmospheric Science (3)

Minor Total: 21 credit hours

#### Minor in Geology

## Required courses: 20 credit hours

GEOL 101 Survey of Earth Science (4)

GEOL 202 Earth History (4)

GEOL 301 Environmental Geology (4)

GEOL 317 Depositional Environmental (4)

GEOL 325 Earth Materials (4)

## Electives: 3 credits hours

Choose at least one additional 3/400-level geology course for which prerequisites for that course have been satisfied.

Minor Total: 23 credit hours

#### Minor in Geographic Information Systems (GIS)

#### Required Courses: 22 credits hours

Choose one of the following:

GEOL 101 Survey of Earth (4)

FOR 105 Ecosystems & Humans (4)

POLS 151 American National Government (3)

ANTH 102 Introduction to Social Anthropology (3)

Additional requirements:

FOR 412 Surveying and GIS (4)

GEOL 415 Remote Sensing & Analysis (4)

GEOL 418 Advanced GIS (4)

GEOL 494 GIS Capstone Seminar\* (2)

#### Elective: 4-5 credit hours (to reach 22 credit hours)

Choose a 300/400-level course from geology, forestry, political science, or anthropology.

Minor Total: 22 credits hours

\*This class (existing course or selected topic) is an elective within the GIS pro-

gram that varies by discipline. The course fulfills the minor degree requirement as determined by the student's faculty adviser.

#### Minor in Wildland Fire

## Required Courses: 18 credit hours

FOR 105 Humans and Ecosystems (4)\*

FOR 231 Terrestrial Ecology (4)\*

FOR 307 Wildland Fire Management (3)

FOR 456 Fire and Landscape Ecology (3)

\*Select an additional elective for each if course is used for the major.

#### Choose one:

FOR 451 Project Fires and Post-Fire Rehabilitation (3) FOR 452 Prescribed Fire Practices (4)

## Electives: 1 - 9 depending on major\*

\*Choose electives in consultation with minor adviser.

Minor Total: 18 credits hours

Minor in Wildlife Management

## Required Courses: 18 credit hours

FOR 105 Humans and Ecosystems (4)\*

FOR 231 Terrestrial Ecology (4)\*

FOR 317 Principles of Wildlife Management (3)

FOR 420 Wildlife Habitat Management (3)

BIOL 494 Field Zoology (3)

\*Select an additional elective for each if course is used for the major.

## Electives: 1 - 9 depending on major\*

\*Choose electives in consultation with minor adviser.

Minor Total: 18 credits hour

## **GIS Certificate**

## Required Courses: 18 credit hours

Choose one of the following:

GEOL 101 Survey of Earth Science (4)

FOR 105 Ecosystems & Humans (4)

POLS 151 American National Government (3)

ANTH 102 Introduction to Social Anthropology (3)

#### Additional requirements:

FOR 412 Intro to GIS Surveying (4)

GEOL 415 Remote Sensing & Analysis (4)

GEOL 418 Advanced GIS (4)

GEOL 494 GIS Capstone Seminar (2)

Certificate Total: 18 credit hours

## Forestry (FOR), Courses in

## FOR 105. Ecosystems and Humans (4); 3, 2 Fa, Sp

A survey of environmental and ecological sciences with an introduction to the ways humans interact with and change ecosystems. The course introduces students to ecological and environmental concepts that bear on environmental issues, the current practices and management strategies utilized to preserve and sustain ecosystems, and examples of solutions to environmental and natural resources problems. Applies to NM Common Core.

## FOR 135-435. Selected Topic in Forestry (1-4 VC); Var

Course in a topic or topics in forestry. May be repeated with a change in course content.

#### FOR 200. Forestry Field Practices (4); 1, 6 Fa

This course is an intensive summer experience in which various forest types in New Mexico are visited. Forest management practices, harvest systems, and natural catastrophes will be assessed by students for their ecological repercussions. Measurement methods used in forestry will be introduced throughout

the session. This course provides training to students in the Occupational Safety and Health Administration's heavy equipment and field operations regulations, safe practices for field workers, and risk management and liability issues surrounding field work.

#### FOR 231. Terrestrial Ecology (4); 3, 2 Fa

The ecology of natural and artificial groups of terrestrial organisms used in the production of goods and services is the focus of this course. Topics include biological productivity, vegetation dynamics, biodiversity, range ecosystems, forest ecosystems, and pest populations. Prerequisite: FOR 105.

#### FOR 237. Water Resources (3); Sp

This course will explore the social, economic, environmental, historical, and technological forces that have led to our current methods of water distribution, management, and policy throughout the world. A strong historical context will be used throughout the course with a focus on New Mexico, Colorado, and the West. While the course will focus on the West, other areas of the U.S. and world will be examined as appropriate. Prerequisite: FOR 105 or instructor permission.

#### FOR 290-490. Independent Study (1-6 VC); Fa, Sp, Su

Individual directed study arranged with an instructor. Prerequisite: Permission of instructor.

## FOR 305. Natural Resources Economics (3); Alt, Sp, Even

This course provides an overview of the market economy in development and allocation of scarce resources, the economic impacts of policy measures used in natural resource systems, and the achievement of achieving environmental goals. Prerequisites: FOR 231 and ECON 217.

## FOR 307. Wildland Fire Management (3); Var

This is a course on the behavior of wildfires in forest and range communities. Methods of prescribed fire use are discussed. This course reviews methods for fuel load estimation, fire weather prediction, and fire suppression. Prerequisite: FOR 321 or instructor permission.

## FOR 310. Mensuration and Biometrics (3); Fa

Mensuration is the practice of measuring lengths and angles. Biometrics is the set of techniques for measurement and analysis of biological phenomena. Together, these topics provide a comprehensive overview of measurement and analysis techniques used in life science and allied disciplines. Prerequisite or Corequisite: MATH 140.

#### FOR 313. Dendrology (3); Fa

Dendrology studies the biology of trees and woody vegetation. This course explores tree and shrub identification with associated botanical nomenclature as well as the structure and function of shrub and tree morphology. A collection of local trees and shrubs is a requirement for the course. Prerequisite: FOR 231 or instructor permission.

## FOR 317. Principles of Wildlife Management (3); Var

This course will provide an overview of ecological principles used in the management of various groups of wildlife, the history and development of wildlife management as a science, characteristics of, and factors affecting wildlife populations, techniques and theories of management, and wildlife conservation. Prerequisites: FOR 105 and FOR 231.

#### FOR 330. Natural Resources Law & Policy (3); Alt, Sp, Odd

Natural resources and environmental ethics doctrines and applications with regard to laws and policies are examined. Introduction to laws, regulations, and policies that focus on natural and environmental concerns are the focus of this course.

## FOR 340. Quantitative Methods (3); Fa, Sp

Quantitative methods are the techniques used to numerically and statistically analyze observational and experimental data. Students will gain first-hand experience with data analysis of biological, geological, and natural resources data sets. Prerequisite or Corequisite: MATH 140 or instructor permission.

#### FOR 400. Surface Hydrology (3); Alt, Sp, Even

A course designed for upper-division undergraduate students in earth sciences and natural resources management. The course combines 1) a qualitative conceptual understanding of hydrologic process, 2) an introduction to the quantitative representation of those processes, and 3) an understanding of approaches to hydrological measurements and the uncertainties involved in those measurements. Prerequisite: GEOL 101, MATH 140, or instructor permission.

#### FOR 402. Silviculture (3); Sp

Silviculture is the set of practices to grow and manage trees. The course focuses on the factors affecting tree growth, tree stand dynamics and health, and the impact of management on ecosystem values. The ecological practices to sustainably produce forest products are emphasized. Prerequisite: FOR 231 or instructor permission.

## FOR 408. Limnology (4); 3, 1 Alt, Fa, Even

A study of the interrelationships among plants, animals, and environmental factors in aquatic ecosystems. The course is field oriented and concentrates on the development of sampling techniques and the analysis of biotic and abiotic components of nearby lakes and streams. Prerequisite: FOR237, CHEM 211 and MATH 140, or instructor permission.

FOR 410. Forest Management (3); Fa

This course focuses on the economic and scientific decisions for large tracts of land and multiple types of forest stands over landscapes. The elements of planning management activities to create the least costs and greatest benefits for a landowner are explored. Prerequisites: FOR 105, FOR 231 and MATH 140, or instructor permission.

## FOR 412. Surveying and Geographic Information Systems (4); 3, 2; Fa, Sp

The training and application of surveying and GIS databases to environmental and natural resources problems. Prerequisites: MATH 140 with a minimum grade of C or instructor permission.

#### FOR 413. Ecological and Environmental Monitoring (3)

Monitoring is the observation of treatment effects or the condition of natural and human systems over time. Many systems are monitored for pollutants and regulatory compliance, adverse outcomes of environmental management practices, and to determine trends in animal and plant populations. The course explores 1) roles of monitoring in environmental management and ecology; 2) considerations in designing monitoring programs; 3) sampling methodologies for soil conditions, water quality, animal and plant populations, and responses to treatments; and 4) uses of monitoring results. Prerequisites: CHEM 212, and MATH 140.

#### FOR 416. Soil Science (4); 3, 2 Fa

This course provides students with basic soil science concepts. The physical, chemical and ecological properties of soils are applied to soil classification, genesis, fertility, productivity, irrigation and erosion. Prerequisites: BIOL 212, CHEM 211 and MATH 140.

#### FOR 417. Watershed Management (3)

This course will emphasize the interdisciplinary characteristics of watershed management. The need to incorporate ecological and socioeconomic factors when planning and implementing programs to achieve sustainable, socially viable natural resource development is emphasized. Prerequisites: FOR 231 and FOR 330 or instructor permission.

## FOR 418. Aquatic Ecology (4); 3, 2 Alt, Fa, Odd

This course examines the biological, chemical, and physical features of aquatic environments and relates them to general ecological concepts and environmental concerns. The course focuses on the physiological adaptations of species to the aquatic environment and invertebrate and fish community structure. Additionally, this course will examine both the negative and positive impacts that anthropogenic activities have on the ecology of aquatic systems. Prerequisites: BIOL 212, CHEM 211, and MATH 140.

## FOR 420. Wildlife Habitat Management (3); Alt, Sp, Even

This course examines the principles and practice of wildlife management with an emphasis on habitats, distribution, abundance and legal considerations. Prerequisite: FOR 231.

## FOR 424. Wildland Pest Management (3); 3, 2 Fa

A pest is an organism that interferes with human activities. Pests annually cause large losses of food and wood, as well as damage to infrastructure and ecosystem services. This course explores major wildland pest organisms, and practices for management of their populations. Students will learn about management practices for insect, weed, pathogen and vertebrate animal pests, such as integrated pest management, cultural management, pesticide use, and biological control. Prerequisites: CHEM 211 and FOR 231.

#### FOR 426. Professional Ethics (1); Sp

Natural and environmental resources professionals may work for public agencies, wood products corporations, consulting firms, or private contractors. Professional ethics is the set of decision guidelines for dealing with various landowners, the conduct of professional and business activities, and the conservation of resources for future generations. This course explores common ethical issues for natural resources professionals. Prerequisite: FOR 105.

#### FOR 433. Water Science (4); 3, 2 Var

This is a course focused on the standard methods of water analysis and interpretation of results for surface and ground waters, water supply systems, and wastewater discharges. The course will focus on coliform bacteria, nutrients, organic matter, heavy metals, pesticides, and water quality standards. Prerequisites: FOR 237, CHEM 211, and MATH 140 or instructor permission.

## FOR 451. Project Fires and Post-Fire Rehabilitation (3); Var

This class is designed to investigate the potential problems resulting from fires including erosion on slopes and in stream channels, sediment and debris jams in streams, weed infestations, loss of vegetation and forest cover, hazards from fire-killed trees falling, and potential damage from post-fire activities, like salvage logging. One Saturday field trip is mandatory. Prerequisite: FOR 405.

## FOR 452. Prescribed Fire Practices (4); 3, 2; Var

Prescribed fires are used to meet management objectives of fuel reduction and ecosystem restoration. This course explores the design, planning, conduct, and monitoring in prescribed fire utilization. The course includes two mandatory Saturday field trips and participation in a prescribed fire. Prerequisite: FOR 105, FOR 318, or permission of instructor.

## FOR 453. Toxicology in Life Sciences (3); Var

Students will develop an understanding of the general process of conducting release, contamination, and risk assessments. Furthermore, students will be able to understand and work with federal and state guidelines and regulations that bear on the conduct of environmental public health investigations. The ultimate goal is to equip students with knowledge and skills that are utilized to assess the general impact of substances on human health. Prerequisite: CHEM 211 or permission of instructor.

#### FOR 456. Fire and Landscape Ecology (3); Var

This class investigates the landscape-scale effects of wildfires, as well as the ecology of fire in a variety of ecosystems and includes the effects of fire on plants, animals, soils, water and air. The course emphasizes the prediction and characterization of fire effects over time and space as well as the role of fire in restoration ecology. Case studies of restoration projects using fire in prairies, ponderosa pine and white bark forests will be examined. Prerequisites: CHEM 211, FOR 231 and FOR 307.

## FOR 461. Atmospheric Science (3); Var

The physical structure and dynamics of the atmosphere are explored. Air pollutant movement, dissipation, and chemistry will be discussed. Weather phenomena and local ventilation patterns will be discussed in terms and of smoke and air pollutant dispersion, fire behavior, and pesticide sprays. Prerequisites: CHEM 211, and MATH 140.

#### FOR 492. Applied Forestry Research (3); Sp

This capstone course is designed for students to participate in an applied forest research project where they are required to incorporate the results of their academic preparation. Each class will pursue research toward a forest management hypothesis or question chosen by the instructor. Each student will investigate a specific issue of a broader question. Students will present their data at NMHU Research Day or a meeting of recognized scientific society. Prerequisite: Senior classification.

#### FOR 499. Independent Research (1-6 VC); Fa, Sp, Su

Study of a special topic in natural resources management in an individual, directed research-based project arranged with an individual instructor. Instructor permission required.

## Geology - Environmental (GEOL), Courses in

#### GEOL 101. Survey of Earth Science (4); 3, 2 Fa, Sp

An introduction to the broad spectrum of modern earth sciences, including astronomy, meteorology, oceanography, and physical geology for the science and nonscience major student. Volcanoes, earthquakes, continental drift, glaciers, wind action, groundwater, rivers, and landslides are some of the topics discussed. NM Common Core Course Number: GEOL 1114.

## GEOL 105. The Planets (4); 3, 2 Var

A study of the eight planets in our solar system, with emphasis on geologic and atmospheric processes. Topics include the study of faults and tectonic features, impact craters, evolution and internal structures, atmospheres, meteorites, comets, asteroids, and analysis of spacecraft images. Applies to NM Common Core.

#### GEOL 202. Earth History (4); 3, 2 Sp

A study of the 4.5 billion-year history of the earth based on information derived from rocks, minerals, and fossils. Trilobites, dinosaurs, and saber tooth tigers are but a few of the organisms to be investigated. Prerequisite: GEOL 101. NM Common Core Course Number GEOL 1214.

#### GEOL 235 - 435. Selected Topic in Geology (1-4 VC); Var

Course in topic or topics in geology. May be repeated with a change in content.

## GEOL 290 - 490. Independent Study (1-4 VC); Fa, Sp, Su

Individual study arranged with an instructor. Prerequisite: Permission of instructor.

## GEOL 301. Environmental Geology (4); 3, 2 Sp

A study of the human interactions with the earth, its resources, and natural hazards. Includes instruction in the geological principles that can be utilized to both prevent and ameliorate environmental problems. Prerequisite: GEOL 101.

#### GEOL 317. Depositional Environments (4); 3, 2 Alt, Fa, Even

Survey of sedimentary rock types, principles of description and classification, sediment genesis and transport, distribution and origin of sedimentary deposits. Includes paleoenvironmental determinations from analysis of modern marine, transitional, and continental environments with the information applied to problems in environmental geology. Course includes an investigation of evolution of life on a dynamic earth. The course will investigate stratigraphic and paleontologic principles to aid in paleoenvironmental interpretation and evolutionary studies. Students will gain an appreciation of the dynamic nature of the earth and the importance of scientific thought processes. Laboratory portion of the course emphasizes lecture topics through hands-on laboratory experiences, including several field trips. Prerequisites: GEOL 101.

## GEOL 320. Mineralogy (4); 3, 2 Var

A study of the fundamental aspects of mineralogy, including crystal symmetry, crystal structures, crystal chemistry, and the physical properties of minerals. Students will practice hand specimen identification, optical mineralogy, and powder X-ray diffractometry towards the study of elected mineral groups. Prerequisite: GEOL 101 or permission of instructor.

#### GEOL 321. Petrology (4); 3, 2 Var

An introduction to the fundamentals of igneous and metamorphic rocks. The lecture will focus on the experimental and field evidence for interpreting rock associations and the interplay between igneous and metamorphic rock formation and the plate tectonic model. Topics include textures, structures, microscopic identification, geochemistry, and rock classification as a background for discussing rock origins. Prerequisite: GEOL 101, 320, or permission of instructor.

#### GEOL 325. Earth Materials (4); 3, 2 Fa

A study of the origin, identification, and significance of geologic materials and processes. The course blends basic descriptive aspects with theory and quantitative analysis. Course objectives include the following: the recognition of major rock-forming minerals and other selected minerals in hand specimen and thin section; the mastery of hand specimen and petrographic microscope analyses for mineral identification and rock interpretation; and the ability to relate crystal chemistry, crystallographic alignment, and physical attributes of a mineral to its identification, as well as rock petrogenesis. Prerequisite: GEOL 101.

#### GEOL 330. Structural Geology (4); 3, 2 Alt, Fa, Odd

A detailed study of the forces acting on the earth's crust and a resolution of these forces in terms of joints, faults, folds, uplifts, and related phenomena. Prerequisites: GEOL 101, MATH 140, and MATH 160 or by permission of instructor.

#### GEOL 350. Seminar in Geology (3); Var

Seminar course in topic or topics in geology.

## GEOL 375. Field Geology (4); 0, 12 Su

Principles of geologic mapping, including the use of a Brunton compass, barometer, hand-level, plane table, and other instruments. The course also includes the solution of actual field problems and preparation of reports. Prerequisite: GEOL 101, 317, 330, or permission of instructor.

## GEOL 412. Geologic Resources, Laws, and Environmental Policies (3); Alt, Sp, Even

A study of the policies that protect public and private lands and communities in from hard-rock mining impacts. The course will briefly cover the nature and origin of the earth's rock and mineral resources, methods of resource extraction, and impacts on the environment. The course will thoroughly cover the major types of regional and federal environmental policies, discuss the roles of the major players in the public policy process, and consider how to use science to inform the debate and remediate or lessen mining impacts. The class will study the 1872 Mining Law which grants fee and open occupation, exploration, and purchase of public lands to U.S. citizens. We will also study The 1993 New Mexico Mining Act that improved regulation of mining at the state level will also be covered. Selected NM hard-rock mining cases and issues relevant to the southwest will also be reviewed. Prerequisite: GEOL 101 or an introductory physical science laboratory course.

## GEOL 415. Remote Sensing and Analysis (4); 3, 2 Fa

Instruction in remote sensing theory, applications, and case studies, and exposure to and practice with airborne and satellite remote sensing and image processing. Students will be able to acquire data, process the images, create appropriate data, analyze the accuracy of the results, and utilize the data for specific applications. Prerequisites: FOR 412 and MATH 140 with at least a C or better, or permission of instructor.

## GEOL 418. Advanced Geographic Information Systems (4); 3 ,2 Sp

A scheme of hardware, software, and procedures designed to support the capture, management, manipulation, analysis, modeling and display of spatially referenced data for solving complex planning and management problems. GIS applications in both spatial information (maps) and databases to perform analytical studies. The course will build upon knowledge and expe-

rience in GIS, gained in the introductory course to provide students with an understanding of cartographic and geodetic concepts, impacting GIS analysis, filed data collection techniques with global positioning systems and handheld computer mapping software, effective map design, and modeling topographic and statistical surfaces. Prerequisites: FOR 412 and MATH 140 with at least a C or better, or permission of instructor.

## GEOL 421. Environmental Groundwater Hydrology (4); 3, 2 Alt, Sp, Odd

Study of the origin, movement, method of entrapment, and removal of subsurface waters. Course includes extensive discussion of problems associated with groundwater pollution and remediation. Prerequisites: GEOL 101, MATH 155 or MATH 211.

## GEOL 422. Genesis and Environmental Impact of Earth's Resources (3); Var

Study of the distribution, mineralogy, classification, modes of occurrence, and economic implications to industry and world affairs of mineral deposits. Prerequisites: GEOL 101 and 325 or permission of instructor.

## GEOL 424. Environmental Geophysics (4); 3, 2 Alt, Fa, Even

Instruction in the geophysical tools, processes and concepts applied in environmental geology. Processes, e.g., volcanism, plate tectonics, mountain building, and climates, are discussed in the context of the earth and other planets. Prerequisites: GEOL 101, PHYS 151, MATH 160, or permission of instructor.

## GEOL 425. Geomorphology (4); 3, 2 Alt, Sp, Odd

This course is an introduction to the description of landforms and landscapes on the earth's surface. Emphasis is placed on the basic processes that govern landform evolution, human impact on land surfaces, and on the history of geomorphic study. Several field trips are required. Prerequisite: GEOL 101, GEOL 325, PHYS 151, MATH 160, or permission of instructor.

#### GEOL 432. Environmental Geochemistry (4); 3, 2 Alt, Sp, Even

A study of the chemistry of the earth, including mineral mobility, cosmochemistry, chemical weathering, digenesis, igneous and metamorphic chemistry, stable isotopes, pollution, and the thermodynamics and kinetics associated with these systems. Prerequisites: GEOL 101, CHEM 211 and 215, MATH 160, or by permission of instructor.

## GEOL 494. GIS: Capstone Seminar (2); Fa, Sp

Individual, directed research study arranged with an instructor. Students will conduct an independent research project involving GIS and/or remote sensing analysis applied to a subject of study associated with their discipline. Each student will present a written report and applied GIS project to his or her mentor. All students will be responsible for demonstrating how GIS technology has enabled them to address a spatial problem more effectively. Prerequisites: FOR 412, GEOL 415, and GEOL 418.

## GEOL 495. Senior Geology Applications (1); Fa, Sp

Required class for all graduating seniors. The purpose of the course will be is to assess the student's understanding of environmental geology, critical thinking, and applications to geology and research methods. Assessment will consist of oral and written examinations and problem solving. Prerequisite: Permission of instructor.

## GEOL 499. Independent Research in Geology (1-4 VC); Fa, Sp, Su

Individual, directed research arranged with an instructor. Prerequisite: Permission of instructor.

## **Department of Nursing**

Jeanie Flood, Director, Ph.D., RN, IBCLC

Engineering Building, Room 101 www.nmhu.edu/nursing 505.426.2203

E-mail: nursing@nmhu.edu For enrollment inquiries, please e-mail hboudreau@nmhu.edu

#### Mission of the Department of Nursing

The mission of the Department of Nursing is to prepare quality nurse health care providers through excellence in education, scholarship and service. This program builds on the strength of the licensed registered nurse and challenges the individuals enrolled in this program to expand their critical thinking for new professional nursing roles, methods of health care delivery and approaches to health care practice issues.

#### Faculty

Beatrice Hurtado, RN, MSN Siri Gurunam Kaur Khalsa, CNP, MSN, BSN Sandra Gardner, Ph.D., RN, MA, MSN Jeanie Flood, Director, Ph.D., RN, IBCLC

#### **Resources and Facilities**

The Department of Nursing is located in the Engineering Building. Offices of the department and a classroom used by the department are available in the building. The Department of Nursing cooperates with other academic areas within the university to allow for students to take courses besides nursing to meet the general education core requirements of the baccalaureate degree.

## Nursing

#### Nursing (BSN)

The RN-to-BSN Program of study is specifically designed for the registered nurse student to earn a baccalaureate degree. The RN-BSN Program is only available to students with a valid license to practice as a registered nurse and who hold an associate degree or diploma in nursing. Baccalaureate nursing education prepares professional nurses who have a strong foundation in liberal education. The RN-BSN Program allows registered nurses to build on core nursing knowledge and experience, but through their program, expand their knowledge base as leaders in the profession. Upon completion of the program, graduates will be prepared for positions in patient care, leadership, and community health and will be qualified to apply for advanced work in nursing at the master's level. This is an on-line program, and practicums will be done in the student's state of residence.

#### Requirements for Admission to the RN-BSN Completion Program

Graduate of an approved associate degree or diploma program in nursing from the United States

Valid unencumbered U.S. RN license prior to program start date

Cumulative minimum GPA of 2.5 on a 4.0 scale

As long as the student meets the nursing program required prerequisites listed below, and the majority of general education core courses, selected general education core courses can be taken along with upper division nursing courses.

Applicant must apply for undergraduate admission to New Mexico Highlands University and apply to the RN-BSN Program. Acceptance to New Mexico Highlands University does not guarantee acceptance into the RN-BSN Program.

Have official transcripts sent from all previously attended colleges and universities to the RN-BSN program. Even if you only took one class or credits are displayed on another transcript, we need official transcripts sent from all institutions.

All application materials must be received by June 30th for fall entry and

October 30th for spring entry.

Nursing program required prerequisites:

- Microbiology
- Anatomy and Physiology I
- Anatomy and Physiology II
- Life Span Developmental Psychology
- Introduction to Psychology
- Nutrition
- Introduction to Sociology or Anthropology
- Statistics
- Majority of general education core

Only college courses completed with a grade of C or better will transfer, including general core courses.

#### Nursing (BSN)

## Major Course Requirements: 32credit hours

NURS 310 RN-BSN Bridge Course (2)

NURS 320 Evidence Based Applications in Health Assessment (3)

NURS 332 Introduction to Nursing Informatics (3)

NURS 340 Advancement of Professional Nursing (3)

NURS 360 Cultural Competencies & Health Care (3)

NURS 370 Nursing Research & Evidence Based Practice (3)

NURS 431 Community Health Nursing (3)

NURS 432 Health Care Policy (3)

NURS 447 Community Health Practice (3)

NURS 451 Seminar on Professional Nursing Leadership (3)

NURS 452 Nursing Leadership Practicum (3)
Major Total: 32 credit hours (nursing upper division)
Core Total: 35 (includes required prerequisites)

Extended core: 5 credit hours

Upper Division: 30 (RN license nursing credits)
Proficiency/Electives to 120: 18 credit hours\*

Total for degree: 120 credit hours

\*A minor is not required. Additional credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived. Nursing prerequisites may apply to the core total but credits are only counted once. The university requires a minimum of 45 upper-division units for the degree.

## Nursing (NURS), Courses in

## NURS 310. RN-BSN Bridge Course (2); Fa, Sp

This course brings together knowledge, and concepts, that are basic to nursing curriculum: Critical thinking, problem solving, and the spirit of inquiry. Nursing literature will be discussed regarding the reasons for completing the BSN program for nurses. Nursing scholarly writing, APA formatting, electronic reference databases and literature review are discussed to assist the student with developing professional writing skills. The course highlights how to use the NMHU learning management system for nursing courses, and other computer skills needed for this curriculum. Student expectations in the RN-BSN program are presented.

## NURS 320. Evidence Based Application in Health Assessment (3); Fa

This course focuses on expanding the basic health assessment skills necessary for critical thinking in professional nursing. Emphasis is on identification of normal findings, with developmental and cultural variations. The course is designed to assist the student to differentiate between normal and abnormal findings, as well as furthering the development of the students' assessment skills. Lab practice of assessment skills will be included within this course. Prerequisite or Corequisite: NURS 340.

## NURS 332. Intro to Nursing Informatics (3); Su

This course focuses on the role of the importance of information systems and technology to nursing practice, education, research, and administration. Students will understand the importance of becoming knowledge workers, and develop skills for information literacy. The emphasis of the course is to provide the student with the expertise and knowledge to function effectively in the modern health care information technology environment.

#### NURS 340. Advancement of Professional Nursing (3); Fa, Sp

This course focuses on nursing practice foundations for continuing development of the student's knowledge essential for functioning in a rapidly changing health care system. Content includes professional issues, quality improvement, safe practice, interdisciplinary collaboration, and influences of socio-cultural-political-economic factors on health care delivery systems.

## NURS 360. Cultural Competencies & Health Care (3); Fa

This course explores the role of the nurse practicing in culturally diverse health care delivery systems. Students will learn how to increase their skills in providing culturally competent care for patients across the lifespan. Skills needed to work collaboratively with health care workers from diverse backgrounds will also be emphasized. Prerequisite or Corequisite: NURS 340.

## NURS 370. Nursing Research & Evidence Based Practice (3); Sp

This course teaches skills to increase the student's sense on inquiry essential to evidence based practice in nursing. Skills will be taught in scholarly literature search, and the process of evaluating material for the application in the clinical setting to obtain better patient care outcomes. Prerequisite or Corequisites: NURS 340

## NURS 431. Community Health Nursing (3); Sp

This theory course focuses on the knowledge needed for community/public health nursing practice. Concepts presented discuss the nursing care of families, groups and communities with an emphasis on community assessment, health promotion, risk reduction, disease prevention and health maintenance. Special emphasis will focus on community health nursing in diverse cultures and rural communities. Prerequisites: NURS 340

## NURS 447. Community Health Nursing Practicum (3); Sp

This course provides clinical experience in community and public health nursing focusing on the application of community health nursing principles for the care of families, groups and communities. Clinical experiences will have an emphasis on community assessment, health promotion, risk reduction, disease prevention and health maintenance. Special emphasis will focus on community health nursing in diverse cultures and rural communities. Prerequisites: NURS 340, and Math 145. Prerequisite or Corequisite: NURS 431.

## NURS 432. Health Care Policy (3); Su

This course is designed to introduce students to health policy, and the regulatory environment for health care. Health care policies that directly or indirectly influence nursing practice as well as the functioning of the healthcare system will be presented. Discussion about how healthcare policy shapes the quality and safety of the practice environment and healthcare provided in different practice settings. Explanation of how the regulatory agencies define the boundaries of nursing practice and the role of these agencies will be identified.

## NURS 451. Seminar on Professional Nursing Leadership (3); Fa

This course focuses on leadership and management principles and functions essential to the practice of professional nursing. Political, social, cultural, legal and ethical issues are explored from a leader's viewpoint. Nursing leaders from diverse health care settings will be studied to determine their influence on the nursing profession. Prerequisites: All 300-level NURS courses, and NURS 431 and NURS 447

## NURS 452. Nursing Management Practicum (3); Fa

This clinical course facilitates the application of the leadership and management principles from course NURS 451 through leadership projects and activities with health care settings in the community. Prerequisites: All 300

level NURS courses, MATH 145, and NURS 431 and NURS 447. Prerequisite or Corequisite: NURS 451

# Department of Sociology, Anthropology, & Criminal Justice

Dr. Tom Ward, Department Chair

Lora Magnum Shields Science Building, Room 341

505.454.3196 FAX: 505.454.3331 E-mail: tsward@nmhu.edu

## Mission of the Department of Sociology, Anthropology and Criminal Justice

The mission of the Department of Sociology, Anthropology and Criminal Justice is to contribute to meeting the educational and research needs in sociology, anthropology, criminal justice and the related fields; contribute to meeting the career needs in social services and social sciences, tribal, state, and federal career requirements, as well as contribute to training for careers in education, law, public service, and other social science fields; contribute to meeting the need for secondary school teacher certification in sociology and/or anthropology; and to provide sociocultural service and expertise for the region, as well as the greater global community.

#### Faculty

Rebecca Alvarez, Ph.D. (Sociology/Criminal Justice)

Erika Derkas, Ph.D. (Sociology)

Gloria Gadsden, Ph.D. (Sociology/Criminal Justice)

Mario Gonzales, Ph.D. (Anthropology)

Warren Lail, Ph.D., J.D. (Anthropology)

Monica Rossetti, MA (Sociology/Criminal Justice)

Linda Silber, Ph.D. (Sociology/Criminal Justice)

Orit Tamir, Ph.D. (Anthropology)

Thomas Ward, Ph.D. (Sociology)

Sociology and Anthropology (B.A.)

The disciplines of sociology and anthropology combine to offer a holistic approach to the study of humankind. The program offers both Bachelor of Arts and Bachelor of Science degree options with four possible emphases: sociology, anthropology, criminology, and American Indian studies.

The program emphasizes an applied approach to study of society and human culture. Small classes provide an enriched educational environment for both students and faculty. Career opportunities include preparation for graduate studies, teaching, cultural resource management, and practice in federal, state, and local agencies, as well as in the nonprofit sector.

## Major in Sociology and Anthropology (B.S.)

For a Bachelor of Science degree, complete requirements for bachelor of arts major in sociology and anthropology plus: complete a minor of at least 20 credits in one of the science fields other than sociology and anthropology, or complete a combined science minor, or complete a second major in a bachelor of science degree program, or complete a two-year degree in a science filed; and complete eight credits in mathematics, including Math 211.

#### Criminal Justice Studies (B.A.)

A bachelor's degree in criminal justice studies provides an excellent foundation for students interested in working within the fields of law, corrections, security, probation and parole among others. In addition, it offers thorough preparation for those interested in pursuing a graduate degree in sociology, criminology/criminal justice, law, social work, public administration, public policy, or a closely related field. The criminal justice system is diverse, and professionals working within the field must have a solid understanding of matters pertaining to race, gender, and class. The program is designed with this objective in mind.

## **Resources and Facilities**

Northern New Mexico provides an outstanding context for social and cultural studies at New Mexico Highlands University. Students may engage in field archaeological digs, ethnographic research, and in practicum experiences. Additionally, students have the opportunity to conduct research in our

anthropology lab. Studies of human behavior emphasize field data and computer applications for analysis and interpretation.

The department provides a computer laboratory for student use. Students have access to word processing, spreadsheets, and statistical packages, as well as the Internet.

Student professional societies and organizations such as the Sociology Club and/or membership in regional or national professional associations provide opportunities for student participation and program enrichment beyond the classroom.

## Sociology, Anthropology and Criminal Justice

## Associate Degree in Social Behavioral Sciences (AA)

The associate of arts degree in Social and Behavioral Sciences includes courses in general education and in Anthropology, Criminal Justice, Psychology, Sociology or Women's Studies, constituting a total two-year curriculum. The intent of this program is to provide a foundation that allows for the completion of a bachelors of arts degree in approximately two years.

#### Required courses: 25 credit hours

MATH 145 Intro to Statistics (3)(counts toward core requirements)

SOC 152 Introduction to Sociology (3) PSY 101 Psychology and Society (3)

ANTH 102 Intro to Sociocultural Anthropology (3)

PSY 301 or SOC/ANTH 330 Research Methods (3)

#### Electives: 12 credits in social and behavioral sciences (12)

Major Total: 25 credit hours Core Total: 35 credit hours Extended Core: 5 credit hours Total for Degree: 65 credit hours\*

\*Total units for the degree may exceed 65 credit hours if proficiency courses are required. The University requires a minimum of 65 credit hours for this degree.

#### Major in Sociology and Anthropology (BA)

## Required core: 22 credit hours

SOC 152 Introduction to Sociology (3)

ANTH 102 Introduction to Sociocultural Anthropology (3)

OR

ANTH 103 Introduction to Physical Anthropology/ Archaeology (3)

SOC/ANTH 300 Sociocultural Theory (3)

SOC/ANTH 330 Research Methods Social Relations (3)

SOC/ANTH 4XX 400 level elective (3)

Choose one course from the following:

ANTH 274 Indian Cultures of North America (3)

ANTH 374 Indian Cultures of Central America (3)

ANTH 474 Contemporary Indian Issues (3)

ANTH 476 Indians of the Greater Southwest (3)

ANTH 477 The Hispanic Southwest (3)

## Choose one course from the following:

SOC 323 Deviant Behavior (3)

SOC 429 Gender, Society, & Culture (3)

SOC 412 Social Stratification (3)

SOC 427 Criminology (3)

SOC 431 Political Sociology (3)

SOC 493 Race & Ethnic Relations (3)

SOC/ANTH core: 21 credit hours

Emphasis: 21 credit hours minimum\*
Minor: 20 credit hours minimum

Core Total: 35 credit hours Extended core: 5 credit hours

## Proficiency/Electives to 120: 17 credit hours\* Total for degree: 120 credit hours

\*An emphasis is required (see below). A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

Students must choose an emphasis from the following list to complete the major:

#### **American Indian Emphasis**

#### Required courses: 12 credit hours

ANTH 274 Indian Cultures of North America (3) ANTH 374 Indian Cultures of Central America (3) ANTH 474 Contemporary Indian Issues (3)

ANTH 476 Indians of the Southwest (3)

#### Electives: 9 credit hours

Select in consultation with your adviser.

Emphasis Total: 21 credit hours Major Total: 43 credit hours Minor: 20 credit hours minimum Core Total: 35 credit hours Extended core: 5 credit hours?

Proficiency/Electives to 120: 17 credit hours\*

Total for degree: 120 credit hours

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

#### **Anthropology Emphasis**

#### Required courses: 9 credit hours

Select one course from each of the following categories:

## Physical Anthropology/Archaeology

ANTH 103 Introduction to Physical Anthropology and Archaeology (3)

ANTH 410 Method and Theory in Archaeology (3)

## Social Cultural Anthropology

ANTH 102 Introduction to Sociocultural Anthropology (3)

ANTH 415 Development & Sociocultural Change (3)

ANTH 422 Religion & Culture (3)

ANTH 461 Communication and Culture (3)

#### Applied Anthropology

ANTH 442 Forensic Anthropology (3)

ANTH 480 Issues Applied Anthropology (3)

ANTH 481 Cultural Resource Management (3)

SOC/ANTH 456 U.S.-Mexico Immigration: Border Issues (3)

## Electives: 12 credit hours

Select in consultation with your adviser.

Emphasis Total: 21 credit hours Major Total: 43 credit hours Minor: 20 credit hours minimum Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/Electives to 120: 17 credit hours\*

Total for degree: 120 credit hours

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

## **Criminology Emphasis**

## Required courses: 25 credit hours

SOC 231 Criminal Justice System (3)

SOC 427 Criminology (3)

SOC 428 Comparative Systems of Social Control (3)

SOC 430 Applied Social Research & Data Analysis (4)

SOC 498 Field Experience (1-4)

## Select three courses in consultation with your adviser:

SOC 283 Social Problems (3)

SOC 323 Deviant Behavior (3)

SOC 327 Juvenile Delinquency & Justice (3)

SOC 329 Institutional Corrections (3)

POLS XXX Law Elective (3)

ANTH 442 Forensic Anthropology (3)

ANTH 461 Communication & Culture (3)

Emphasis Total: 25 credit hours

Major Total: 47 credit hours

Minor: 20 credit hours minimum

Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/Electives to 120: 13 credit hours\*

Total for degree: 120 credit hours

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

#### **Sociology Emphasis**

## Required courses: 13 credit hours

SOC 283 Social Problems (3)

SOC 412 Social Stratification (3)

SOC 430 Applied Social Research & Data Analysis (4)

SOC 493 Race & Ethnic Relations (3)

#### Electives: 9 credit hours

Select in consultation with your adviser.

Emphasis Total: 22 credit hours

Major Total: 44 credit hours Minor: 20 credit hours minimum

Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/Electives to 120: 16 credit hours\*

Total for degree: 120 credit hours

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

#### Minor in Anthropology

## Required courses: 9 credit hours

SOC 152 Introduction to Sociology (3)

ANTH102 Introduction to Sociocultural Anthropology (3)

SOC/ANTH 300 Sociocultural Theory (3)

#### Electives: 12 credit hours

Select in consultation with your adviser.

Minor Total: 21 credit hours

## Minor in Sociology

## Required courses: 9 credit hours

SOC 152 Introduction to Sociology (3)

ANTH 102 Introduction to Sociocultural Anthropology (3)

SOC 300 Sociocultural Theory (3)

#### Electives: 12 credit hours

Select in consultation with your adviser.

## Minor Total: 21 credit hours

#### **Criminal Justice Studies (BA)**

#### Required core courses: 18 credit hours

SOC 152 Introduction to Sociology (3)

SOC 231 The Criminal Justice System (3)

SOC 327 Juvenile Delinquency and Justice (3)

SOC 329 Institutional Corrections (3)

SOC 427 Criminology (3)

SOC 493 Race & Ethnic Relations (3)

## Choose one course in cultural theory (3 credit hours):

SOC 300 Sociocultural Theory (3)

SOC 439 Classical Sociological Theories (3)

ANTH 300 Sociocultural Theory (3)

## Choose one course in Research Methods 1 (3-4 credit hours):

PSY 301 Psychological Research Methods (4)

SW 330 Research Methods 1 (3)

SOC/ANTH 330 Research Methods in Social Relations (4)

#### Choose one course in Research Methods 2 (3-4 credit hours):

PSY 302 Statistics for the Behavioral Science (4)

SW 430 Research Methods 2 (3)

SOC 430 Applied Social Research and Data Analysis (4)

#### Elective courses: 18 credit hours

CJS 310 Process & Procedure of Criminal Law (3)

POLS 314 Introduction to the Law (3)

CJS 315 Issues in the Criminal Justice System (3)

CJS 460 Approaches to Dispute Resolution (3)

PSY 408 Drugs & Behavior (3)

PSY/CJS 409 Domestic & Sexual Violence (3)

SOC/ANTH 428 Comparative Systems of Social Control (3)

ANTH 442 Forensic Anthropology (3)

CJS 301 Policing (3)

CJS 382 Terrorism (3)

SW 432 Field Practicum (4)

OR

SOC 498 Field Experience (1-4)

Major Total: 45-47 credit hours

Minor Total: 20 credit hours minimum

Core Total: 35 credit hours Extended Core: 5 credit hours

Proficiency/Electives to 120: 13-15 credit hours\*

Total for degree: 120 credit hours

#### **Minor in Criminal Justice**

## Required Core Courses: 15 credit hours

SOC 152 Introduction to Sociology (3)

SOC 231 Criminal Justice System (3)

SOC 329 Institutional Corrections (3)

SOC 427 Criminology (3)

SOC 493 Race and Ethnic Relations (3) OR SOC 429 Gender, Culture and Society (3)

OR

SOC 412 Social Stratification (3)

#### Elective Courses: 6 credit hours

CJS 310 Process & Procedure of Criminal Law (3)

POLS 314 Introduction to the Law (3)

CJS 315 Issues in the Criminal Justice System (3)

SOC 323 Deviant Behavior (3)

CJS 460 Approaches to Dispute Resolution (3)

PSY 408 Drugs & Behavior (3)

PSY/CJS 409 Domestic & Sexual Violence (3)

SOC/ANTH 428 Comparative Systems of Social Control (3)

ANTH 442 Forensic Anthropology (3)

CJS 301 Law Enforcement (3)

CJS 382 Terrorism (3)

SW 432 Field Practicum (4)

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional credit hours may be required to meet the 120 credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree

## Anthropology (ANTH), Courses in

## ANTH 102. Introduction to Sociocultural Anthropology (3); Fa, Sp

A study of the concepts of culture and its application in the analysis of human group behavior. NM Common Course Number: ANTH 2113.

## ANTH 103. Introduction to Physical Anthropology and Archaeology (3); Fa, Sp

Introduction to the subdisciplines of physical anthropology and archaeology in the investigation of the origin, distribution, adaptation and evolution of early humans, up to the rise of civilization in the Old and New World. NM Common Course Number: ANTH 2213.

## ANTH 235 - 435. Selected Topic in Anthropology (I-4 VC); Var

Course in a topic or topics in anthropology. May be repeated with change of content.

## ANTH 274. Indian Cultures of North America (3); Var

Introduction of peoples and cultures of Native North America, including Mexico, at time of first European contact, employing "Culture Area Concept." Prerequisite: Permission of instructor.

## ANTH 299. Independent Research (3); Var

Individual, directed research arranged with an instructor. Prerequisite: Permission of instructor.

## ANTH 300. Sociocultural Theory (3); Fa

Survey of the principal developments of sociocultural theory that have contributed to the emergence, development, and consolidation of the disciplines of anthropology and sociology. Prerequisite: One introductory course in anthropology or sociology.

## ANTH 303. Anthropological Theory (3); Var

A survey of the major directions in contemporary American and Western European anthropology. Prerequisite: One introductory course in sociology or anthropology.

#### ANTH 330. Research Methods in Social Relations (3); Fa

This course is the first in the series of methodology courses offered by sociology. The course examines the ways in which social scientist investigates society and social phenomena. Student will be led through some of

the same reasoning that researchers use whey they think about doing their work in a professional setting. Students will learn how to survey and identify major research issues and methods using both quantitative and qualitative studies. The main objective of this course is to develop an interest among students to challenge ideas that are presented as fact and be able ask questions related to the research process (including design, sampling, data gathering and generalization issues). Students are expected to be able to apply their understanding of the research process to answer questions they find interesting by adopting appropriate methodology. Communicating their findings from various projects is essential. Topics covered include research design, measurement, sampling techniques, surveys, experiments, field research, unobtrusive research measure, applied research, and an introduction to data analysis and report writing.

## ANTH 352. Laboratory Research (I-3 VC); Var

Research experience in the anthropology laboratory. May be repeated.

#### ANTH 374. Indian Cultures of Central America (3); Var

A study of the native people, cultures, and culture areas of Central America. Prerequisite: One introductory course in sociology or anthropology.

#### ANTH 398. Anthropological Field Studies (2-4 VC); Var

Ethnological and/or archaeological field studies in selected sites. The destination and time in the field vary and are announced at the time of offering. A preparation session before departure is required.

## ANTH 410. Method and Theory in Archaeology (3); 2, 2 Var

The purpose, techniques, methods and theory of archaeology in the study of the human past and in the context of modern science. Prerequisites: ANTH 102 and 103 or Permission of instructor.

## ANTH 411. Paleoethnobotany (3); Variable

The question of subsistence is central to every archaeological inquiry. The specialized field of paleoethnobotany allows us to infer dietary habits from charred plant remains recovered during archaeological excavations. This course familiarizes students with field methods employed in the recovery of botanical remains (samplings, flotation, capture, and drying) and lab methods used to identify and interpret them. Special emphasis will be placed on identifying wild and domestic plants used by prehistoric peoples of northeastern New Mexico.

## ANTH 412. Lithic Technology and Analysis (3); Var

This course familiarizes students with the study of stone tools in archaeological contexts. We wish to learn from which materials these tools were made, the techniques that were employed, and how they came to be discarded to become part of the archaeological record. We also wish to know from where the materials came and what properties caused them to be selected for the purpose or purposes for which they were chosen. Accordingly, the course is broken into four general areas: geology, technology, analysis, and interpretation.

## ANTH 413. Archaeology of the Southwest (3); 2, 2 Var

Study of prehistoric cultures, before 1500, of the greater Southwest and Northern New Mexico. Prerequisite: One introductory course in sociology or anthropology.

#### ANTH 414. Field Methods In Archaeology (2-6 VC); Su

Instruction in archaeology field and laboratory techniques and methods. Prerequisite: ANTH 410 or Permission of instructor.

#### ANTH 415. Development and Sociocultural Change (3); Var

This course concerns the nature and consequences of development and culture change. The focus is on contemporary issues and the many ways in which anthropology is used outside its purely academic context: how anthropology is applied to contemporary human issues, how it benefits society, and how it advances theoretical knowledge. Prerequisite: One introductory course in anthropology or sociology. Cross-listed as: SOC 415.

## ANTH 420. Anthropology Goes to the Movies (3); Var

The course features ethnographic films that explore cross-cultural themes about people in the Southwest from their establishment to contemporary times. identities (race-ethnicity, nationality, political organization, religion, gender, class, sexuality, and so on) primarily through film and secondarily through ethnographic texts. Course readings, films, class lectures and discussions will examine the themes of cinematic (visual and auditory) manipulation of audience's perceptions and interpretations, research and ethics and accountabilities, and the politics of ethnographic representation. Students will learn about film in anthropology by viewing and discussing films that reflect various anthropological principles. Thinking about anthropology films will require talking and writing about the subject.

## ANTH 422. Religion and Culture (3); Var

The course addresses the origins, elements, forms, and symbolism of religion, provides a comparative survey of religious beliefs, myths, practices and symbolism, and focuses on religion in the context of culture, and teaches the appreciation of religious differences. Prerequisite: One introductory course in sociology or anthropology. Cross-listed as: SOC 422.

#### ANTH 428. Comparative Legal Systems (3); Fa

A sociological and anthropological analysis of social control and law in a variety of social and cultural contexts.

#### ANTH 429. Gender, Culture, and Society (3); Var

This course provides a foundation for understanding gender as expressed with- CJS 235 - 435. Selected Topic in Criminal Justice (3); Var in and influenced by society. Cross-culturally, men and women are perceived as Course in a topic or topics in criminal justice. May be repeated with a change different; often as opposites. This perception can affect the quality of life, both on a structural level (in terms of wages earned, jobs held) and on an interpersonal level (in terms of expression of self/autonomy). Various theoretical perspectives are explored to understand why this perception of difference exists, how it translates into inequality, and how it is learned.

#### ANTH 442. Forensic Anthropology (3); 2, 2 Var

Presentation and application of biological anthropology techniques in the identification of humans from skeletal remains.

## ANTH 450. Seminar in Anthropology (1-4 VC); Var

Seminar in anthropology. May be repeated which a change in topic.

## ANTH 454. Women and Globalization (3); Var

This course examines how women's lives are shaped by globalization through the feminization of labor and migration, environmental degradation, diaspora, sexuality, cultural displacement, and militarization. It explores the ways women have confronted these conditions as well as the possibilities and challenges of cross-border feminist coalitions.

## ANTH 456. U.S.-Mexico Immigration: Border Issues (3); Var

Socially and culturally, economically and demographically no international process has affected everyday life in the United States more than Mexican immigration. The course will examine the evolution, expansion and maintenance of processes and structures that have come to institutionalize the unspoken immigration "agreements" between these two nations.

## ANTH 461. Communication and Culture (3); Fa

Anthropological linguistics, focusing on investigations of the relationships between language and culture. Prerequisite: One introductory course in sociology or anthropology.

#### ANTH 474. Contemporary Indian Issues (3); Var

An examination of emerging social and cultural issues in today's American Indian society.

#### ANTH 476. Indians of the Greater Southwest (3); Var

A survey of the Native American cultures in the greater Southwest since 1500, including both Pueblo and non-Pueblo cultures. Prerequisite: One introductory course in sociology or anthropology.

## ANTH 477. The Hispanic Southwest (3); Var

An ethnohistorical and socioanthropological examination of Spanish-speaking CJS 490. Independent Study in Criminal Justice (1-4VC); Var

#### ANTH 480. Issues in Applied Anthropology (3); Var

This course focuses on what applied anthropology is, how it is done, how it benefits society, and how it advances anthropology's theoretical knowledge of culture and society. It is also for students who are interested in learning about the various ways in which anthropology is used outside the academia.

#### ANTH 481. Cultural Resource Management (3); Var

This course provides students with the foundations for conducting cultural resource management (CRM). It addresses laws, regulations, agencies, and techniques needed for conducting CRM work and practical experience. Prerequisite: One Culture Area course.

## ANTH 490. Independent Study (I-4 VC); Var

Individual, directed study arranged with an instructor. Prerequisite: Permission of instructor.

## ANTH 499. Independent Research (I-4 VC); Var

Individual, directed research arranged with an instructor. Prerequisite: Permission of instructor.

#### Criminal Justice (CJS), Courses in

of content.

#### CJS 301. Law Enforcement (3); Var

This course examines society's evolving responses to crime from the perspective of law enforcement agencies and officers. This course will explore the evolution of American policing from its roots in England to its current form. Topics will include community-oriented policing, problem-oriented policing, victimology, and the culture of police community. Prerequisites: SOC 152 and 231.

## CJS 310. Process and Procedures of Criminal Law (3); Var

This course examines processes and procedures of the American legal system. The primary focus is on the American adversarial system of criminal law and alternatives to these systems of law and justice. The adversarial system will be compared with the inquisitorial criminal and civil codes of Continental Europe.

## CJS 315. Issues in the Criminal Justice System (3); Var

This course provides an advanced exploration of issues currently impacting law enforcement, models of adult and juvenile corrections, and the judicial system. The course is designed to provide students with in-depth knowledge of the interdependence of the components of the criminal justice system continuum. The type and effectiveness of rehabilitative efforts and constitutional requirements for mental and medical health care will be examined.

## CJS 381. Terrorism (3); Var

This course critically examines the historical foundations of contemporary international terrorism, theories of its causes, its control, and the consequences of implementing those controls. Prerequisite: SOC 152 or SOC 231.

#### CJS 409. Domestic and Sexual Violence (3); Var

This course focuses on physical, sexual, and emotional abuse that occurs within families. A particular emphasis will be a focus on the psychological consequences of exposure to physical and sexual trauma and neglect. Victim and offender characteristics will be discussed in the context of family dynamics. Typical and potential criminal justice system responses will be explored.

## CJS 460. Approaches to Dispute Resolution (3); Var

This course provides a theoretical and practical understanding of dispute resolution processes in use in the private and public sectors. The course examines how and why dispute resolution processes function in particular environments, and critiques the strengths and weaknesses of each process. Prerequisite: Introductory course in psychology or introductory course in sociology.

Individual study arranged with an instructor. Prerequisite: Permission of instructor.

## Sociology (SOC), Courses in

## SOC 152. Introduction to Sociology (3); Fa, Sp

A broad survey of the basic concepts and principles that sociology uses to understand the development of the human social environment and it phenomena. NM Common Course Number: SOCI 1113.

## SOC 212. Marriage and the Family (3); Var

Marriage, family life, and the family as a social institution.

## SOC 231. Criminal Justice System (3); Fa

A sociological analysis of the criminal justice process in the United States with special emphasis on law enforcement and the courts.

#### SOC 235 - 435. Selected Topic in Sociology (I-4 VC); Var

Course in a topic or topics in sociology. May be repeated with change of content.

## SOC 283. Social Problems (3); Sp

The study of specific social problems that is significant at the present time.

#### SOC 300. Sociocultural Theory (3); Fa

Survey of the principal developments of sociocultural theory that have contributed to the emergence, development and consolidation of the disciplines of anthropology and sociology.

## SOC 323. Deviant Behavior (3); Var

Analysis of behavior that deviates from institutionalized expectations, by using specific sociological theory and method.

## SOC 327. Juvenile Delinquency and Justice (3); Fa

An overview of definitions and social theories of delinquency and an analysis of the legal system for processing juvenile offenders in the United States; special consideration of juvenile justice in New Mexico.

#### SOC 329. Institutional Corrections (3); Sp

A sociological analysis of the role of jails and prisons in the criminal justice system and larger society in the United States; emphasis on operation of adult correctional facilities, from perspective of both staff and inmates, with special consideration of institutional corrections in New Mexico.

#### SOC 330. Research Methods in Social Relations (3); Fa

The social context, structure of inquiry, and modes of observation in research of social and cultural phenomena. Prerequisite: One introductory course in sociology or anthropology. Cross-listed as: ANTH 330.

## SOC 412. Social Stratification (3); Sp

Differentiation, status, social mobility, class, and caste in selected societies. Prerequisite: One introductory course in sociology or anthropology.

## SOC 415. Development and Sociocultural Change (3); Var

This course concerns the nature and consequences of development and culture change as understood by social scientists. Course will address theoretical orientations, consequences of development, and case studies. Prerequisite: One introductory course in sociology or anthropology. Cross-listed as: ANTH 415.

## SOC 422. Religion and Culture (3); Var

The origins, elements, forms, and symbolism of religion including a comparative survey of religious beliefs, myths, practices, and symbolism. Course focuses on religion in the context of culture with an emphasis on appreciating religious differences. Prerequisite: One introductory course in sociology or anthropology. Cross-listed as: ANTH 422.

## SOC 427. Criminology (3); Sp

An overview of definitions and types of crime, and social theories of crime causation; special issues related to crime, crime control, and crime prevention.

## SOC 428. Comparative Systems of Social Control (3); Fa

This course is a sociological and anthropological analysis of social control and law

in a variety of social and cultural contexts. Prerequisite: SOC 152 and CJS 231.

## SOC 429. Gender, Culture, and Society (3); Var

This course provides a foundation for understanding gender as expressed within and influenced by society. Cross culturally men and women are perceived as different, often as opposites. This perception can affect the quality of life, both on a structural level (in terms of wages earned, jobs held) and on an interpersonal level (in terms of expression of self/autonomy). Various theoretical perspectives are explored in order to understand why this perception of difference exists, how it translates into inequality and how it is learned.

## SOC 430. Applied Social Research and Data Analysis (4); 3, 2 Sp

Instruction in and application of techniques used in the analysis of quantitative and qualitative social science research data. Prerequisite: SOC 330 or permission of instructor.

#### SOC 431. Political Sociology (3); Var

Sociological theory and research as applied to the study of political behavior, including such topics as the social bases of power (class, occupation, religion, cultural values), decision-making, leadership and communications.

## SOC 439. Introduction to Contemporary Sociological Theories (3); Sp

Introduction to and analysis of contemporary sociological theories.

## SOC 450. Seminar in Sociology (1-4 VC); Var

Seminar course is a topic or topics in sociology: may be repeated with change of content.

#### SOC 454. Women and Globalization (3); Var

This course examines how women's lives are shaped by globalization through the feminization of labor and migration, environmental degradation, diaspora, sexuality, cultural displacement, and militarization. It explores the ways women have confronted these conditions as well as the possibilities and challenges of cross-border feminist coalitions.

#### SOC 490. Independent Study (I -4 VC); Var

Independent study arranged with an instructor. Prerequisite: Permission of instructor.

## SOC 493. Race and Ethnic Relations (3); Sp

The basic processes operating in the present day interrelations of ethnic groups.

## SOC 498. Field Experience (1-4 VC); Var

A field placement in a local service agency providing opportunity for observation and learning under staff supervision. May be taken twice for credit. Prerequisite: Senior classification in sociology or criminal justice, and permission of instructor.

#### SOC 499. Independent Research (I-4 VC); Var

An individual, directed research investigation arranged with an instructor on a topic of mutual interest to the student and the instructor. Projects require a final written report that includes a presentation of the problem, review of the literature, description of procedures, data analysis, and interpretation of results. Prerequisite: Permission of instructor. One introductory course in sociology or anthropology.

## Department of Psychology

Dr. Ian Williamson, Department Chair

Lora Magnum Shields Building, Room 250 505.454.3342

FAX: 505.454.3331

E-mail: iwilliamson@nmhu.edu

## Mission of the Department of Psychology

The mission of the Department of Psychology is to contribute to meeting the educational and research needs in psychology; contribute to meeting the career needs in psychological services and research, as well as contribute to training for careers in education, engineering, physical and biological sciences, medicine, and other science fields; contribute to meeting the need for secondary school teacher certification in psychology; and to provide psychological and sociocultural service and expertise for the region, as well as the greater global community.

#### **Faculty**

Nariman Arfai, Ph.D. Lara Heflin, Ph.D. Linda LaGrange, Ph.D. David Pan, Ph.D. Sarah Tracy, Ph.D. Leon Bustos, M.S. Ian Williamson, Ph.D.

#### **Psychology**

Psychology, the study of human behavior and mental processes, includes such topics as learning and memory, cognition, motivation and emotion, sensation and perception, personality, development, attitudes, social interactions, brain-behavior relationships, human sexuality, psychopathology, and mental health interventions.

The special focus in this field is the individual rather than human societies or cultures. Although the study of psychology contributes to the understanding of abnormal human behavior, knowledge of psychology also enhances the understanding of normal human behavior.

Psychological research is conducted exclusively with the scientific method in applications that range from multifactorial laboratory experiments to single case studies. At Highlands, students experience the diversity within the field through a broad selection of courses. There is a cognitive-behavioral emphasis offered in the study of mental disorders, while research psychology is represented by cognitive, biological, social, and personality approaches.

Career goals of psychologists include teaching, research, and applied psychological service. Psychologists, counselors, and psychometricians work at such sites as schools, mental health centers and hospitals, geriatric facilities, and correctional institutions. The psychological profession also includes school psychologists and human relations or organizational behavior psychologists for industry or government.

## **Resources and Facilities**

The human riches of Northern New Mexico provide an outstanding context for psychological, social, and cultural studies at New Mexico Highlands University. Students may engage in field archaeological digs, ethnographic, psychobiological research, and clinical practicum. Additionally, students have the opportunity to conduct research in our psychobiology and anthropology labs. Studies of human behavior emphasize field data and computer applications for analysis and interpretation.

The department provides a computer laboratory for student use. Students have access to word processing, spreadsheets, and statistical packages, as well as the Internet.

Student professional societies and organizations, such as Psi Chi, and the Sociology and Anthropology Club, provide opportunities for student participation and program enrichment beyond the classroom.

## **Psychology**

## Major in Psychology (B.A.)

All transfer students majoring in psychology must complete a minor approved by their major adviser.

#### Required courses: 11 credit hours

PSY 101 Psychology & Society (3)

PSY 301 Psychological Research Methods (4)

PSY 302 Statistics for the Behavioral Science (4)

## Other Requirements: 16 credit hours, minimum

Choose courses as indicated below in consultation with your major adviser.

Choose at least one course from each of Groups A, B, C, D, and E below, including one laboratory or techniques/methods courses.

## A) Social (choose one)

PSY 321 Social Psychology: Theories & Research (3) PSY 405 Positive Psychology (3)

#### B) Personality & Developmental (choose one)

PSY 328 Theories of Personality (3) PSY 340 Developmental Psychology (3)

#### C) Learning and Cognitive Processes (choose one)

PSY 317 Learning: Basic Processes (3) AND PSY 318 Experimental Techniques in Learning (1) (Corequisite: PSY317)

OR

PSY 319 Memory & Cognitive Processes (3) AND PSY 320 Research in Memory and Cognition (1) (Corequisite: PSY319)

OR

PSY 466 Psychology of Eyewitness Testimony (3)

#### D) Psychobiological (choose one)

PSY 408 Drugs & Behavior (3) OR

PSY 410 Physiological Psychology (3) AND

PSY 411 Techniques in Physiological Psychology (1) (Corequisite: PSY410)

## E) Clinical (choose one)

PSY 324 Abnormal Psychology (3)

PSY 419 Introduction to Behavior Therapy (3)

PSY 445 Behavior Disorders in Children (3)

PSY 475 Abnormal Psychology in Literature (3)

#### Electives: 9 credit hours

Additional requirements for this major (not counted toward the 36 credit hour minimum):

In the core curriculum, select the courses SOC 152 and ANTH 103 (or 102), or substitutes approved by the major adviser. For computer proficiency, select CS 101 or an equivalent approved by the discipline. Completion of MATH 120, 140, 160, and 211 is also recommended.

Major Total: 36 credit hours, minimum

Minor Total: 20 credit hours, minimum

Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/Electives to 120: 24 credit hours\*

Total for degree: 120 credit hours

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional credit hours may be required to meet the 120 credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

#### Major in Psychology (BS)

An academic minor in a science field is required and is not waived by the associate's degree. Consult with a program adviser to select an appropriate science minor. For the Bachelor of Science degree in psychology, complete the Bachelor of Arts program described above, with the following changes:

- 1. Complete 3 credits of PSY 499 as one of the electives.
- Select within the science options of the core curriculum (Laboratory Science category) either one year of biology or chemistry.
- 3. Complete MATH 140, 160, and 211 in the core curriculum.
- 4. Select an academic minor in one of the science fields.

Major Total: 36 credit hours

Minor Total: 20 credit hours minimum

Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/Electives to 120: 24 credit hours\*

Total for degree: 120 credit hours

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number of credit hours required by the minor. Additional credit hours may be required to meet the 120 credit degree requirement if proficiency or other required courses are waived for content only. The university requires a minimum of 45 upper-division units for the degree.

#### Minor in Psychology

## Required courses: 3 credit hours

PSY 101 Psychology & Society (3)

#### Electives: 21 credit hours

Choose courses as indicated below in consultation with your minor adviser.

Choose at least one course from three of the four groups of courses listed above for the major in psychology (BA), including at least one laboratory or techniques/methods course. In addition, the student may select one other elective psychology course to complete the 24 credits for a psychology minor.

Minor Total: 24 credit hours

## Psychology (PSY), Courses in

## PSY 101. Psychology and Society (3); Fa, Sp

A survey of the major concepts of modern psychology and their application to some of the issues in modern society. Two lecture hours per week are scheduled along with a weekly small group discussion, which supplements the lectures by means of discussion, films, and demonstrations. NM Common Course Number: PSYC 1113.

## PSY 301. Psychological Research Methods (4); Fa

This class gives students a basic understanding of the types of research methods that apply to psychology. Students will be introduced to experimental, quasi-experimental, and correlational designs, among others. Majors will be required to conduct their own research project in psychology over the year in conjunction with the PSY 302.

#### PSY 302. Statistics for the Behavioral Science (4); Sp

The first purpose of the course is to reduce the fear of statistics by using examples that make sense to everyone. The second purpose of the course is to teach students basic statistics. Students will be deriving answers with hand calculations to obtain a good basic overview of simple statistics, including descriptive, correlations, t-test, and ANOVAS. Majors will be finishing the research project they began in PSY 301 by analyzing their data with the statistical techniques they learn in the class.

#### PSY 317. Learning: Basic Processes (3); Sp, Odd

A review of the primary phenomena associated with instrumental and classical conditioning. Some attention is given to adaptations of conditioning principles to behavior modification. Prerequisite: PSY 101 or permission of instructor. Corequisite: PSY 318.

#### PSY 318. Experimental Techniques in Learning (1); Sp, Odd

Laboratory experimental work demonstrating basic phenomena in animal learning and memory. Corequisite: PSY 317.

## PSY 319. Memory and Cognitive Processes (3); Fa

A review of human processes involved in encoding, storing, and retrieving information. Recommended prerequisites: PSY 301 and PSY 302.

## PSY 320. Research in Memory & Cognition (1); Fa

This course is an exercise in critical thinking directed at one's own mind. The aim of this course is to familiarize students with key cognitive psychological studies by means of practical experimental demonstrations and critical analysis of research articles. The course will cover topics such as selective attention, automatics vs. conscious processing, reconstructive memory processing and semantic integration, forms of learning, and the role of generic knowledge and heuristics in everyday thinking. This course complements PSY 319.

## PSY 321. Social Psychology: Theories and Research (3); Sp, Even

A review of the major social-psychological theories and research. Topics include person perception, attributional processes, attitudes, stereotyping, group processes, aggression, interpersonal attraction, and altruism. Prerequisite: PSY 101 or permission of instructor. Corequisite: PSY 322.

#### PSY 322. Social Psychology Research (1); Sp, Even

This course is strongly recommended as a discussion course to accompany PSY 321. In this class, students will be discussing modern and classic research in the area of social psychology. Students will be reading primary source material covering relationships, prejudice, aggression, helping, and related areas of social psychology. Corequisite: PSY 321.

## PSY 324. Abnormal Psychology (3); Fa

An analysis of each of the major syndromes of psychopathology in terms of basic psychological processes. Special attention is given to the clinical observation and experimental research underlying the delineation of each syndrome. Prerequisite: PSY 101 or permission of instructor.

## PSY 328. Theories of Personality (3); Var

A review of the major theories of personality such as those introduced by Freud, Jung, Horney, and Erickson. A sampling of non-Western approaches to this topic is also addressed including the Hindu, Buddhist, and Islamic perspectives. Prerequisite: PSY 101 or permission of instructor.

## PSY 335 - 435. Selected Topic in Psychology (1-4 VC)

Course in a topic or topics in psychology. May be repeated with a change of content.

#### PSY 340. Developmental Psychology (3); Fa

In-depth coverage of developmental theory and research with emphasis alternating among child, adolescent and adult development. Cross-listed as ECME 302.

#### PSY 377. Environmental Psychology (2); Var

An examination of environmental factors affecting behavior and socio-psychological functioning, including such topics as physical/architectural factors, crowding, and personal space.

## PSY 405. Positive Psychology (3); Fa

This course provides an overview of the dynamic field of positive psychology. What does this mean? Positive psychology is oriented to the study of optimal human performance, quality relationships, well-being, and flourishing. How can we be happy? How can we enhance our own lives and the lives of others? How can we be creative, productive, satisfied, and live meaningful lives? These are a few of the questions we would like to tackle in this course.

## PSY 407. Theories of Counseling (3); Var

This course will enhance students' awareness of the primary methods, goals, and philosophical/scientific of psychological and related forms of counseling. The course will include the study of research-supported counseling

theories as well as the less empirical/tangible elements of this unique form of human encounter. Multicultural issues as they impact counseling will be a primary focus.

## PSY 408. Drugs and Behavior (3); Sp

This course will focus on psychoactive drugs, or drugs that influence how people think, feel, or behave. Because this is fundamentally a biological psychology course, it will focus primarily on the physiological action of drugs, including how they influence brain functioning and, consequently, behavior. It will examine the addictive potential of drugs, the neurological and psychological mechanisms by which drugs become addictive, and treatments for drug abuse.

#### PSY 409. Domestic and Sexual Violence (3); Var

This course focuses on physical, sexual, and emotional abuse that occurs within families. A particular emphasis will be a focus on the psychological consequences of exposure to physical and sexual trauma and neglect. Victim and offender characteristics will be discussed in the context of family dynamics. Typical and potential criminal justice system responses will be explored.

#### PSY 410. Physiological Psychology (3); Fa

An overview of the neuroanatomical and neurophysiological processes underlying behavior. Topics include brain-behavior relationships, neurological disorders, brain organization, sensory systems, language systems, memory systems, sleep, and sexual functioning. Corequisite: PSY 411.

## PSY 411. Techniques in Physiological Psychology (1); Fa

Laboratory work designed to enrich understanding of physiological psychology. Exercises include sheep brain dissection and the use of physiological psychology instruments. Corequisite: PSY 410.

## PSY 416. Motivation and Emotion (3); Var

A review of the major phenomena and theories that relate to motivation and emotion. Prerequisite(s): PSY 301 and PSY 302, or permission of instructor.

#### PSY 419. Introduction to Behavior Therapy (3); Var

Introduction to and survey of behavior therapy procedures and their application to child and adult populations in a variety of settings including homes, schools, prisons, and hospitals.

## PSY 422. Human Sexuality (3); Fa, Even

Review of contemporary, socio-psychological issues relating to human sexuality. Topics include sexual anatomy, sexually transmitted diseases, sexual dysfunctions, and sexual attitudes and mores.

## PSY 425. Introduction to Group Psychotherapy (3); Var

An overview of group therapy, theory and techniques. The course includes an experiential component designed to provide experience with group process and group leadership. Prerequisite: Permission of instructor.

## PSY 430. Gender Roles (3); Var

An examination of gender roles and role theory in understanding the behavior of women and men. Topics include development, stereotyping, sex differences in personality, abilities, achievement, and status. Attention is given to implications of changing female and male roles in society.

## PSY 433. History of Psychology (3); Var

Review of the major figures associated with the development of psychology as a science from Plato's time to the present, with special emphasis on the 19th and 20th centuries. Prerequisite(s): PSY 301 and PSY 302, or permission of instructor.

#### PSY 445. Behavior Disorders in Children (3); Var

Etiology and treatment of behavioral problems in children in a variety of settings, including home and school environments. An eclectic coverage of the major theories, approaches, and research is provided. Prerequisite: PSY 240 or 340, or permission of instructor.

## PSY 450. Seminar in Psychology (I-4 VC)

Seminar course in a topic or topics in psychology. May be repeated with a change in content.

## PSY 466. Psychology of Eyewitness Testimony (3); Sp

This course is designed to provide students with an in-depth examination of the way human memory process impacts a person's ability to accurately recall the details of various scenarios such as phone conversations, visual identification of individuals involved in a crime, chronological order of events, and more. In addition to internal memory processes, students will be exposed to the many external influences on memory accuracy, which includes pressure from attorneys, threats from acquaintances, implanted memories, etc. Finally, the impact of age, mental disabilities, and emotional disturbances upon the ability to offer accurate eyewitness testimony will be a third focus of this course. This course is particularly salient to psychology and criminal justice majors.

#### PSY 472. Cognitive Science (3); Var

An interdisciplinary investigation of the foundations of human knowledge representation and understanding, the functioning of the human mind, and how these impact on recent computer technologies. Cross-listed as PHIL 472 and CS 472.

#### PSY 475. Abnormal Psychology and Literature (3); Var

Characters from many literary works analyzed in terms of psychopathology. Various theories of abnormality will be utilized.

#### PSY 477. Culture and Mental Illness (3); Var

An examination of current descriptions and explanations of mental disorders in a sample of countries from all major regions of the world. Historical, technical, ethical, and pragmatic aspects of international research in the realm of psychology/psychiatry are also addressed. Prerequisite: PSY 101, PSY 324, or permission of instructor.

## PSY 479. Psychology of Religion (3); Var

An examination of the relationship between the discipline of psychology and mysticism. Perspectives addressed include the historical, cultural, philosophic, psychoanalytic, and scientific. Prerequisite: PSY 101.

## PSY 480. Community Psychology (3); Var

An introduction to community psychology with emphasis on theories and research regarding prevention and consultation. Prerequisite: PSY 101 or permission of instructor.

## PSY 490. Independent Study (I-4 VC); Fa, Sp

Individual, directed readings and library research arranged with an instructor on a topic of mutual interest to the student and instructor. Prerequisite: Permission of instructor.

## PSY 498. Field Experience (1-4 VC); Var

A field placement in a local service agency providing opportunity for observation and learning under staff supervision. May be taken twice for credit. Prerequisite: Senior classification in psychology and permission of instructor.

## PSY 499. Independent Research (I-4 VC); Fa, Sp

An individual, directed research investigation arranged with an instructor on a topic of mutual interest to the student and the instructor. Projects require a final written report that includes a presentation of the problem, review of the literature, description of procedures, data analysis, and interpretation of results. Prerequisite: Permission of instructor.

## **Department of Visual and Performing Arts**

Professor David Lobdell, Department Chair

Burris Hall, Room 109 D 505.454.3570/3126 FAX: 505.454.3241 E-mail: dlobdell@nmhu.edu

#### Mission of the Department of Visual and Performing Arts

The general mission of the Department of Visual and Performing Arts is to educate students in the technical skills, the theoretical underpinnings, and the sociocultural context for the disciplines represented by the academic programs. The department seeks to inspire students to develop creative and expressive ideas in the foundation of their lives and in their work, which is the essence of the cultivation of the human mind and spirit.

In its collaborative enterprises, the department seeks to provide opportunities for students to work closely with faculty and staff in its academic courses, thus demonstrating that faculty and staff readily interact with students.\* Community members join the department for many productions and activities. The department aims to incorporate appropriate elements from Northern New Mexico's artistic, theatrical, and musical culture in its courses and productions, which relate to the rich heritage of Hispanic and Native American cultures that are distinctive of the state of New Mexico. Ultimately, the department aims to prepare its students for an active professional life in each discipline through the knowledge, creativity, teaching skills, and dedication of its faculty and staff, showing excellence in teaching, discovering, preserving and applying knowledge.

#### **Faculty**

Todd Christensen, MFA (Art)
Donald Evans, MA (Speech and Theater)
Andre Garcia-Nuthmann, Ph.D. (Music)
Ashlyn Harrington, MM (Music)
Edward Harrington, Ph.D. (Music)
David Lobdell, MFA (Art)
Shereen Lobdell, MA (Art)
Kevin Zoernig, BA (Music)

## **Resources and Facilities**

New Mexico Highlands University provides music studios for audio recording, songwriting, group rehearsal, and individual practice, art studios for ceramics, painting, drawing, jewelry and metalsmithing, printmaking, sculpture, and a fully equipped art foundry.

Students in visual and performing arts are joined by other students on campus and by community members in the concert choir, madrigal choir, HU Jazz Singers, wind ensemble, guitar ensemble, jazz ensemble, and mariachi, as well as four main-stage productions. The gallery in the arts building (Burris Hall) serves as the focal point for artistic work produced through various classes and studios. The Art Club and Music Club are an active part of campus life and work to promote their respective programs.

#### **Visual Arts**

The fine arts discipline prepares students for a career in visual art and prepares them to advance academically. A focus on critical thinking and commitment in coursework enables students to become visually literate, technically competent, historically informed, and conceptually relevant.

The program aims to support traditional fine art mediums, as well as contemporary art forms that merge multiple disciplines, including digital media. Art history informs students of background and traditional content issues in art. The expectation is that students will assimilate this knowledge through their production practices. The program provides training in electronic media for documentation and publication purposes, which helps the student gain access to exhibition venues and academic program applications.

Highlands' art discipline reserves the right to retain student images submit-

ted for course credit for the purposes of education, exhibition, and promotion. Lab fees are required for all studio courses. Expenses vary from course to course and some supplies will be provided from student fees.

#### **Interdisciplinary Bachelor of Fine Arts**

The fine arts and media arts BFA is designed to address a creative trend in art that combines electronic media with traditional media. This degree applies to those wishing to use multimedia for the sake of expression. The program creates a bridge between traditional and electronic media beyond the need for documentation and exhibition.

#### Music

The Music Program at Highlands offers a variety of options to meet the needs of students with pre-professional interests in music. Degree selections include an Associate of Arts (AA) in Music is available with concentrations in Music Production, in General Music or in Musical Theater; a Bachelor of Arts in Music Education (BA); a Bachelor of Arts in Music with a Concentration in Technology and Composition (BA); a Bachelor of Fine Arts in Music, with a Concentration in Vocal Performance (BFA); and a Bachelor of Arts in Music (BA) with a Concentration in Universal Music, with a musical focus to be chosen by the student and professor.

A wide range of choral and instrumental ensembles provides students with opportunities to participate in active music making. These include Concert Choir, Madrigal Choir (El Coro de la Tierra Alta), Jazz Choir, HU Singers, Music Theater, Jazz Ensemble, and Mariachi (Vaqueros de la Sierra). Other choral and instrumental ensembles are offered according to student interests. Scholarship opportunities include activity awards, the Muller Family Scholarship, the Lorraine Schula Scholarship, the Thomas Mishler Scholarship, and the Lorenzo Miguel Gallegos Scholarship.

Students in the Music Program will become proficient by acquiring a thorough knowledge of the philosophy, aesthetics, literature, and history of Western art music.

#### **Associate of Arts in Theater Production**

Theater is a creative, collaborative art form that builds experience in the ensemble process. The Theater Production Associate of Arts program unites the theoretical and concrete by providing students with valuable opportunities for persona, social and educational development. This program addresses the needs of the experienced as well as the novice student. Most students who enrolling this program are endowed with a basic talent in performance that requires cultivation. Each student is individually evaluated and calibrated in order that processors, a "mentors, " can meet each student at his/her level of experience and develop that talent to its highest possible level of accomplishment. Theater based classes will introduce students to acting, stagecraft, back stage management, theater production, costuming, choreography, dance and music. Students in this program will also study dramatic literature in the English department, 56 New Mexico Highlands University which will both expand their knowledge of theatrical works and allow them to easily transition into a major in English if they want to continue their studies.

## Required courses: 27 credits

THEA 134 Theater Practicum (1)
THEA 261 Stage Movement for the Actor (3)
THEA 271 Acting 1: The Actor Prepares (3)
THEA 272 Acting 2: Creating a Character (3)
MUS 276 Musical Theater (2)
MUS 283 Ensemble: HU Singers (1)
THEA 234 Theater Practicum (2)
ENGL 2XX Introduction to Shakespeare (3)
ENGL 291 British Literature from 1700 to the present (3)
ENGL 295 American Literature from 1865 (3)
ENGL 2XX Topics in Drama (3)

OR

ENGL 151 Introduction to Drama (3)

Major Total: 27 credit hours Core Total: 35 credit hour Extended core: 5 credit hours Total for degree: 67

\*Total units for the degree may exceed 67 credit hours if proficiency courses are required. The University requires a minimum of 67 credit hours for this degree

## **Visual and Performing Arts**

## Major in Fine Art, Pre-Professional (BFA)

#### Required courses: 48 credit hours

All BFA majors are required to take coursework in the following order:

Note: No minor is required for the completion of the professional degree program (BFA) in art.

#### Tier 1: 9 credit hours required

ART 121 Fundamentals of Design (3)

OR

MART 121 Visual Concepts (4)

AND

ART 202 Drawing 1 (3)

MART 233 Imaging History and Production (4)

#### Tier 2: 12 credit hours required

ART 203 Drawing 2 (3)

ART 221 Painting 1 (3)

ART 241 Sculpture 1 (3)

ART 271 Printmaking 1 (3)

## Tier 3: 15 credit hours required

AH 210 Art History 1 (3)

AH 211 Art History 2 (3)

Choose nine credit hours of electives

## Tier 4: 12 credit hours required

AH 340 Modern Art (3)

AH 380 Art of the Americas (3)

AH 450 Seminar in Art History (3)

ART 491 Senior Colloquium (2)

ART 495 B.F.A. Exhibit (1)

## Electives: 18 additional credit hours required

## Studio Elective Courses for BFA and BA in Fine Arts:

ART 231 Ceramics 1 (3)

ART 261 Jewelry & Metalsmithing 1 (3)

ART 285 Art Foundry 1 (3)

ART 302 Life Drawing 1 (3)

ART 321 Painting 2 (3)

ART 322 Painting 3 (3)

ART 331 Ceramics 2 (3)

ART 335 Selected Topics in Art Studio (1-4)

ART 341 Sculpture 2 (3)

ART 361 Jewelry & Metalsmithing 2 (3)

ART 371 Printmaking 2 (3)

ART 372 Printmaking 3 (3)

ART 385 Art Foundry 2 (3)

ART 402 Life Drawing 2 (3)

ART 422 Painting 4 (3)

ART 431 Ceramics 3 (3)

ART 435 Selected Topics in Art Studio (1-4)

ART 441 Sculpture 3 (3)

ART 442 Sculpture 4 (3)

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ART 461 Jewelry & Metalsmithing 3 (3)
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ART 472 Printmaking 4 (3)

ART 485 Art Foundry 3 (3)

ART 493 Directed Study in Art Studio (1-4)

ART 496 Exhibit Design (3)

ART 498 Professional Internship (1-4)

A maximum of three courses may be chosen from the Media Arts list totaling 9 credits:

MART 309 Conceptual Imaging and Methods (4)

MART 320 Color Theory (4)

MART 414 Portfolio (4)

MART 433 Advanced Digital Imaging (4)

MART 443 Digital Photography (4)

MART 445 Advanced Digital Photo (4)

MART 495 Exhibition Design (4)

MART 496 Advanced Exhibition Design (4)

Major Total: 66 credit hours Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/electives to 120: 14 credit hours

Total for degree: 120 credit hours\*

\*A minor is not required. Additional credit hours (electives) may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

## Interdisciplinary Bachelor of Fine Arts (BFA)

#### Required courses: 33 credit hours; elective courses: 33

#### Tier 1: 9 credit hours required

ART 121 Fundamentals of Design Studio (3)

OR

MART 121 Visual Concepts (4)

AND

ART 202 Drawing 1 (3)

MART 233 Imaging History and Production (4)

#### Tier 2: 21 credit hours required

ART 203 Drawing 2 (3)

MART 320 Color Theory (4)

AH 210 Art History 1 (3)

AH 211 Art History 2 (3)

Choose nine credit hours of elective courses in media arts or fine art

## Tier 3: 18 credit hours required

AH 340 Modern Art (3)

AH 380 Art of the Americas (3)

Choose 12 credit hours of elective courses in media arts and fine art

#### Tier 4: 18 credit hours required

MART 465 Advanced Media Projects (4)

OR

ART 491 Senior Colloquium (2)

AND

ART 495 BFA Exhibit 1 (1)

AH 450 Seminar in History (3)

Choose 12 credit hours of elective in media arts or fine art

Major total: 66 credit hours Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/electives to 120: 14 credit hours

Total for degree: 120 credit hours\*

\*A minor is not required. Additional credit hours (electives) may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### Major in Fine Art, Liberal Arts (BA)

## Required courses: 18 credit hours; elective courses: 18 credit hours

#### Tier 1: 6 credit hours required

ART 121 Fundamentals of Design (3)

OR

MART 121 Visual Concepts (3)

AND

ART 202 Drawing 1 (3)

#### Tier 2: 9 credit hours

ART 203 Drawing 2 (3)

Choose six credit hours of studio electives

#### Tier 3: 12 credit hours

AH 210 Art History 1 (3)

AH 211 Art History 2 (3)

Choose six credit hours of studio electives

#### Tier 4: 9 credit hours

AH 340 Modern Art (3)

Choose six credit hours of studio electives

#### Studio Electives courses for B.A. in Fine Arts:

ART 231 Ceramics 1 (3)

ART 261 Jewelry & Metalsmithing 1 (3)

ART 285 Art Foundry 1 (3)

ART 302 Life Drawing 1 (3)

ART 321 Painting 2 (3)

ART 322 Painting 3 (3)

ART 331 Ceramics 2 (3)

ART 335 Selected Topics in Art Studio (1-4)

ART 341 Sculpture 2 (3)

ART 361 Jewelry & Metalsmithing 2 (3)

ART 371 Printmaking 2 (3)

ART 372 Printmaking 3 (3)

ART 385 Art Foundry 2 (3)

ART 402 Life Drawing 2 (3)

ART 422 Painting 4 (3)

ART 431 Ceramics 3 (3)

ART 435 Selected Topics in Art Studio (1-4)

ART 441 Sculpture 3 (3)

ART 442 Sculpture 4 (3)

ART 461 Jewelry & Metalsmithing 3 (3)

ART 472 Printmaking 4 (3)

ART 485 Art Foundry 3 (3)

ART 493 Directed Study in Art Studio (1-4)

ART 496 Exhibit Design (3)

ART 498 Prof Internship (1-4)

Major Total: 36 credit hours Core Total: 35 credit hours Extended core: 5 credit hours

Minor: 20 credit hours minimum
Proficiency/electives to 120: 24 credit hours

Total for degree: 120 credit hours\*

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\*A minor is required. Additional credit hours (electives) may be required to meet the 120-credit degree requirement if proficiency or other required courses

are waived for content only. English and Math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### Minor in Art (Art Studio Emphasis)

## Required courses: 15 credit hours

ART 121 Fundamentals of Design (3)

OF

MART 121 Visual Concepts (3)

AND

ART 202 Drawing 1 (3)

ART 203 Drawing 2 (3)

AH 210 Art History 1 (3)

AH 211 Art History 2 (3)

#### Electives: 9 credit hours

Studio electives: nine credit hours (six credits must be at the 300 or 400 level)

## Minor Total: 24 credit hours

#### Minor in Art History

#### Required courses: 21 credit hours

ART 100 Introduction to Art (3) ART 121 Fundamentals of Design (3)

OR

MART 121 Visual Concepts (3)

AND

AH 210 Art History 1 (3)

AH 211 Art History 2 (3)

AH 380 Art of the Americas (3)

AH 340 Modern Art (3)

AH 450 Seminar in Art History (3) (Repeatable)

Minor Total: 21 credit hours

#### Associate of Arts with a Concentration in Music Production (AA)

To be admitted into the Music Program, the student must first complete three Audition Courses with a "C" or better in the following courses: MUS 101, MUS 144, and either MUS 104 or MUS 107, or MUS 108.

## Required courses: 16 credit hours

MUS 101 Rudiments of Music (3)

MUS 107 Basic Songwriting (1)

MUS 144 Sight Singing (3)

MUS 201 Class Piano 1 (1)

MUS 202 Class Piano 2 (1)

MUS 211 Theory 1 (3)

MUS 213 Theory 2 (3)

MUS 232 Aural Skills 2 (1)

MUS 260 Recital Attendance (0/0/0) (3 semesters)

## Concentration in Music Production (10 credit hours):

MUS 220 Music Technology (3)

MUS 251 Applied Music: Songwriting (2-4)

MUS 251 Applied Music: Recording (2-4)

MUS 283 Ensemble: (any Ensemble) (1)
Major Total: 26 credit hours

Core Total: 35 credit hours Extended Core: 5 credit hours Total for Degree: 66 credit hours\*

\*Total units for the degree may exceed 66 credit hours if proficiency courses are required. The University requires a minimum of 66 credit hours for this degree.

#### Associate of Arts with a Concentration in General Music (AA)

To be admitted into the Music Program, the student must first complete

three Audition Courses with a "C" or better in the following courses: MUS 101, MUS 144, and either MUS 104 or MUS 107, or MUS 108.

#### Required courses: 16 credit hours

MUS 101 Rudiments of Music (3)

#### Choose one:

MUS 104 Basic Voice (1) or MUS 107 Basic Songwriting (1)

OR

MUS 108 Basic Instrument (1)

MUS 144 Sight Singing (3)

MUS 201 Class Piano 1 (1)

MUS 202 Class Piano 2 (1)

MUS 211 Theory 1 (3)

MUS 213 Theory 2 (3)

MUS 232 Aural Skills 2 (1)

MUS 260 Recital Attendance (0/0) (2 semesters)

## Concentration in General Music (8 credit hours):

Choose a single subject for Applied Music:

MUS 251 Applied Music (2-4)

Choose a single subject for Ensemble:

MUS 283 Ensemble (1/1/1/1) (4 semesters)

Major Total: 24 credit hours Core Total: 35 credit hours Extended Core: 5 credit hours Total for Degree: 64 credit hours\*

\*Total units for the degree may exceed 64 credit hours if proficiency courses are required. The University requires a minimum of 64 credit hours for this degree.

## Associate of Arts with a Concentration in Musical Theater (AA)

To be admitted into the Music Program, the student must first complete three Audition Courses with a "C" or better in the following courses: MUS 101, MUS 144, and either MUS 104 or MUS 107, or MUS 108.

#### Required courses: 16 credit hours

MUS 101 Rudiments of Music (3)

MUS 104 Basic Voice (1)

MUS 144 Sight Singing (3)

MUS 201 Class Piano 1 (1)

MUS 202 Class Piano 2 (1)

MUS 211 Theory 1 (3)

MUS 213 Theory 2 (3)

MUS 232 Aural Skills 2 (1)

MUS 260 Recital Attendance (0/0) (2 semesters)

## Concentration in Musical Theater (10 credit hours):

THEA 134 Theater Practicum (1)

THEA 271 Acting 1: The Actor Prepares (3)

MUS 276 Musical Theater (2)

MUS 251 Applied Music: Voice (2/2) (2 semesters)

Major Total: 26 credit hours Core Total: 35 credit hours Extended Core: 5 credit hours Total for Degree: 66 credit hours\*

\*Total units for the degree may exceed 66 credit hours if proficiency courses are required. The University requires a minimum of 66 credit hours for this degree.

Core for all Bachelor of Arts in Music (BA) or Bachelor of Fine Arts in Music (BFA) Degrees (various concentrations)

The following courses are required for all concentrations for the BA and BFA in Music degrees.

## Required core for all concentrations: 35 credit hours

## MUS 101 Rudiments of Music (3)

#### Choose one:

MUS 104 Basic Voice (1) or MUS 107 Basic Songwriting (1) or

MUS 108 Basic Instrument (1)

MUS 144 Sight Singing (3)

MUS 201 Class Piano 1 (1)

MUS 202 Class Piano 2 (1)

MUS 208 Class Piano 3 (1)

MUS 211 Theory 1 (3)

MUS 213 Theory 2 (3)

MUS 232 Aural Skills 2 (1)

MUS 311 Western Art Music to 1750 (3)

MUS 312 Western Art Music since 1750 (3)

MUS 317 Functional Piano (1)

MUS 318 Piano Proficiency (0)

MUS 322 Choral Conducting (2)

MUS 323 Instrumental Conducting (2)

MUS 331 Theory 3 (3)

MUS 332 Theory 4 (3)

MUS 333 Aural Skills 3 (1)

BA/BFA Music Core Total: 35 credit hours

## Music Education (BA)

## Required Music Core (see above): 35 credit hours

Music education majors must choose the Minor in Secondary Education through the School of Education. Students begin integration between music and education minor as early as their sophomore year. Students choose a primary area of study in voice and/or instrumental areas. It is highly recommended that music education students regularly consult with advisers in both music and education. The Music Education degree is a five-year program that conforms to the state requirements for licensure.

## Additional requirements for concentration: 27 credit hours

MUS 251 Applied Music (2-4)

MUS 260 Recital Attendance (0/0) (2 semesters required)

MUS 283 Ensemble (1/1) (2 semesters required)

MUS 350 K-12 Music Methods (3)

MUS 360 Half Recital (1)

MUS 383 Ensemble (1/1/1/1) (4semesters required)

MUS 425 Instrumental Techniques (4)

MUS 451 Applied Music (2-4)

MUS 469 Recital Attendance (0/0/0/0)

MUS 470 Full Recital (1)
Music Core: 35 credit hours

Concentration Total: 27 credit hours

Core Total: 35 credit hours Extended core: 5 credit hours Secondary Ed Minor: 28 credit hours

Total for degree: 130 credit hours minimum\*

\*The Secondary Education minor is required. Other educations requirements may apply; early advisement through the School of Education is essential. See the Minor in Secondary Education (Teacher Preparation in Secondary Education) description and requirements in the School of Education section of the catalog. English and math proficiency credit do not count toward the 130-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### Music Technology and Composition (BA)

Required Music Core (see above): 35 credit hours

## Additional requirements for concentration: 28 credit hours

MUS 220 Music Technology (3)

MUS 251 Applied Music: Songwriting (2-4)

MUS251 Applied Music: Recording (2-4)

MUS 260 Recital Attendance (0/0) (2 semesters required)

MUS 283 Ensemble (1/1) (2 semesters required)

MUS 360 Half Recital (1)

MUS 383 Ensemble (1/1/1/1) (4 semesters required)

MUS 451 Applied Music: Songwriting (2-4) MUS 451 Applied Music: Arranging (2-4) MUS 451 Applied Music: Mastering (2-4)

MUS 469 Recital Attendance (0/0/0/0) (4 semesters required)

MUS 470 Full Recital (1) MUS 475 Sound Design (3)

Music Core: 35 credit hours

MUS 477 Music Technology Practicum (2)

Concentration Total: 28 credit hours Major Total: 63 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Minor: 20 credit hours minimum Total for degree: 123 credit hours\*

#### Universal Music (BA)

## Required Music Core (see above): 35 credit hours

#### Additional requirements for concentration: 23 credit hours

MUS 220 Music Technology (3) MUS 251 Applied Music: (2-4)

MUS 260 Recital Attendance (0/0) (2 semesters required)

MUS 283 Ensemble (1/1) (2 semesters required)

MUS 360 Half Recital (1)

MUS 383 Ensemble (1/1/1/1) (4 semesters required)

MUS 451 Applied Music: (2-4)

MUS 469 Recital Attendance (0/0/0/0) (4 semesters required)

MUS 470 Full Recital (1)
Music Core: 35 credit hours
Concentration Total: 23 credit hours

Major Total: 58 credit hours
Core Total: 35 credit hours
Extended core: 5 credit hours
Minor: 20 credit hours minimum
Proficiency/electives to 120: 2 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. Additional credit hours may be necessary to fulfill the minor requirement and may exceed the minimum 120-credit degree requirement. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### **Vocal Performance (BFA)**

## Required Music Core (see above): 35 credit hours

#### Additional requirements for concentration 45 credits hours

MUS 251 Applied Music: Voice (2-4)

MUS 260 Recital Attendance (0/0)) (2 semesters required)

MUS 283 Ensemble (1/1/1/1) (4 semesters required)

MUS 320 Diction for Singers (2)

MUS 360 Half Recital (1)

MUS 383 Ensemble (1/1/1/1) (4 semesters required)

MUS 412 History of Opera (3) MUS 451 Applied Music: (2-4)

MUS 469 Recital Attendance (0/0/0/0) (4 semesters required)

MUS 470 Full Recital (1)

#### Vocal Performance Electives: 18 credit hours

Choose any 18 credit hours in Music or Theater.

Music Core: 35 credit hours
Concentration Total: 45 credit hours
Major Total: 80 credit hours
Core Total: 35 credit hours
Extended core: 5 credit hours
Total for degree: 120 credit hours\*

#### Music Production (BFA)

## Required Music Core (see above): 35 credit hours

#### Additional requirements for concentration: 39 credits

MUS 220 Music Technology (3)

MUS 251 Applied Music: Songwriting (2-4) MUS 251 Applied Music: Recording (2-4)

MUS 260 Recital Attendance (0/0) (2 semesters required)

<sup>\*</sup>A minor is required. Additional credit hours may be necessary to fulfill the minor requirement and may exceed the minimum 123-credit degree requirement. English and math proficiency credit do not count toward the 123-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

<sup>\*</sup>A minor is not required. Additional credit hours (electives) may be required and exceed the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

MUS 283 Ensemble (1/1) (2 semesters required)

MUS 360 Half Recital (1)

MUS 383 Ensemble (1/1/1/1) (4 semesters required)

MUS 425 Instrumental Techniques (4) MUS 451 Applied Music: Songwriting (2-4) MUS 451 Applied Music: Arranging (2-4) MUS 451 Applied Music: Mastering (2-4)

MUS 469 Recital Attendance (0/0/0/0) (4 semesters required)

MUS 470 Full Recital (1) MUS 475 Sound Design (3)

MUS 477 Music Technology Practicum (2)

MUS 476 Musical Theater (2/2) (2 semesters required)

#### Music Production Electives: 9 credit hours in Music or Theater.

Choose any 9 credit hours in Music or Theater.

Music core: 35 credit hours

Music Production concentration: 45 credit hours

Major Total: 80 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Total for degree: 120 credit hours\*

\*A minor is not required. Additional credit hours (electives) may be required and exceed the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

## Art (ART), Courses in

#### ART 100. Introduction to Art (3)

Presents the nature, vocabulary, media, and formal elements of art. Students will gain visual literacy, enabling them to appreciate artistic, aesthetic, and social values in art. NM Common Course Number: ARTS 1013.

## ART 121. Fundamentals of Design (3); 2, 4

An introductory studio course in design basics for both two-and-three-dimensional visual arts, including the concepts of unity, emphasis, balance, scales, rhythm, line, texture, space, motion, and color.

## ART 135-435. Selected Topics in Art (1-4 VC)

Course in a topic or topics in fine arts. May be repeated with a change of content. Prerequisite: Permission of instructor.

## ART 202. Drawing 1 (3); 2, 4

Basic drawing concepts and skills to assist the student in acquiring a graphic vocabulary in a variety of drawing media.

## ART 203. Drawing 2 (3); 2, 4

A continuation of ART 202, with emphasis placed on the figure, still life, landscape, and personal imagery. Prerequisite: ART 202 or permission of instructor.

## ART 221. Painting 1 (3); 2, 4

This course is an introduction to painting materials, techniques, color, and fundamental composition. A brief history of painting will be acquired through lectures. Prerequisites: ART 121 and 202 or permission of instructor.

## ART 231. Ceramics 1 (3); 2, 4

The fundamentals of ceramic construction involving activities in pottery and sculpture, throwing, hand building, glazing, firing, and equipment design and maintenance. Prerequisites: ART 121 and 203 or permission of instructor.

## ART 241. Sculpture 1 (3); 2, 4

Study of three-dimensional design and techniques for sculpture in nonperma-

nent materials. Prerequisites: ART 121 and 202, or permission of instructor.

#### ART 261. Jewelry and Metalsmithing 1 (3); 2, 4

A comprehensive study of the history, techniques, and processes used in the fabrication of jewelry and related small objects. Prerequisites: ART 121 and 203 or permission of instructor.

#### ART 271. Printmaking 1 (3); 2, 4

Acquisition of the basic printmaking skills of the relief processes of linoleum and woodblock, and knowledge of intaglio processes of line etch, soft and hard ground, and aquatint. The basic history of prints and editing techniques will be acquired. Prerequisites: ART 121 and 202 or permission of instructor.

## ART 285. Art Foundry 1 (3); 2, 4 Su

This course is designed to introduce students to all aspects of lost wax casting in bronze. Prerequisite: ART 241 or permission of instructor.

## ART 290. Independent Study (1-4 VC)

Individual study arranged with an instructor. Prerequisite: Permission of instructor.

#### ART 302. Life Drawing 1 (3); 2, 4 Alt, Fa

This is an advanced drawing class working with the human figure, the landscape, and still life. Students explore a variety of techniques, expressive, and conceptual approaches in image making. Prerequisite: ART 203 or permission of instructor.

#### ART 321. Painting 2 (3); 2, 4

This course is a continuation of ART 221, with an introduction to advanced painting techniques and concepts through still life, landscape, and the figure. Contemporary issues in painting will be explored through lectures. Prerequisite: ART 221 or permission of instructor.

## ART 322. Painting 3 (3); 2, 4

This course is a continuation of ART 321, with an introduction to advanced painting techniques and concepts through still life, landscape, and the figure. Contemporary issues in painting will be explored through lectures. Prerequisite: ART 221 or permission of instructor.

## ART 331. Ceramics 2 (3); 2, 4

The fundamentals of ceramic construction involving activities in pottery and sculpture, throwing, hand building, glazing, firing, and equipment design and maintenance. Prerequisite: ART 231 or permission of instructor.

## ART 334-434. Practicum (1-4 VC)

Experience in an on-or off- campus work placement. Prerequisite: Permission of instructor.

#### ART 341. Sculpture 2 (3); 2, 4

A continuation of ART 241. Exploration of three-dimensional form in permanent materials. Prerequisite: ART 241 or permission of instructor.

#### ART 361. Jewelry and Metalsmithing 2 (3); 2, 4

A comprehensive study of the history, techniques, and processes used in the fabrication of jewelry and related small objects. Prerequisite: ART 261 or permission of instructor.

## ART 371. Printmaking 2 (3); 2, 4

A continuation of ART 271, with emphasis on advanced methods of intaglio and relief processes in color, and introduction to black and white stone lithography, including color. Prerequisite: ART 271 or permission of instructor.

## ART 372. Printmaking 3 (3); 2, 4

A continuation of ART 371, with emphasis placed on innovative techniques in intaglio, the art of monotype, and advanced practices in lithography including color. Attention will be highly placed on individual imagery. Prerequisite: ART 371 or permission of instructor.

#### ART 385. Art Foundry 2 (3); 2, 4 Su

A continuation of ART 285, with an emphasis on the aesthetics of cast sculpture. Prerequisite: ART 285 or permission of instructor.

#### ART 390 - 490. Independent Study (1-4 VC)

Individual research in a selected area of art history or criticism arranged with an instructor. Prerequisite: The appropriate 300-level course and permission of instructor.

#### ART 402. Life Drawing 2 (3); 2, 4 Alt, Sp

A continuation of ART 302. Prerequisite: ART 302 or permission of instructor.

#### ART 421. Painting 3 (3); 2, 4

This course is a continuation of ART 321, with an introduction to advanced painting techniques and concepts through still life, landscape, and the figure. Contemporary issues in painting will be explored through lectures. Prerequisite: ART 321 or permission of instructor.

#### ART 422. Painting 4 (3); 2, 4

A continuation of ART 421 with emphasis placed on an individual topic decided upon by both student and instructor resulting in a series of paintings. This course is intended for majors anticipating a BFA or BA degree in studio art. May be repeated for additional credit.

#### ART 431. Ceramics 3 (3); 2, 4

A continuation of ART 331, including firing and glaze formulation. May be repeated for credit. Prerequisite: ART 331 or permission of instructor.

## ART 432. Ceramics 4 (3); 2, 4

A continuation of ART 431, including firing and glaze formulation. May be repeated for credit. Prerequisite: ART 331 or permission of instructor.

#### ART 441. Sculpture 3 (3); 2, 4

A continuation of ART 341 and an introduction to bronze casting. Prerequisite: ART 341 or permission of instructor.

#### ART 442. Sculpture 4 (3); 2, 4

A continuation of ART 441. Development of a personal aesthetic in sculpture course intended for majors anticipating the BFA or BA degree. May be repeatable for multiple credit.

## ART 461. Jewelry and Metalsmithing 3 (3); 2, 4

A continuation of ART 361. Prerequisite: ART 361 or permission of instructor.

## ART 462. Jewelry and Metalsmithing 4 (3); 2, 4

A continuation of ART 461. Prerequisite: ART 361 or permission of instructor.

## ART 472. Printmaking 4 (3); 2, 4

Continuation of ART 372, with emphasis placed on an individual topic decided upon by both student and instructor, resulting in a suite or series of images in print. This course is intended for majors anticipating a BFA or BA in art studio. May be repeated for additional credit.

## ART 485. Art Foundry 3 (3); 2, 4 Su

A continuation of ART 385, with an emphasis on refining aesthetic knowledge and technical skills. May be repeated for credit. Prerequisite: ART 385 or permission of instructor.

#### ART 486. Art Foundry 4 (3); 2, 4 Su

A continuation of ART 385, with an emphasis on refining aesthetic knowledge and technical skills. May be repeated for credit. Prerequisite: ART 385 or permission of instructor.

## ART 491. Senior Colloquium (2); Fa

This course is taken during the fall semester of the senior year of a BFA candidate. The student will make slides and prepare a portfolio and an artist's statement. Prerequisite: Permission of instructor.

## ART 495. BFA Exhibit (1); Sp

Preparation for exhibition of works in the student's major area that demonstrates ability and achievement. Faculty will provide some guidance in the projects required, however, evaluation is based on an individual's self-motivated approach. Prerequisite: Permission of instructor.

#### ART 496. Exhibit Design (3)

Students will participate in mounting a multimedia exhibit on a topic in fine arts.

#### ART 498. Professional Internship (1-6 VC)

A student will work under the joint supervision of a work supervisor and an art faculty member at an on- or off-campus site.

## Art History (AH), Courses in

#### AH 210. Art History 1 (3); Fa

Survey course of western art and architecture from pre-history to the medieval period. It is the first course in the series and focuses on art identified with the Western tradition. NM Common Course Number: AH 2113.

#### AH 211. Art History 2 (3); Sp

This is the second course in a sequence about western art and architecture from prehistory to the medieval period. NM Common Course Number: AH 2123.

#### AH 340. Modern Art (3); Sp

A survey of European and American art from the late eighteenth century until the present. Major artists and trends in painting, sculpture, photography, and architecture will be discussed, with particular emphasis on personality and innovation.

#### AH 380. Art of the Americas (3); Fa

A survey of the arts of the Americas, covering the pre-Columbian indigenous cultures, Hispanic colonial presence, and contemporary Native American and Hispanic arts.

## AH 390-490. Independent Study (1-4 VC)

Individual research in a selected area of art history or criticism arranged with an instructor. Prerequisites: AH 210 and AH 211, or permission of instructor.

#### AH 450. Seminar in Art History (3) Sp

Seminar course in a topic or topics of art history. May be repeated with a change of content. Prerequisites: AH 210 and AH 211, or permission of instructor.

## Music (MUS) Course Descriptions

#### MUS 100. Introduction to Music (3); Fa, Sp

A survey of the range of musical expressions in a variety of times and places. Examines music as a uniquely expressive means, with particular attention to its historical, social, and cultural contexts. Satisfies the fine arts requirement in the general education core. NM Common Course Number: MUS 1013

## MUS 101. Rudiments of Music (3); Fa, Sp

A study of the basic elements of music, especially the rhythmic, melodic, and harmonic aspects. Intended as a first course in music theory for students with little or no academic music background, and as a review of basic musical concepts for potential music majors and minors in preparation for the music theory sequence. Satisfies the fine arts requirement in the general education core. NM Common Course Number: MUS 1213

## MUS 104. Basic Voice (1); Fa, Sp

A study of the fundamentals of singing technique and vocal production. Repertoire will be drawn from "classical," Broadway, and folk traditions.

## MUS 107. Basic Songwriting (1); Fa, Sp

A study of the fundamentals of songwriting, including lyrics, song from, song styles, and arrangements, with an introduction to music technology. Students choose their own style of popular music.

#### MUS 108. Basic Instrument (1); Fa, Sp

A study of the fundamentals of instrumental music performance, including scales, arpeggios, practice habits, rehearsal etiquette, and solo and chamber repertoire that elevates the student's skill.

#### MUS 144. Sight Singing (3); Fa, Sp

This course enables the student to sing written melodies at first sight without the aid of a musical instrument. Topics include reading rhymic notation, recognizing key signature, seeing melodies as part of a scale, and learning the sound of musical interals.

#### MUS 201. Piano Class 1 (1); Fa, Sp

This course explores the fundamentals of piano playing while incorporating concepts in Theory 1 (MUS 211). Prerequisites: MUS 101, MUS 144 or instructor permission. Corequisite: MUS 211 or instructor permission.

## MUS 202. Piano Class 2 (1); Fa, Sp

Chord progressions, sight-reading, and harmonization with extended repertoire. Preference given to students seeking a degree in music. Prerequisite: MUS 201.

## MUS 206. Guitar Class (1); 0, 2 Var

Introduction to guitar performances in all styles. Includes basic guitar performance technique, music reading, choral accompaniment, and melody playing.

## MUS 207. Guitar Class 2 (1); 0, 2 Var

A continuation of Music 206. Intermediate-level study of guitar technique, and exploration of various styles of guitar performance. Prerequisite: MUS 206 or permission of instructor.

#### MUS 208. Piano Class 3 (1); Sp

Chord progressions, sight-reading and harmonization with extended repertoire. Preference given to students seeking a degree in music. Prerequisites: MUS 202.

## MUS 211. Music Theory 1 (3); Sp

Basics of functional harmony in the Western art music tradition. Includes harmonic analysis, composition, and ear training. Prerequisite: MUS 101 or permission of instructor. Corequisites: MUS 201 and 231.

## MUS 213. Music Theory 2 (3); Fa

Basics of functional harmony in the Western Art Music. Includes melodic, harmonic and formal analysis and composition. Prerequisites: MUS101, MUS 144 or instructor permission. Corequisite: MUS 201.

## MUS 220. Music Technology (3); Fa, Sp

A study of basic and intermediate elements of music technology including historical background, lexicon of electronic music, computer-based composition, and digital audio. For students with an interest in sound generation, audio recording, and digital audio editing. Suitable for music majors, minors, and non-majors. May be repeated for credit.

#### MUS 232. Aural Skills 2 (1); Fa

Continues to increase skills in melodic, harmonic and rhythmic dictation and sight singing. Prerequisite: MUS 231 or permission of instructor. Corequisite: MUS 202 or 213.

## MUS 235-435. Selected Topic in Music (1 -4 VC); Variable

Course in a topic or topics in music. May be repeated with change of content.

## MUS 251. Applied Music (2-4 VC); 0, 1-2, Fa, Sp

For music majors and minors only. Private study in composition, songwriting, voice, piano, guitar, strings, woodwind, brass, and percussion. Students received one, 30-minute lesson per week for each credit hour and perform before a jury at the end of the semester. May be repeated for credit. Prerequisite: Permission of Instructor. Corequisites: MUS 260 or 469 and MUS 283 or 483.

## MUS 251. Applied Music: Topics include Recording, Arranging, or Mastering (2-4 VC); Fa, Sp

For music majors only. Individualized study in a focused area of music where students receive one 30-minute lesson per week, per credit hour. Performances or presentations in convocations and final jury are required. Repeated courses vary according to degree requirements. A major course on skills and knowledge in the areas of studio and live recording techniques for voice, instruments, microphone selection and placement. Prerequisite: Instructor permission.

## MUS 251: Applied Music: Songwriting (2-4 VC); Fa, Sp

For music majors and minors only. Applied Songwriting is the individual study of writing music in a popular style, to be produced electronically on computers, with some cases of live performance. Students receive one, 30-minute lesson per week for each credit hour, and will present their work in Convocation and before a faculty jury at the end of the semester. May be repeated for credit. Prerequisite: Permission of instructor. Corequisites: Recital attendance for MUS 260 and 469. Note: an ensemble corequisite is not required for Applied Songwriting.

#### MUS 260. Recital Attendance (0); Fa, Sp

Music students attend and participate in convocations, concerts, and recital performances, creating a wider appreciation for the performing arts.

#### MUS 276-476. Musical Theatre (2); Fa, Sp

Participation in a current musical theatre production in an on-stage voice role. Assignments vary from production to production. Prerequisite: Permission of instructor.

## MUS 283-483. Ensemble (1-2 VC); Fa, Sp

Musical performance in large- and small-group contexts, both choral and instrumental. See the Schedule of Classes for a list of ensembles offered during any given semester or summer session. Course may be repeated for credit. Prerequisite: Permission of instructor.

## MUS 288. Accompaniment Resource (1); Fa, Sp

The student meets with a piano accompanist for 30 minutes each week. Available only for music majors taking Applied Music lesson in voice, brass, woodwinds, or composition. May be repeated for credit. Prerequisite: Permission of instructor. Corequisites: Recital Attendance for MUS 260 or 469 and Applied Voice, Brass, Woodwind, or Composition lessons.

## MUS 290-490. Independent Study (1 - 4 VC); 1-4, 0 Var

Individual study arranged with an instructor. May not replace a course listed in the catalog. Prerequisite: Permission of instructor.

## MUS 311. Western Art Music to 1750 (3); 3, 0 Var

An overview of the history of Western art music from the ancient world through the Medieval, Renaissance, and Baroque periods. Prerequisites: MUS 100 and 101.

## MUS 312. Western Art Music Since 1750 (3), 3, 0 Var

An overview of the history of Western art music from pre-Classical periods to the present. Prerequisites: MUS 100, 101 and 213.

## MUS 317. Functional Piano (1); Var

Score reading on the piano and harmonic study through practical applications. Prerequisites: MUS 208, 331, and 333. Corequisites: MUS 318 and 332.

## MUS 318. Piano Proficiency (0); Var

Score reading on the piano and harmonic study through practical applications. Prerequisite: MUS 208. Corequisite: MUS 317. May be repeated with permission of the instructor, with a grade of B or better in Functional Piano without retaking MUS 317.

#### MUS 320. Diction for Singers (2); 2, 0 Var

A course in the proper pronunciation of German, French, and Italian. Prerequisite: Voice Class.

## MUS 322. Choral Conducting (2); Var

This course focuses on techniques in rehearsal and performance settings of choral ensembles. Topics include: baton technique, score anaylsis, rehearsal

techniques, and performance preparation. Includes experience conducting a public choral ensemble performance. Prerequisite: MUS 213 or instructor permission.

#### MUS 323. Instrumental Conducting (2); Var

This course focuses on techniques in rehearsal and performance settings of choral ensembles. Topics include: baton technique, score anaylsis, rehearsal techniques, and performance preparation. Includes experience conducting a public instrumental ensemble performance. Prerequisite: MUS 213 or instructor permission.

## MUS 331. Theory 3 (3); 3, 0 Sp

Study of harmonic function in chromatic music, particularly focusing on modulation and advanced harmonic structures. Prerequisite: MUS 213. Corequisites: MUS 208 and 333.

## MUS 332. Theory 4 (3); 3, 0 Fa

Exploration of theories and techniques of the 19th and 20th century composition. Prerequisite: MUS 331.

#### MUS 333 Aural Skills 3 (1); Sp

Continues to increase skills in melodic, harmonic and rhythmic dictation and sight singing. Prerequisite: MUS 232. Corequisite: MUS 211 and 331.

#### MUS 350. K-12 Music Methods (3); Var

This courses explores music education methods of instruction and course planning in the context of primary and secondary education. Includes classroom management strategies with cultural sensitivity required of K-12 music educators. Prerequisite: MUS 211 or instructor permission.

#### MUS 360. Half Recital (1); 1, 0 Fa, Sp

The student will prepare a 30-minute public recital. Music technology and composition students may include a presentation of both recorded and live music. Composition students may include some computer realizations in addition to a significant proportion of live performances. Prerequisite: Permission of instructor; four semesters of corresponding applied music lessons, MUS 202, 213, and 311 or 312. Corequisites: Applied Music with the same focus as the recital performance for MUS 251 or 451 and MUS 260 or 469.

## MUS 400. Audition (3); 3, 3 Var

Explore audition techniques and preparation for community, university, and professional music theater. Prerequisite: One semester of acting class (theater) and one semester of voice class (music).

## MUS 412. The History of Opera (3); Var

An overview of the history of opera.

## MUS 425. Instrumental Techniques (4); Var

Study of performing and teaching techniques of instruments of the band and orchestra.

## MUS 450. Seminar in Music (1-4 VC); Var

Seminar course in a topic or topics in music.

#### MUS 451. Applied Music (2-4 VC); 0, 1-2, Fa, Sp

For music majors and minors only: Private study in composition, songwriting, voice, piano, guitar, strings, woodwind, brass, and percussion. Students received one, 25-minute lesson per week for each credit hour and perform before a jury at the end of the semester. May be repeated for credit. Prerequisite: Permission of instructor. Corequisites: MUS 260 or 469 and MUS 283 or 483.

## MUS 451. Applied Music: Arranging (2-4 VC); Fa, Sp

For music majors only. Individualized study in a focused area of music where students receive one 30-minute lesson per week for each credit hour. Performances or presentations in convocations and a final jury are required. Repeated courses vary according to degree requirements. The

student acquires skills and knowledge of juxtaposition in timbral, textual, and formal organization. May be repeated for credit. Prerequisite: MUS220 or instructor permission.

#### MUS 451. Applied Music: Composition (2-4 VC); Fa, Sp

For music majors and minors only. A continuation of the individual study of writing music for instrumental and vocal performances. Students receive one 30-minute lesson per week for each credit hour, and will present their work in Convocation and before a faculty jury at the end of the semester. May be repeated for credit. Prerequisites: Completion of four semesters of MUS 251. Corequisites: MUS 260 or 469 and MUS 283 or 483.

#### MUS 451. Applied Music: Mastering (2-4 VC); Fa, Sp

For music majors only. Individualized study in a focused area of music where students receive one 30-minute lesson per week for each credit hour. Performances or presentations in convocations and a final jury are required. Repeated courses vary according to degree requirements. The student acquires skills and knowledge in manipulating and mixing multi-track audio sessions, balancing sounds across the audio spectrum. Prerequisite: MUS220 or instructor permission.

#### MUS 451. Applied Music: Songwriting (2-4 VC); Fa, Sp

For music majors and minors only. A continuation of the individual study of writing music for instrumental and vocal performances. Students receive one 30-minute lesson per week for each credit hour, and will present their work in Convocation and before a faculty jury at the end of the semester. Prerequisite: MUS 251. Corequisites: MUS 260 or 469. Note: An ensemble corequisite is not required for Applied Songwriting.

#### MUS 469. Recital Attendance (0); Fa, Sp

Music students attend and participate in a variety of convocation, concert, and recital performance, creating a wider appreciation for the performing arts.

## MUS 470. Full Recital (1); 2, 0 Fa, Sp

The student prepares a 60-minute public recital, a culmination of their studies in Applied Music. Prerequisite: instructor permission.

## MUS 471. History of Jazz (3); 3, 0 Var

Study of the origins and development of jazz from traditional New Orleans jazz through big band swing, bebop, and contemporary styles. Satisfies the fine arts requirement in the general education core.

## MUS 475. Sound Design (3); Var

This course is a study of the advanced elements of sound design. Includes the historical background of sound synthesis, use of the lexicon of electronic sound generation, acquisition of the skills of sound synthesis, computer sound generation, sampling, and digital audio editing.

This course is for students with an interest in composition, audio recording, and sound effects for video, film, and games; suitable for music majors, minors, and non-majors. Prerequisite: MUS 220 or instructor permission.

## MUS 477. Music Technology Practicum (2); 0, 2 Variable

Practical experience in the recording studio, working and communicating elements of recording and digital audio editing issues with students as clients, troubleshooting problems with computers and computer software, using critical thinking to solve technical issues that often arise in the studio, researching technical issues using the Internet. (Meets trials 1, 2, 3 and 4). Prerequisite: MUS 220, with a grade of B or higher.

## Theater (THEA), Courses in

## THEA 100. Introduction to Theater (3); Var

This is a general introduction to the art of the theater that acquaints the student with the elements that make up theatrical production.

#### THEA 134-434. Theater Practicum (3); Var

This course involves technical participation in theater shows working as set crew, light crew, stagehand, running crew, etc. The student must put in labor hours arranged with the instructor.

## THEA 271. Acting 1: The Actor Prepares (3); Var

This course is an introduction to Stanislavski approach to acting and the development of the actor's resources. Included in the course are exercises in sensory awakening, imagination, focus and concentration, observation, improvisation and storytelling. The student actor is also introduced to a basic philosophical and practical approach to acting, which includes development of analytical skills, as well as understanding of vocal and movement conventions for the stage.

## THEA 272. Acting 2: Creating a Character (3); Var

A continuation of Acting 1. Creating a Character explores individual characterization using analytical techniques, observation and imagination resources to create character. Emphasis is placed on physical, vocal and psychological characterization developed through analysis, internal and external technique, and costume and prop use.

# School of Business, Media and Technology

Dr. William Taylor, Dean

Sininger Hall, Room 235

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#### School of Business, Media, and Technology oversees:

- Department of Business Administration
- Department of Media Arts & Technology

#### Mission

The School of Business, Media and Technology promotes best professional practices, preparing students for successful careers and future academic endeavors. Our active learning environment supports critical and creating thinking, cultivating ethical problem solvers.

#### **Vision Statement**

The School of Business, Media and Technology will be the premier school in the southwest, preparing students to become successful and respected professionals. We strive to extend frontiers of knowledge to solve complex problems.

## **Faculty**

#### **Business Administration**

Heath Anderson, MBA (Marketing) Farmington

Tracy Armijo, MBA, CPA (Accounting) Rio Rancho

Ali Arshad, Ph.D. (Finance & Economics) Rio Rancho

Chien-Chun Chen, Ph.D. (Marketing)

Nicolas Leger, JD (Law & Management)

Emmanuel Nkwenti-Zamcho, DBA (Management & International Business) Rio Rancho

Luis Ortiz, Ph.D. (Management & International Business)

Carla Romero, MBA (Management)

Mary Romero, MBA (Accounting)

Rod Sanchez, Ph.D. (Management) Rio Rancho

Charles Swim, DBA (Management) Rio Rancho

Keith Tucker, MBA (Finance and Management)

Kent Tucker, DBA (Finance)

Donna Vigil, MBA (Accounting)

Melanie Zollner, MBA (Management)

#### **Media Arts**

Lauren Addario, MFA (Media Arts)

Lucia Duncan, MFA (Media Arts)

Stuart Gelzer, MFA (Media Arts)

Mariah Fox Hausman, MFA (Media Arts)

Miriam Langer, MFA (Media Arts)

Angela Meron, MFA (Media Arts)

#### Technology

Stanley Cohen, Ph.D. (Software Systems Design)

Jonathan Lee, MA (Software Systems Design)

Rianne Trujillo, MSSD (Software Systems Design)

## The Department of Business Administration

Mary Romero, Department Chair

#### Accreditation

The Department of Business Administration is accredited by the Association of Collegiate Business Schools and Programs (ACBSP) to offer the bachelor of business administration (BBA) degrees with concentrations in account-

ing, finance, management, marketing and general business.



#### Mission of the Department of Business Administration

The Department of Business Administration is committed to the success of our students and to the highest observance of our professional accreditation standards. The department's goal is to be the best small business department in the Southwest, preparing students to be confident, competent, ethical and responsible decision makers, managers, leaders and agents of economic and social betterment in today's changing global business environment.

#### **Vision Statement**

The Department of Business Administration provides an inspiring multicultural learning environment that promotes excellence, empowerment, transformation, and global understanding through our core values.

- Advancement of knowledge
- Active learning
- Student success
- Diversity of ideas
- Accessible education
- Community
- Individual well-being
- Sustainable practices
- Multiculturalism

#### About

The Department of Business Administration provides academic programs that promote a solid foundation for students in leadership roles in business, government, and education. Performance standards are high for both undergraduate and graduate programs. Academic programs reflect the philosophy and common professional components of our accrediting body, Association of Collegiate Business Schools and Programs (ACBSP). In order to prepare students for professional careers, the curricula address both the specifics of the workplace and the more general aspects of society.

## **Degree Requirements: Business**

## Business General Education Core: 6 credit hours\*

\*Applies to core requirements.

MATH 140 College Algebra (3) (Math Area)

ECON 216 Macroeconomics (3) (Social and Behavioral Sciences Area)

## Business Education Major Core: 45 credit hours

\*Business Core is required for all business majors

BUS 200 Business Analysis Methods (3)

MATH 145 Introduction to Statistics (3)

ECON 217 Principles of Microeconomics (3)

ACCT 287 Principles of Financial Accounting (3)

ACCT 288 Principles of Managerial Accounting (3)

MKTG 302 Principles of Marketing (3)

MGMT 303 Principles of Management (3)

MGMT 321 Business Ethics (3)

MGMT 325 Operations Research & Scientific Mgmt (3)

FIN 341 Financial Management 1 (3)

BLAW 360 Business Law (3)

ENGL 367 Technical Writing (3)

BUS 411 Business Research (3)

INTB 440 International Business (3)

MGMT 489 Strategic Management (last semester) (3)

Major Core Total: 45 credit hours

#### **BBA** concentrations:

Concentration in Accounting (BBA)

#### Required courses: 24 credit hours

ACCT 321 Individual Taxation (3)

ACCT 387 Intermediate Accounting 1 (3)

ACCT 388 Intermediate Accounting 2 (3)

ACCT 404 Cost Accounting (3)

ACCT 410 Accounting Technology (3)

ACCT 485 Financial Statement Analysis (3)

ACCT 489 Governmental Accounting (3)

ACCT 492 Auditing (3)

Concentration Total: 24 credit hours

Major Total: 69 credit hours Core Total: 35 credit hours

Extended core: 5 credit hours

Proficiency/electives to 120: 11 credit hours

Total for degree: 120 credit hours\*

\*A concentration is required. Additional credit hours (electives) may be required and may exceed the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### Concentration in Finance (BBA)

#### Required courses: 24 credit hours

FIN 343 Advanced Corporate Finance (3)

FIN 405 Financial Markets & Institutions (3)

FIN 409 Investments (3)

FIN 475 International Finance (3)

ACCT 485 Financial Statement Analysis (3)

## Electives:

9 credit hours. Select three upper division Business Administration courses.

Concentration Total: 24 credit hours

Major Total: 69 credit hours Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/electives to 120: 11 credit hours

Total for degree: 120 credit hours\*

\*A concentration is required. Additional credit hours (electives) may be required and may exceed the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### Concentration in Management (BBA)

#### Required courses: 24 credit hours

MGMT 386 Human Resource Management (3) MGMT 453 Organizational Leadership (3)

MGMT 465 Personnel Practice & the Law (3)

MIS 480 Project Management (3)

FIN 343 Advanced Corporate Finance (3)

MGMT 431 Entrepreneurial Forum (3)

#### Electives

6 credit hours. Select two upper division Business Administration courses.

Concentration Total: 24 credit hours

Major Total: 69 credit hours Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/electives to 120: 11 credit hours

Total for degree: 120 credit hours\*

\*A concentration is required Additional credit hours (electives) may be required and may exceed the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### Concentration in Marketing (BBA)

## Required courses: 24 credit hours

MKTG 415 Consumer Behavior (3)

MKTG 489 Strategic Brand Management (3)

MKTG 473 Advertising (3)

MKTG 484 Marketing Management (3)

#### Choose one:

MKTG 451 Internet Marketing Strategies (3) OR

MKTG 446 Social media (3)

#### Electives:

9 credit hours. Select three upper division Business Administration courses.

Concentration Total: 24 credit hours Major Total: 69 credit hours Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/electives to 120: 11 credit hours

Total for degree: 120 credit hours\*

\*A concentration is required. Additional credit hours (electives) may be required and may exceed the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

## Concentration in Media Marketing (BBA)

The optional media marketing emphasis integrates traditional marketing knowledge with tools from the creative side of marketing. Students learn design fundamentals and applications to plan and implement marketing campaigns in media such as digital film, Internet advertising, and traditional print media.

## Required courses: 28 credit hours

MART 121 Visual Concepts (4)

MART 233 Imaging History & Production (4)

MKTG 415 Consumer Behavior (3)

 $MKTG\ 473\ Advertising\ (3)$ 

MKTG 484 Marketing Management (3)

#### Choose one:

MART 221 Videography (4) OR MART 243 Digital Photography (4)

## Choose one:

MART 373 Typography (4) OR MART 313 Design for the Web (4)

#### Choose one

MKTG 451 Internet Marketing Strategies (3) OR

MKTG 446 Social Media (3) Concentration Total: 28 credit hours Major Total: 73 credit hours

Core Total: 35 credit hours Extended core: 5 credit hours

## Proficiency/electives to 120: 7 credit hours Total for degree: 120 credit hours\*

\*A concentration is required. Additional credit hours (electives) may be required and may exceed the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### Concentration in General Business (BBA)

#### Required: 24 credit hours

- 1. Electives: 15 credit hours. Select five (5) Business Administration
- 2. Upper Division Electives: 9 credit hours. Select three (3) Upper Division courses

Concentration Total: 24 credit hours Major Total: 69 credit hours Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/electives to 120: 11 credit hours

Total for degree: 120 credit hours\*

\*A concentration is required. Additional credit hours (electives) may be required and may exceed the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### Minors in Business

## **Minor in Accounting**

#### Required courses: 21 credit hours

BUS 200 Business Analytical Methods (3)

MGMT 321 Business Ethics (3)

ACCT 287 Principles of Financial Accounting (3)

ACCT 288 Principles of Managerial Accounting (3)

ACCT 387 Intermediate Accounting 1 (3)

ACCT 388 Intermediate Accounting 2 (3)

ACCT 321 Individual Taxation (3)

#### Electives: 3 credit hours

## Choose one course from the following list in consultation with an adviser.

ACCT 404 Cost Accounting (3)

ACCT 410 Accounting Technology (3)

ACCT 485 Financial Statement Analysis (3)

ACCT 489 Governmental Accounting (3)

ACCT 492 Auditing (3)

Minor Total: 24 credit hours

#### Minor in General Business: 24 credit hours

BUS 200 Business Analytical Methods (3)

ACCT 287 Principles of Financial Accounting (3)

BLAW 360 Business Law & Ethics (3)

ECON 217 Principles of Microeconomics (3)

FIN 341 Financial Management I (3)

MGMT 303 Principles of Management (3)

MKTG 302 Principles of Marketing (3)

MGMT 321 Business Ethics (3)

Minor Total: 24 credit hours

## ACCT 287 Principles of Financial Accounting (3)

MGMT 321 Business Ethics (3)

ECON 217 Principles of Microeconomics (3)

FIN 341 Financial Management 1 (3)

FIN 343 Advanced Corporate Finance (3)

FIN 405 Financial Markets & Institutions (3)

FIN 409 Investments (3) Minor Total: 21 credit hours

#### **Minor in Management**

#### Required courses: 21 credit hours

ACCT 287 Principles of Financial Accounting (3)

ECON 217 Principles of Microeconomics (3)

MGMT 321 Business Ethics (3)

MGMT 303 Principles of Management (3)

MKTG 302 Principles of Marketing (3)

## Choose two (2) of the following courses:

MGMT 386 Human Resource Management (3)

MGMT 453 Organizational Leadership (3)

MGMT 465 Personnel Practices and Law (3)

MIS 480 Project Management (3)

FIN 341 Financial Management 1 (3)

MGMT 431 Entrepreneurial Forum (3)

Minor Total: 21 credit hours

#### Minor in Marketing

## Required courses: 21 credit hours

ECON 217 Principles of Microeconomics (3)

MGMT 321 Business Ethics (3)

MKTG 302 Principles of Marketing (3)

MKTG 415 Consumer Behavior (3)

MKTG 473 Advertising (3)

MKTG 484 Marketing Management (3)

Choose one (1) of the following:

MKTG 451 Internet Marketing Strategies (3) OR

MKTG 446 Social Media (3)

Minor Total: 24 credit hours

## **Certificates in Business**

## Certificate in Accounting (undergraduate)

## Proficiency

Students must have taken or take ACCT 287 Principles of Financial Accounting and ACCT 288 Principles of Managerial Accounting.

## Required courses: 18 credit hours

ACCT 387 Intermediate Accounting 1 (3)

ACCT 388 Intermediate Accounting 2 (3)

#### Choose four (4) course, 12 hours from the following list:

ACCT 321 Individual Taxation (3)

ACCT 404 Cost Accounting (3)

ACCT 410 Accounting Technology (3)

ACCT 485 Financial Statement Analysis (3)

ACCT 489 Governmental Accounting (3)

ACCT 492 Auditing (3)

MGMT 321 Business Ethics (3)

Total hours required: 18 credit hours

## Minor in Finance

Required courses: 21 credit hours

#### **Certificate in Finance (undergraduate)**

#### Proficiency:

Students must have taken or take ACCT 287 Principles of Financial Accounting and ECON 217 Microeconomics.

#### Required Courses: 18 credit hours

MGMT 321 Business Ethics (3)

FIN 341 Financial Management (3)

FIN 343 Advanced Corporate Finance (3)

FIN 405 Financial Markets & Institutions (3)

FIN 409 Investments (3)

ACCT 485 Financial Statement Analysis (3)

Total hours required: 18 credit hours

## Certificate in Human Resources Management (Undergraduate)

#### Proficiency:

Students must have taken or take MGMT 303 Principles of Management.

#### Required Courses: 18 credit hours

MGMT 321 Business Ethics (3)

MGMT 386 Human Resources Management (3)

MGMT 453 Organizational Leadership (3)

MGMT 465 Personnel Practices and Law (3)

MGMT 431 Entrepreneurial Forum (3)

MIS 480 Project Management (3) Total hours required: 18 credit hours

## Certificate in Marketing (undergraduate)

#### Proficiency:

Students must have taken or take MKTG 302 Principles of Marketing.

#### Required Courses: 18 credit hours

MKTG 489 Strategic Brand Management (3)

MKTG 415 Consumer Behavior (3)

MKTG 446 Social Media (3)

MKTG 451 Internet Marketing Strategies (3)

MKTG 473 Advertising (3)

MKTG 484 Marketing Management (3)

Total hours required: 18 credit hours

## Accounting (ACCT), Courses in

#### ACCT 287. Principles of Financial Accounting (3); Fa, Sp

An introduction to financial accounting concepts emphasizing the analysis of business transactions in accordance with generally accepted accounting principles (GAAP), the effect of these transactions on the financial statements, financial analysis, and the interrelationships of the financial statements.

## ACCT 288. Principles of Managerial Account (3); Fa, Sp

An introduction to the use of accounting information in the management decision making processes of planning, implementing, and controlling business activities. In addition, the course will discuss the accumulation and classification of costs as well as demonstrate the difference between costing systems.

## ACCT 290 - 490. Independent Study (1-4 VC); Var

Independent study arranged with an instructor. Prerequisite: Permission of instructor.

#### ACCT 321. Individual Taxation (3); Fa

Study of federal tax legislation as applied to individual incomes, with some study of taxation on business. Recommended for non-business majors. Prerequisite: ACCT 287 or permission of instructor.

## ACCT 387. Intermediate Accounting 1 (3); Fa, Sp

Critical study of standards for asset valuation and income determination. Prerequisites: ACCT 288 or permission of instructor.

#### ACCT 388. Intermediate Accounting 2 (3); Fa, Sp

A continuation of ACCT 387. Study of liabilities recognition and measurement and stockholder's equity. Prerequisite: ACCT 387 or permission of instructor.

#### ACCT 404. Cost Accounting (3); Fa

A study of the job order, process, and standard cost system. Prerequisites: ACCT 288 and BUS 200 or permission of instructor.

## ACCT 410. Accounting Technology (3); Fa, Sp

A study of computerized financial accounting technology using integrated accounting systems. Prerequisite: ACCT 287

#### ACCT 435. Selected Topics in Accounting (3); Variable

Course in a topic or topics in accounting. May be repeated with a change in content.

#### ACCT 485. Financial Statement Analysis (3); Sp

This course provides a foundation for reading and interpreting a firm's financial statements. The course focuses on a firm's 10-K fillings with the Securities and Exchange Commission (SEC). The course will analyze various components of the firm's filings, including financial statements, management discussion and analysis, footnotes, and auditor's opinion on financial statements and footnotes. The course covers both the practical interpretation from reading the firm's 10-K and the underlying accounting theory. Prerequisites: ACCT 287 and FIN 341.

#### ACCT 489. Governmental Accounting (3); Sp

This course covers accounting principles and procedures for governmental and institutional units and fiduciaries. In addition, the course provides a foundation for not-for-profit accounting. Prerequisite: ACCT 287.

## ACCT 492. Auditing (3); Sp

Techniques of auditing procedures. Prerequisite: ACCT 388 or permission of instructor.

#### Business (BUS), Courses in

## BUS 200. Business Analysis Methods (3); Fa, Sp

This course applies algebraic concepts in solving and analyzing practical business problems. It introduces the student to the practical application and use of spreadsheets in applying equations and formulas, creating graphs, and statistical data analysis to problems that students will encounter. Presentation software will also be introduced for preparing business communications.

#### BUS 235 - 335. Selected Topics in Business (1-4 VC); Var

Course in a topic or topics in business. May be repeated with a change in content.

#### BUS 434. Practicum (1-4 VC)

Work placement with specific responsibilities over a sustained period of time. Prerequisite: Permission of instructor.

## BUS 411. Business Research (3); Fa, Sp

Apply qualitative and quantitative research methods to address different business problems. Analyze and be able to interpret data, prepare reports and make presentations of findings. Prerequisite: BUS 200 and MATH 145 or permission of instructor.

#### BUS 490. Independent Study (1-4 VC); Var

Independent study in Business. Prerequisite: Permission of instructor.

## Business Law (BLAW), Courses in

#### BLAW 360. Business Law 1 (3)

Survey of the legal environment of business and common legal principles including: the sources of law, dispute resolution and the U.S. court systems, administrative law, tort law, contract law, agency and employment law, business structure and governance, ethics and corporate social responsibility.

Explores sources of liability and presents strategies to minimize legal risk. Introduction to legal institutions, nature and sources of law, the ethical foundations underlying the law, and in-depth study of the law of contracts.

## Economics (ECON), Courses in

#### ECON 216. Principles of Macroeconomics (3); Fa, Sp

Introduces macroeconomic theory and explores interrelationships involving inflation, unemployment, gross national product, taxes, government spending and the domestic and world monetary systems. Prerequisite: MATH 140 or permission of instructor. NM Common Course Number: ECON 2113.

#### ECON 217. Principles of Microeconomics (3); Fa, Sp

Introduces microeconomic theory and explores market allocation of resources; supply and demand; theory of marginal analysis; market types; market failure; regulation and antitrust; economic growth and innovation; business finance; economic globalization; and cultures of capitalism.

#### Finance (FIN), Courses in

## FIN 135-435. Selected Topics in Finance, Variable

Course in topics in finance. May be repeated with change of content.

## FIN 341. Financial Management 1 (3); Fa, Sp

Provides an introduction to tools and techniques of financial management. Includes time value of money; financial planning, diversification and risk; debt and equity investment decisions; and financial statement analysis.

## FIN 343. Advanced Corporate Finance (3); Fa, Sp

The focus of this class is on the analytical problem-solving of financial needs, risk assessment, and the acquisition of resources. This course deals with long-term financial needs of the corporation, long-term debt and lease financing, common and preferred stocks financing, the use of other financial instruments including convertible securities and warrants, and external growth through mergers. Time value of money techniques will be applied to valuation and rates of return for the firm, the cost of capital and the capital budgeting process. Prerequisites: FIN 341 or FIN 241

## FIN 405. Financial Markets and Institutions (3); Fa

This course focuses on the use of financial markets by the private and public sectors and the facilitating role played by intermediary agents. The course relies on the basic tools of micro- and macroeconomics theory in the study of private and public financial behavior and the problems posed for public policy. Prerequisite: ECON 217.

## FIN 409. Investments (3); Fa, Sp

This course provides students with an understanding of investment theory and practices and the various types of securities traded in financial markets. It focuses on investment strategies and portfolio construction and management. Prerequisite: MATH 140.

## FIN 475. International Finance (3); Fa, Sp

An overview of the workings of trade and finance in an international setting. Particular attention is given to handling problems associated with exchange rate movements, sources of funds for overseas operations and investments, and criteria to judge foreign investment opportunities. Prerequisite: FIN 341.

## FIN 490. Independent Study (1-4 VC); Variable

Individual, directed study arranged with an instructor. Prerequisite: Permission of instructor.

## International Business (INTB), Courses in

#### INTB 435. Selected Topic in International Business, Variable

Course in topic or topics in international business. May be repeated with change of content.

#### INTB 440. International Business (3); Fa, Sp

International Business surveys key elements of international business, focusing on factors influencing management decision-making in an international setting. The course explores how managers respond to economic, political, cultural and social factors facing business. Prerequisites: ECON 216 and 217 or permission of the instructor.

## Management (MGMT), Courses in

## MGMT 303. Principles of Management (3); Fa, Sp

An introduction to the basic theory of management including the functions of planning, organizing, staffing, leading, and controlling; while considering mangement's ethical and social responsibilities.

## MGMT 321. Business Ethics (3); Fa, Sp

Moral reasoning and issues in business with an emphasis on the application of ethical theories to practical business decision-making.

## MGMT 325. Operations Research and Scientific Management (3); Fa, Sp

This course prepares the student to apply analytical approaches to formulating and solving business and technical management problems, including the use of linear programming for resource allocation, transportation problems, and forecasting. Prerequisites: BUS 110 and BUS 210.

## MGMT 386. Human Resource Management (3); Fa, Sp

Theories, policies, practices, and problems underlying public and private programs for the development of human resources. Methods of management such as TQM will be introduced.

## MGMT 431. Entrepreneurial Forum (3); Fa, Sp

Ownership and operation of one's own business is an overwhelming drive for many people. This course explores starting a business, including understanding the right questions to ask about all aspects of business operations, such as financing, buying, sales and marketing, cost considerations, cash conversion concepts, product and service delivery, customer service, personnel issues, pricing policies, accounting and financial record keeping, and reporting for start-up purposes and for planning for future success.

#### MGMT 435. Selected Topics (1-4 VC); Var

Course in a topic or topics in management. May be repeated with a change of content.

## MGMT 453. Organizational Leadership (3); Fa, Sp

This course addresses the fundamental aspects of leading and motivating people. It includes understanding and working with people on an individual basis as well as leading groups. High-performing organizations and the challenges of leading change in organizations are covered. Prerequisite: MGMT 303.

## MGMT 465. Personnel Practices and the Law (3); Fa, Sp

This course addresses the increasing intrusion of the law into personnel functions by familiarizing students with the Equal Employment Opportunity and personnel law. Such topics as the Family Medical Leave Act and the Americans with Disabilities Act will be discussed as they relate to personnel practices. Prerequisite: MGMT 303.

## MGMT 489. Strategic Management (3); Fa, Sp

This course is designed as the capstone business course. Strategic management and business policy is studied using various analytical tools and case studies. The outcomes assessment test will be given to all students enrolled in this class. The test may be scheduled for a time other than the class meeting. Prerequisites: Completion of business core and senior standing, or permission of instructor.

#### MGMT 490. Independent Study (1-4 VC); Var

Individual study arranged with an instructor. Prerequisite: Permission of the instructor.

## Marketing (MKTG), Courses in

#### MKTG 302. Principles of Marketing (3); Fa, Sp

Survey of modern marketing concepts and practices focusing on the marketing mix: product, pricing, promotion, and distribution strategies. Topics include; the marketing environment, consumer behavior, marketing research, target marketing, and the ethical and social responsibilities of marketers.

## MKTG 415. Consumer Behavior (3); Sp

Introduction of the study of how and why consumers buy products and services. Study of the psychological, sociological, behavioral, and cultural aspects of the buying decision and how firms can use this information to sell more effectively in the marketplace. Prerequisite: MKTG 302.

#### MKTG 435. Selected Topics in Marketing (1-4 VC); Var

Course in a topic or topics in marketing. May be repeated with a change of content.

#### MKTG 446. Social Media (3); Sp

Social media represents one of the most significant changes in consumer media behavior in history, resulting in fundamental shifts in the way marketers communicate and interact with consumers. This course provides the practical knowledge and insights required to establish objectives and strategies, properly select the social media platforms to engage consumers, and monitor and measure the results of these efforts. Prerequisite: MKTG 302 or equivalent.

#### MKTG 451. Internet Marketing Strategies (3); Fa

The course focuses on the place of Internet marketing in an integrated marketing strategy, consumer behavior on the Internet, current Internet marketing practices, and the future of Internet marketing. Prerequisite: MKTG 302, cross-listed as MKTG 451.

#### MKTG 473. Advertising (3); Fa, Sp

This course examines the role of advertising and promotion in a firm's integrated marketing communications strategy. Traditional advertising functions and strategies are analyzed along with new forms of advertising and promotion driven by changing technology.

#### MKTG 474. International Marketing (3); Sp

Objectives, problems, and challenges facing those who engage in marketing operations in foreign countries. Foreign marketing organizations, cultural dynamics, trade channels, the legal environment, and political considerations are examined. Prerequisite: MKTG 302.

#### MKTG 484. Marketing Management (3); Sp

The approaches and problems of marketing decision-making, considered from the standpoint of the marketing manager. Prerequisite: MKTG 302, ENGL 367, or permission of instructor.

#### MKTG 489. Strategic Brand Marketing (3); Fa

This course will offer an overview of brands, branding, brand strategy, brand portfolios and brand management. Students will examine how to create and maintain strong brands and brand portfolios. This course will focus on types of communication used to create and build brands and brand relationships.

#### MKTG 490. Independent Study (1-4 VC) Var

Individual study arranged with an instructor. Prerequisite: Permission of instructor.

## Management Information Systems (MIS), Courses in

## MIS 335. Selected Topics in Information Systems (1-4 VC)

Course in a topic or topics in information systems. May be repeated with a change of content.

#### MIS 480. Project Management (3); Fa, Sp

This course illustrates important aspects of project management, an essential function in both for-profit and not-for-profit organizations. Students will work in teams to study the importance of planning, resource allocation, metrics, tracking, and reporting project costs and schedules. State-of-the-art software will be used for an extensive project during the course of the semester.

#### MIS 490. Independent Study (1-4 VC); Variable

Individual study arranged with an instructor. Prerequisite: Permission of instructor.

## **Department of Media Arts and Technology**

Miriam Langer, Department Chair, interim

Trolley Building, Room 136 505.454.3588

E-mail: melanger@nmhu.edu

## Description

The Department of Media Arts & Technology includes instructional programs in media arts and software systems design.

#### Mission of the Department of Media Arts & Technology

The general mission of the Department of Media Arts & Technology is to educate students in the technical skills, theoretical underpinnings, and the sociocultural context for the disciplines represented by the academic programs. The department seeks to inspire students to work creatively and collaboratively towards the goal of contributing to our own communities. Collaboration, experimentation, and a willingness to push the boundaries of where art and technology intersect are the hallmarks of the department.

In its collaborative enterprises, the department provides opportunities for students to work closely with faculty and staff in its academic courses. Community organizations and cultural institutions join the department for many projects and activities. The department aims to incorporate elements from Northern New Mexico's history of arts and innovation and the rich heritage of Hispanic and Native American cultures that are distinctive to the state of New Mexico. Ultimately, the department aims to prepare its students for an active professional life in each discipline through the knowledge, creativity, teaching skills, and dedication of its faculty and staff, showing excellence in teaching, experimentation, scholarship, and professional applications.

#### **Resources and Facilities**

New Mexico Highlands University provides the Media Arts Building with state-of-the-art computer systems; a green screen special effects studio; professional video and photography equipment and labs, a physical computing labs; and five computer labs dedicated to video graphics, effects and animation, and high-end design and printing.

The New Mexico Museum of Natural History and Science provides classroom and lab space in Albuquerque for the exclusive use of the Media Arts and Technology Department.

#### Media Arts (BFA)

## Tier 1: Media Arts Foundation: 16 credit hours

MART 121 Visual Concepts (4)

MART 220 Color Theory and Ideational Concepts (4)

MART 233 Imaging History and Production (4)

MART 350 Media Arts Seminar (4)

#### Tier 2: Major: 16 credit hours

MART 221 Videography (4)

MART 243 Digital Photography (4)

MART 318 Principles of Multimedia (4)

MART 373 Typography (4)

Total Requirements: 32 hours

Students will complete one of the following areas of emphasis:

#### Tier 3: Visual Communication Emphasis: 40 credit hours

MART 311 Graphics and Meaning (4)

MART 317 Publication Design (4)

MART 412 History of Design (4)

MART 461 Advanced Design Practices (4)

MART 475 Advanced Screenwriting Workshop (4)

MART 465 Advanced Media Projects (4)

#### Electives:

16 credit hours chosen with adviser.

BFA Core: 32 credit hours Emphasis: 40 credit hours Major Total: 72 credit hours

#### Tier 3: Multimedia & Interactivity Emphasis: 36 credit hours

MART 327 Web Production Workshop (4)

MART 456 Physical Computing (4)

MART 457 Surround & Installation Workshop (4)

MART 472 Distributed Network Production (4)

MART 465 Advanced Media Projects (4)

#### **Electives:**

16 credit hours chosen with adviser

BFA Core: 32 credit hours Emphasis: 36 credit hours Major Total: 68 credit hours

## Tier 3: Video & Audio Emphasis: 32 credit hours

MART 322 HD Cinema Workshop (4)

MART 413 Non-Linear Digital Video Editing (4)

MART 446 Screenwriting (4)

MART 465 Advanced Media Projects (4)

#### **Electives:**

16 credit hours chosen with adviser

BFA Core: 32 credit hours Emphasis: 32 credit hours Major Total: 64 credit hours

## Tier 3: Photographic Imaging Emphasis: 32 credit hours

\*Concentration not currently offered\*

MART 447 Studio Photography III (4)

MART 449 Contemporary Photography IV (4)

MART 460 Alternative Photography (4)

MART 465 Advanced Media Projects (4)

#### **Electives:**

16 credit hours chosen with adviser.

BFA Core: 32 credit hours Emphasis: 32 credit hours Major Total: 64 credit hours

Major Total: 64 - 72 credit hours, depending upon emphasis

Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/Electives to 120: 8 - 16 credit hours, depending upon emphasis

Total for degree: 120 credit hours\*

\*No minor is required. Additional credit hours may be required to meet the 120-credit degree requirement is proficiency or other required courses are waived for content credit only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### Media Arts (BA)

## Core requirements: 32 credit hours

Tier 1: Media Arts Prerequisites: 16 credit hours

MART 121 Visual Concepts (4)

MART 220 Color Theory and Ideational Concepts (4)

MART 233 Imaging History and Production (4)

MART 350 Media Arts Seminar (4)

Tier 2: Major: 16 credit hours

MART 221 Videography (4)

MART 243 Digital Photography (4)

MART 318 Principles of Multimedia (4)

MART 373 Typography (4)

#### Electives: 4 credit hours

Students will complete four upper-division elective credit hours in media arts in consultation with an adviser.

Major Total: 36 credit hours Core Total: 35 credit hours Extended core: 5 credit hours Minor: 18 credit hours minimum

Proficiency/Electives to 120: 26 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number credit hours required by the major and minor. Additional credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

#### **Media Arts Minor**

#### Tier 1: Media Arts Foundation: 16 credit hours

MART 121 Visual Concepts (4)

MART 220 Color Theory and Ideational Concepts (4)

MART 233 Imaging History and Production (4)

MART 350 Media Arts Seminar (4)

#### Tier 2: Minor: 8 credit hours

#### Choose two courses:

MART 221 Videography (4)

MART 243 Digital Photography (4

MART 318 Principles of Multimedia (4)

MART 373 Typography (4) Minor Total: 24 credit hours

## Interactive Cultural Technology Certificate (PICT)

#### Required courses: 12 credit hours

MART 326 Multimedia Project Management (4)

MART 495 Exhibition Design (4)

MART 498 Professional Internship (4)

#### Electives: 6 credit hours

Students will complete six elective, upper division credit hours in media arts at the 300-400 level.

Certificate total: 18 credit hours

## Software Systems Design (BSSD)

#### Required courses (38-40 hours)

## Tier 1: Required courses: 20 credit hours

CS 144 Intro to Computer Science (3)

CS 145 Intro to Object-Oriented Prog (3)

MART 233 Digital Imaging (4)

MART 318 Principles of Multimedia (4)

SSD 340 Programming & Logic (3)

OR

CS 314 The C++ Prog Language (3)

SSD 352 Javascript (3)

Tier 2: Required courses: 9 credit hours

SSD 331 Web Applications (3)

SSD 341 Applied Algorithms & Architecture (3)

SSD 420 Mobile Applications (3)

## Additional required courses: 9-11 credit hours

SSD 334 Practicum (4)

SSD 434 Practicum (4)

MART 498 Professional Internship (1-6)

## Tier 3: Electives: 21 credit hours

## Choose seven courses from the following list:

SSD 365 Patterns & Pattern Languages (3)

SSD 370 Interfaces (3)

SSD 382 Agile Project Management (3)

SSD 415 Game Development (3)

SSD 425 Advanced Mobile Apps (3)

SSD 430 Advanced Web Apps (3)

SSD 447 Ambient Computing (3)

MART 311 Graphics & Meaning (4)

MART 313 Design for the Web (4)

MART 363 Video Animation (4

MART 415 Design Projects for the Community (4)

MART 456 Physical Computing (4)

CS 380 Computer Modeling & Simulation (3)

CS 473 Artificial Neural Networks (3)

CS 474 Machine Learning Algorithms (3)

Major Total: 59 - 61 credit hours Core Total: 35 credit hours Extended core: 5 credit hours

Minor: 18 credit hours minimum

Proficiency/Electives to 120: 6-8 credit hours

Total for degree: 120 credit hours\*

\*A minor is required. The number of electives to reach the degree total of 120 credit hours will vary by the number credit hours required by the major and minor. Additional credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. English and math proficiency credit do not count toward the 120-credit requirement. The university requires a minimum of 45 upper-division units for the degree.

## **Software Systems Design Minor**

## Required courses (29 hours)

#### Tier1: Required courses: 20 credit hours

MART 233 Digital Imaging (4)

MART 318 Principles of Multimedia (4)

CS 144 Intro to Computer Science (3)

CS 145 Intro to Object-Oriented Prog (3)

SSD 340 Programming & Logic (3)

OR

CS 314 The C++ Prog Language (3)

SSD 352 Javascript (3)

## Tier2: Required courses: 9 credit hours

SSD 331 Web Applications (3)

SSD 341 Applied Algorithms & Architecture (3)

SSD 420 Mobile Applications (3)

SSD Minor Total: 29 credit hours

## **Interactive Cultural Technology Certificate**

The objectives of the Program in Interactive Cultural Technology (PICT) are to learn industry-standard practices and principles while working in a hands-on, collaborative environment with museum staff and in a museum setting. The students conceive, produce, and fabricate materials for an exhibition space. The outcomes assessment would not be unlike another production-based course. Attendance, professionalism, comprehension, verbal skills, proficiency of necessary software, and critical thinking all come into play. Recent PICT projects include "Emergence: A New View of Life's Ori-

gins" at the New Mexico Museum of Natural History and Science and "The Science of Cities" at the Santa Fe Children's Museum. (See requirements)

### **Interdisciplinary Bachelor of Fine Arts**

The fine arts and media arts BFA is designed to address a creative trend in art that combines electronic media with traditional media. This degree applies to those wishing to use multimedia for the sake of expression. The program creates a bridge between traditional and electronic media beyond the need for documentation and exhibition. For program details, see Department of Visual and Performing Arts section of this catalog.

## Media Arts (MART), Courses in

#### MART 121. Visual Concepts (4); Fa, Sp

An introductory course in visual literacy for both two-and three-dimensional visual arts, including the concepts of unity, emphasis, balance, scale, rhythm, line, texture, space, motion, and color. Design thinking principles will be integrated within an interactive, ideational drawing approach. Students will become acquainted with these fundamental visual concepts through the use of both manual and digital tools.

### MART 135-435. Selected Topics in Media Arts (1-4 VC); Variable

Course in a topic or topics in media arts. May be repeated with a change of content. Prerequisite: Permission of instructor.

## MART 220. Color Theory and Ideational Concepts (4); Sp

In the fields of Media Arts, the art of ideational concepting using, arranging & designing with color to communicate important worded & visual messages is one of the many important skills expected of an entry level visual communicator. The foundation of this class is the historical & cultural contexts for the evolution of color theory in print, film & digital media. As future communication designers/graphic designers, videographers, typographers, filmmakers etc., you will be expected to be adept in the nuanced art of choosing, organizing & arranging appropriate & meaningful colors within all aspects of these related fields of visual communication.

## MART 221. Videography (4); 2, 2 Fa

The study of the basic production theories of video production with special emphasis in the areas of camera operation, shot composition, shot sequencing, and lighting.

#### MART 233. Imaging History and Production (4); Fa, Sp

This course introduces students to computer graphics technology as it applies to art and design. Students will study the history and theory of the reproduced image while gaining practical experience with raster- and vector-based technologies. Students will further develop their critical thinking skills by engaging in critique of their own work and the work of their peers.

#### MART 243. Digital Photography (4); Fa

A creative, historic, and conceptual exploration of the medium of photography. Students will learn to utilize their cameras, digitally manipulate their images, and articulate their work in the context of the lexicon of photography. Prerequisite: MART 121 of Permission of Instructor.

#### MART 261. History of Motion Pictures (3); 2, 2 Fa, Sp

A course for both majors and non-majors intended to familiarize students with the technological and aesthetic evolution of motion picture. Students will be introduced to the major genres through viewing and analyzing representative films. Satisfies the fine arts requirement in the general education core.

### MART 290-490. Independent Study (1-4 VC); Fa, Sp, Su

Individual, directed study arranged with an instructor. Prerequisite: Permission of instructor.

#### MART 298-498. Internship (1-6 VC); Fa, Sp, Su

A student will work under the joint supervision of a work supervisor and a faculty member at an on-or off-campus site. Prerequisite: Permission of instructor.

#### MART 305. Digital Painting (4); Fa

A course designed for students interested in learning how to create digital artworks using industry standard software and hardware. Students will use a digital painting application to recreate the analog tools found in an artist's studio (painting, ink drawing, pastels, and other techniques).

#### MART 311. Graphics and Meaning (4); Fa

The purpose of this class is to introduce you to the Creative Processes, Conceptual Methods and stages of Iterative Thinking in the development of successful ideas & solutions that present appropriate visual messages for corporations, profitable or non-profitable organizations, institutions, teams, or individuals who want to sell a service, product, idea or way of life. In addition, emphasis will be placed upon understanding visual meaning and the power of ideas & words in relationship to visual message & communications.

### MART 313. Design for the Web (4); Sp

This course is designed to introduce digitally savvy students to website structure, design, function, and terminology. Students will practice current industry standard development code, including HTML5, CSS3, Javascript and basic php. Prerequisites: MART 233 and 121.

### MART 317. Publication Design (4); Sp

This course comprehensively explores the process of designing for print & digital multipage publications such as book design, magazine design, newspaper design & digital publication. Significant emphasis will be placed upon the use of grids, complex & simple layouts, pagination, multi-page spreads, typography, visual & informational hierarchy with primary focus upon page layout software. Prerequisites: MART 373, 121 and 220.

### MART 318. Principles of Multimedia (4); Fa

The purpose of this class is to introduce students to the concepts & applications of a multimedia programming environment, address user interaction design, & current industry applications. Prerequisites: MART 233 or co-enrollment.

#### MART 322. HD Cinema Workshop (4); Sp

This is an advanced video production course focusing on documentary & narrative video production. Students will learn advanced camera movement, colorization, overcranking & other techniques used to communicate an idea.. Prerequisite: MART 221 or Permission of instructor.

#### MART 326. Multimedia Project Management (4); Alt, Sp, Odd

In this course students learn to be part of a creative team that learns to professionally interact with clients while managing exhibition content, information flow, budgets, & productions schedules. Students work to master the art of problem solving & troubleshooting in a semester long project that is part of the Program in Interactive Cultural Technology. May be repeated for credit. Prerequisites: Co-enrolled in MART 495 and permission instructor.

### MART 327. Web Production Workshop (4); Fa

This is a course in front-end, presentational web production. We will focus on markup language, CSS, some javascript, image optimization and layout We will discuss production for different platforms & browsers, address issues about mobile & small screen presentation, CMS systems, & considerations of accessibility & user experience. This class is a combination of the technical skills of front end production, with the conceptual discussion of experience design & usability. Prerequisite: MART 233.

### MART 328. Principles of Game Design (4); Var

This course provides the basic theories and implementation of game design. Students will study structure, strategy and will work on developing their own games, digital or analog.

## MART 334-434. Practicum (1-4 VC); Fa, Sp, Su

A course to help students become leaders on multimedia projects.

## MART 350. Media Arts Seminar (4); Fa

An investigation of the core concepts & topics of media arts, specific to graphic design, photography, multimedia, & videography, through critical

readings, written papers, guest lecturers. The course will culminate in collaborative community-based projects. Prerequisite: MART 1221, MART 220 per Permission of Instructor.

#### MART 362. Video Effects (4); Var

The study of digital video post-production techniques including green screen techniques, video compositing, animation and scripting. Prerequisite: MART 221

### MART 363. Video Animation (4); Var

The study of animation for video including stop motion, rotoscoping, and coded methods of animating for video or the web. Both 2D and 3D will be discussed. Prerequisites: MART 221 Videography or permission of instructor.

## MART 366. Audio for Media Arts (4); Var

This course serves as an introduction to digital audio. Students will learn how to use solid-state recorders, microphones, and industry standard digital audio software. Working both alone and in groups, students will apply their audio skills to the realm of narrative storytelling and video production. Feedback will be provided in the form of individual and peer critiques. Prerequisite: MART 221 or Permission of Instructor.

### MART 367. Character Animation (4); Var

This course focuses on character animation. Students will develop their skills in 2D and clay animation by learning the concepts of storyboarding, character movement, walk cycles, facial expression, audio syncing, and camera angles.

## MART 373. Typography (4); Fa

In all fields of Visual Communication, the art of using, arranging, and designing with typography to communicate important worded & visual messages are of most important skills expected of an entry level professional. Upon entering most levels of the profession each of you will be expected to be very skilled in the nuanced art of choosing, organizing & arranging typographical elements in printed materials, video, film, internet, web & animation. Additionally, you will be expected to understand and apply issues related to type history, type selection, type families, type classification, type architecture, type rendering & type mechanics; serif, sans serif, kerning, leading, spacing, readability, legibility, alignment, hierarchy & type color.

## MART 412. History of Design (4); Alt, Fa, Odd

The history of design for BFA students seeking a professional career in any of the Media Arts; communication Design, Photography, Film, Systems Design, Art Direction, Creative Direction, Illustration or any other of the professional areas within Media Arts is critical to the understanding of the aesthetic, cultural, economic, political, religious, propaganda/ideological, marketing, technological & visual communication influences on art & design practices. The history of design represents the process of developing strong ideas that deliver important visual messages. Additionally, the Zeitgeist of the times that dramatically influenced all levels of visual communication; typography, color, layout, image development (illustration & photography) will be addressed. The history of design will encompass ancient influences starting with pictograms & petroglyphs but the major historical issues influencing contemporary design is the 150-year period of time from the mid nineteenth century after the civil war to the present & include people who were considered to be founders of the modern era of design.

### MART 413. Non-Linear Digital Video Editing (4); Var

The study of the history, theory & practice of video editing & directing in a non-linear environment. Prerequisite: MART 221 or Permission of Instructor.

#### MART 415. Design Projects for the Community (3); Var

This course focuses on the developing critical thinking skills for relating media content to context and for understanding how social and cultural issues impact public perceptions and behaviors. Through advocacy of a noncommercial cause, students will explore the many facets of an issue, identify key points to impact public appeal, develop a media promotional strategy, and employ visual communication skills to promote social change.

#### MART 436. Experimental Video Production (3); Var

In this course, students will explore approaches to experimental storytelling using advanced HD video. Students will learn the basic of project proposal writing, as well as how to secure funding and seek distribution for experimental projects. Prerequisites: MART 221 and 322 or permission of instructor.

# MART 438. Advanced Multimedia Project Management (3); Alt, Sp, Odd

The Program for Interactive Cultural Technology (PICT) is a full-semester, immersive academic, and hands-on program designed to prepare students for careers as multimedia professionals in museums, cultural organizations, and exhibition design businesses. PICT students help create a professional exhibition for an elite institution and participate in professional internships. Prerequisite: MART 318 and Corequisites: MART 326 and 495.

#### MART 446. Screenwriting (4); Fa

The study of the format, the writing styles, and the creative and technical techniques useful in the development of the dramatic screenplay for television and film.

### MART 447. Studio Lighting (4); Sp

Students will learn how to operate studio lighting equipment & techniques to execute professional photographic work both in the studio & in the field. Emphasis is placed on gaining technical skills, mastery of lighting techniques, & achieving the desired aesthetic effect to articulate a concept. Prerequisite: MART 121, 243 or Permission of Instructor.

## MART 449. Contemporary Photography 4 (4); Var

An introduction to computational photography and virtual tours. Prerequisites: MART121, 243, 447 or Permission of Instructor.

#### MART 456. Physical Computing (4); Sp

This course is an introduction to interaction beyond our usual screen-based focus, into the physical world. Using a programmable microcontroller, students will learn how to connect sensors & actuators to create devices, installations & environments that move interaction past the mouse, keyboard & screen. Prerequisite: MART 233 or co-enrollment.

#### MART 457. Surround & Installation Workshop (4); Variable

The course prepares students to create large scale interactive multimedia installations using audio, video & programming. Prerequisite: MART 121,220, 233,350 and MART 221, 318, 243 & 373 completed or concurrent.

### MART 459. Advanced Interactive Multimedia (3); Var

A course designed for students interested in advanced multimedia and web development. This course is designed to relate directly to current professional standards in multimedia, interaction and web production. Prerequisites: MART 318 and 327 or permission of instructor.

#### MART 460. Alternative Photography (4); Var

This class will explore the creative usages of wet darkroom & digital darkroom alternative photographic techniques with an emphasis on the way that a form of a piece furthers an overarching concept. Prerequisites: MART 121 and MART 243.

### MART 461. Advanced Design Practice (4); Fa

This course comprehensively explores the process of designing for print & digital multidimensional branding & advertising problems for corporate, institutional, non-profit, retail & other clients needing comprehensive brand development. Significant emphasis will be placed upon client research, client goals & history & information gathering, brand aspiration & development, corporate identity & advertising including; company mark/logo design, symbols, color branding, packaging, print, website development use of grids, complex & simple layouts, pagination, multi-page spreads, typography, visual & informational hierarchy with primary focus upon development of a brand style guide & student process notebook. Layout software will be used in the development of all design problems. Prerequisite: MART 121, 220, 373, 317

#### MART 464. Advanced Digital Cinema (3); Var

A capstone course in video production that requires the student to write, produce and direct a professional-quality video piece. Prerequisites: MART 436 or permission of instructor.

## MART 465. Advanced Media Projects (4); Sp

In this capstone course, graduation media arts students will create a final portfolio, resumes, personal statements, and create an online presence. BFA students will plan, execute and document a final show in preparation for graduation. Prerequisite: Media Arts BFA student or Permission of Instructor.

### MART 468. Advanced Lightwave Modeling (3); Var

The study of three-dimensional computer modeling techniques for virtual objects. Prerequisite: MART 363.

### MART 469. Advanced Video Animation (3); Variable

The study of advanced techniques of Lightwave animation, including the use of metanurbs, inverse kinematics, multiple-target morphing, and quasi-cel animation. Prerequisite: MART 363.

#### MART 470. Advanced Design Practice 2 (3); Sp

This class is an advanced design class and an advanced practice class, placing an emphasis on process, as well as client relations. The curriculum will focus on accurately targeting audiences for professional clients, with print, web, and interactive materials. We will learn how to most effectively position a unique brand on the market. Prerequisite: Permission of instructor.

#### MART 472. Distributed Network Production (4); Variable

The goal of this class is to explore emerging technologies & the implications & ethics of being media technology professionals in a rapidly evolving field. This class requires production work as well as readings, discussion, critical thinking, suspension of disbelief when necessary, and an internet in exploring the networked present & near future. Prerequisites: MART 121,220, 233, & 350 or Permission of Instructor.

### MART 475. Advanced Screenwriting Workshop (4); Fa

Students in Advanced Screenwriting will complete and revise a feature-length screenplay or documentary. Prerequisite: MART 446.

## MART 477. Typography II (3); Var

This course explores the area of kinetic typography, an industry standard media form commonly seen in broadcast television media and film. A basic understanding of typography should have already been explores, as students will use their knowledge of vector-based software as a springboard for effects software. Animation on track paths, light, and camera angles come into play. Conceptual studies of environment-specific design will also be assessed and studied. Prerequisite: MART 373.

## MART 490. Independent Study (1-4 VC); Fa, Sp, Su

Individual, directed study arranged with an instructor. Prerequisite: Permission of instructor.

#### MART 494. Cultural Technology Mentorship (1); Var

A course designed as a requirement for the AmeriCorps Technology Program. It is a one-credit course fulfilling objectives outlined in the AmeriCorps proposal and cannot be used to fulfill a degree requirement. This course is designed to help students develop leadership skills and complete the necessary training for an AmeriCorps placement. This class will focus on 8 topic areas designed to give AmeriCorps interns a competitive advantage as they transition from NMHU students to professionals in cultural technology. Prerequisite: Permission of instructor.

## MART 495. Exhibition Design (4); Alt, Sp, Odd

Students are introduced to successful exhibition design principles used in museums, art galleries, & cultural institutions. Projects include the research & design of a physical space including both static & interactive elements. Students learn to combine design, construction & multimedia skills to produce a final exhibit for the public. Prerequisite: Instructor permission & must be co-enrolled in MART 326.

#### MART 496. Advanced Exhibition Design (3); Alt, Sp, Odd

This course is for students who have already taken Exhibition Design. In this class, students will expand their understanding of designing in a physical space, static and interactive elements, and combining design, construction and multimedia skills to produce a final exhibit for the public. Prerequisites: MART 373 or 415 and MART 495.

#### MART 498. Professional Internship (1-6VC); Fa, Sp, Su

A student will work under the joint supervision of a work-supervisor and a faulty member either at an on or off campus site. Prerequisite: Permission of Instructor.

#### Software Systems Design (SSD), courses in

### SSD 331. Web Applications (3); Sp

This course will combine web technologies such as HTML5, CWSS3,PHO, Javascript, and more to create web-based applications for modern platforms. Prerequisite: SSD 352.

#### SSD 334. Practicum (1-4 VC); Fa

Work placement with specific responsibilities over a sustained period of time. Prerequisite: Permission of Instructor.

#### SSD 340. Programming & Logic (3); Alt, Fa, Even

Fundamental concepts in programming and logic. Prerequisite: Math 140,

#### SSD 341. Applied Algorithms & Architecture (3); Fa

This course provides the student with a basic mathematical tool kit for developing interactive & physical computing applications. We will study numbers & number systems, sets and list, logic systems and how computer architecture and mathematics interact. Prerequisite: Math 140.

### SSD 351. Web Languages (3); Var

Further exploration of Web Languages beyond the basics. Prerequisite: SSD 331.

#### SSD 352. JavaScript (3); Fa

The purpose of this course is to teach JavaScript basics and popular industry standard frameworks. Prerequisite: MATH 140.

### SSD 365. Patterns and Patterns Languages (3); Sp

This course introduces the design pattern solutions and best practices across previously learned languages. Prerequisites: SSD 340 & 352.

### SSD 370. Interfaces (3); Alt, Sp, Odd

Exploration of alternative human computer interfaces. Prerequisite: SSD 340.

### SSD 382. Agile Project Management (3); Alt, Sp, Odd

This course covers the production aspects of software development from an agile perspective. Story walls, burn-down and burn-up charts, test tracking, daily build processes, planning, and retrospective (process improvement) techniques and practices are covered.

## SSD 385. Data Modeling (3); Sp

This course introduces basics of data retrieval using database queries, and cloud service APIs. Prerequisite: SSD331.

### SSD 415. Game Development (3); Sp

This course teaches the basic concepts of game development for casual games. Topics include, character movement, physics, collision detection, attacking, and scoring. Prerequisite: SSD 420.

### SSD 420. Mobile Applications (3); Sp

This course will cover building a native application from start to finish for Apple's mobile devices using Objective-C in the Xcode environment. Topics covered include data presentation and handling and basic user interaction. Prerequisite: SSD 340.

### SSD 425. Advanced Mobile Applications (3); Fa

In this course, students will work on a large-scale native application for an

Apple iOS device. Advanced features, such as accelerometer support and geolocation, will be taught. Students will complete the project in phases mirroring professional production. Prerequisite: SSD 420

### SSD 430. Advanced Web Applications (3); Alt, Sp, Even

In this course, students work on a large scale web application combining various technologies from previous web courses. Advanced features include responsive design for use across all major platforms. Prerequisite: SSD 331.

#### SSD 434. Practicum II (1-4 VC); Sp

Work placement with specific responsibilities over a sustained period of time. Prerequisite: Permission of Instructor.

## SSD 435. Special Topics (VC); Var

This course provides an opportunity to respond to student interest and developing topics in the area of software development, including new domains, new tools, and new methods.

## SSD 447. Ambient Computing (3); Sp

This course is an exploration of the world of the "invisible" computer. The student will use embedded computers & sensors to learn & then create a robust device that interacts with a specific environment. The course will examine a variety of schemes & approaches to developing computer programs for processors that have no keyboard or screen. We will examine the state of ambient computing technologies & adaptive algorithms. This course compliments the Physical computing curriculum, but looks at processors that are more complex than the Arduino system. Prerequisite: SSD 341

## School of Education

Dr. Virginia Padilla-Vigil, interim Dean

Victoria D. de Sanchez Teacher Education Center, Room 114B 505 454-3357

E-mail: vpadillavigil@nmhu.edu

FAX: 505 454-3384

#### **Mission Statement**

The Highlands School of Education prepares teachers, counselors, and administrators for diverse and inclusive environments through excellence in teaching, research, and service.

## **Undergraduate Faculty**

Jerry Cronin, Ph.D. (Science/Mathematics)

Melani Buchanan-Farmer, Ph.D. (Bilingual/ESL)

Michael Immerman, Ph.D. (General and Secondary Education)

Taik Kim, Ph.D. (Math, Science and Social Studies Education)

Shirley Meckes, Ph.D. (Early Childhood Multicultural Education)

Michael Morad-McCoy, Ph.D. (Counseling)

Carolyn Newman, Ph.D. (Early Childhood Multicultural Education)

Seonsook Park. Ph.D. (Reading/TESOL)

P.J. Sedillo, Ph.D. (Special Education, Gifted Education)

Emily Williams, Ph.D. (Special Education)

Ann Wolf, Ph.D. (Reading)

Eva (Efstathia) Yerende, Ph.D. (Bilingual/ESL)

## Office of Field Experiences

Janis Taback-Keene, M.S., Ed.S. (Coordinator, Field Experiences at Rio Rancho)

#### Resources and Facilities

The Victoria D. de Sanchez Teaching Education Center (TEC) is a modern, three-level building housing classrooms, two interactive television rooms, smart classrooms, faculty offices and an instructional materials evaluation center.

The TEC building also serves as a home for the Northeast Regional Education Cooperative, the Center for the Education & Study of Diverse Populations, Advanced Placement-New Mexico, the Highlands Counselor Training Center and MESA-Northern New Mexico.

Established by the School of Education, the Center for the Education and Study of Diverse Populations studies diverse populations whose needs are unmet and who encounter barriers to services and opportunities, and develops strategies for removing those barriers.

The School of Education houses a regional Instructional Materials Evaluation Center that contains publisher-supplied samples of state-approved texts and materials for review by school district administrators, teachers, parents, and education faculty and students. The center also functions as an institutional curriculum library, providing selected samples of resources for short-term loan.

The Literacy Council of Northeastern New Mexico staffs an adult literacy center and provides services within the Instructional Materials Evaluation Center.

Finally, the School of Education offers selected undergraduate and graduate programs at the Centers in Santa Fe / Española, Rio Rancho and Farmington with the cooperation of the Educational Outreach Services Program.

Purpose of the School of Education

The purpose of the School of Education is to provide highly qualified, entry-level teachers in early childhood, elementary, secondary, special education, and other professional personnel such as, educational leaders and counselors, to serve New Mexico and/or national PK-grade 12 school districts.

The School of Education offers selected undergraduate and graduate programs at the Centers in Santa Fe, Rio Rancho and Farmington with the cooperation of the Educational Outreach Services Program.

#### **Conceptual Framework**

The School of Education believes in democratic access to an education, both theoretical and authentic, that allows the reflective learner to continue to develop cultural schemas and diverse cognitive processing skills to construct a knowledge base, practice the skills and develop professional dispositions in authentic settings needed to excel in education, leadership, counseling or other self-determined endeavors.

#### **Themes**

There are eight themes that guide the School of Education's practices and decision-making processes:

- Diversity
- Reflective Practitioner
- Cultural Inclusion
- Authentic Settings
- Practice
- Knowledge
- Professionalism
- Leadership

## **Teacher Preparation and Licensure Programs**

Entrance to undergraduate teacher preparation programs is evaluated through advisement and assessment of students' skills and motivation for entering the teaching profession. Preparation for the profession requires an academic course of study through majors in early childhood, elementary, special education, or a minor in secondary education together with a major in an appropriate content field.

Candidates plan their academic programs in careful consideration of the subjects or grade levels they may wish to teach. Education students receive support and guidance from faculty advisers throughout the period of their studies and also in seeking their first jobs.

## **Initial Licensure Programs**

Initial programs leading to a Bachelor of Arts degree and making candidates eligible for a New Mexico teaching license include early childhood education, elementary education, special education, and secondary education, a program minor which must be combined with a content-area major.

The following describe three gateways that assess and guide students through the School of Education and teacher licensure. This process will initiate an in-school file for students as they matriculate in the School of Education.

Gateway Alpha (Program Entry into the School of Education)

Key assessments determine candidate eligibility for admission to the School of Education initial licensure programs. Those assessments and their criteria are:

National Evaluation Series Essential Academic Skills (Subtests, I, II, III) score of at least 220;

Overall GPA of at least 2.50 (based on a minimum of 24 credit hours);

A C-grade or better in GNED 201 (Introduction to Teaching), GNED 251 (Field Base I) SPED 214 (Introduction to Special Education), or ECME 300:

A score of at least 3 out of 4 on a designated writing assignment in GNED 201 or ECME 300;

A C-grade or better in English 112 (Composition); and

An application to the School of Education on the Chalk and Wire software.

Gateway Beta (Admission to Clinical Practice: Student Teaching)

Key assessments determine candidate eligibility for admission to clinical practice / student teaching (Field Base III). Those assessments and their criteria are:

National Evaluation Series Elementary Content Knowledge score of at least 220, Special Education Content Knowledge, Secondary Major Content Knowledge;

National Evaluation Series (NES) Essential Components of Reading- Elementary Education majors only;

Overall GPA of at least 2.75;

All major course requirements;

All teacher licensure requirements;

Criminal records background check and finger prints;

Submit verification of liability insurance;

Submit application for student teaching on Chalk and Wire

Gateway Gamma (Program Completion)

Key assessments determine candidate eligibility to become a program completer. Those assessments and their criteria are:

Successful development of a student teaching portfolio during Field III Student Teaching experience;

Field Base III university supervisor rating of at least three of four points possible by the final classroom observation;

Field Base III rating by cooperating teacher of at least three of four points possible by the final classroom observation; and

Field Base III dispositions rating of at least three of four points possible.

#### **Chalk and Wire**

The School of Education has adopted the electronic assessment system, Chalk and Wire, as a platform to create candidate electronic portfolios. Chalk and Wire is required of all School of Education candidates and of those who seek admission. Chalk and Wire tracks candidates' progress as they address the competencies of their licensure areas. It is used as a vehicle to assess programmatic strength, weaknesses and areas in need of modification. As candidates continue to meet these competencies and professional standards the quality of teaching, counseling and administration will continue to improve in northern New Mexico and wherever our candidates decide to practice their chosen profession.

# Requirements for Admission to Teacher Preparation and Licensure Programs

Admission to the School of Education is a separate and independent process from admission to the university. Candidates need to purchase a Chalk and Wire license through the university bookstore. All applications for admission into the School of Education are only accepted through Chalk and Wire. Candidates must complete all requirements listed in Gateway Alpha before they are admitted. If a candidate is deficient in any one of the Gateway Alpha requirements, admission will be denied, until all requirements are met. Students should contact the School of Education early in their freshman year to receive guidance in the process. Early advisement is essential to avoid delays in meeting all requirements. Consultation with an education adviser is essential to establish a program of courses. An overall grade point average of at least 2.5 is required.

1. Complete the following courses with a grade of C or better:

GNED 201 Introduction to Teaching (3)

GNED 251 Field-Base 1 Teacher Prep Experience (1)

SPED 214 Introduction to Special Education (3)

ECME 300 Professionalism (2) (ECME students only)

Complete and submit an application through Chalk and Wire for admission into the School of Education.

Complete the appropriate freshman and sophomore courses in the university's core curriculum together with additional extended core courses required for education majors and minors by the New Mexico Public Education Department. The choices to be made will reflect the requirements for licensing that have been set by the New Mexico Public Education Department (NMPED) and SB329 as of July 1, 2016. These courses include:

9 hours in communication

8 hours in science

12 hours in history

9 hours in humanities and fine arts

9 hours in social/behavioral science

6 -9 hours in mathematics\*

Extended Core/ NMHU requirements

2 hours PE

8 hours modern language

3 hours computer science

54-57 hours of core requirements

- \* ECME and elementary education majors need nine hours; special education majors and secondary education minors need six hours.
- 3. Take the New Mexico Teacher Assessment (NMTA) exams to be eligible for student teaching.

Students must have passed the Basic Skills and Content Knowledge exams of the NMTA to be approved for student teaching. Students must pass the Assessment of Teacher Competency Exam of the NMTA in the areas of early childhood, elementary, or secondary education to receive NMPED licensure. Students have no more than two opportunities to complete successfully any of the field-based experiences. With the submission of the School of Education application, the candidate must have established an electronic portfolio, completed the disclosure form via Chalk and Wire, submitted disposition assessments from designated classes and field-based experiences, and appropriate artifacts from GNED 201 and ECME 300. Students will also be asked to submit other artifacts from other education classes. Details of this process and the required minimum scores are available from the School of Education.

Students seeking a bilingual endorsement are required to pass the Prueba de Español para la Certifición Bilingües exam. Students must maintain close communication with Academic Support Services and the School of Education regarding these important examinations.

Requirements for Admission to Clinical Practice and for Placement in Student Teaching (Field-Base III Teacher Preparation or Internship in Teaching)

Students must submit, through their adviser, a formal application for admission to the Office of Field Experiences. The application form is available on Chalk and Wire. Adverse decisions concerning admittance can be appealed first to the program's admission committee and then to the school dean.

For admission to clinical practice, a 2.75 overall grade point average is required. Students must complete a degree audit with the Office of the Registrar and meet periodically with their education advisers for a check on their advancement through the Gateways, academic progress, and verification of successful completion of the appropriate sections of the NMTA exam. Prospective candidates should discuss this requirement with their education advisers.

Candidates for placement in student teaching will file a formal application on Chalk and Wire prior to midterm of the preceding semester before they can be considered to begin student teaching.

Prerequisites for advancement to student teaching (Field-Based III) are:

A 2.75 overall grade point average;

Required major courses, up to those for the final semester (SB329, effective July 1, 2016);

Secondary education minors: 24 credits in the academic major and 20 credits in the academic minor (if applicable), with an overall minimum GPA of 2.75;

A passing score on all required National Evaluation Systems Assessment of Academic Skills; and

The application for Student Teaching on Chalk and Wire, with these additional requirements:

A degree audit signed by the program advisers; and

Appropriate reference letters with documented dispositions.

Each teaching discipline's program committee and the director of student teaching will review the applications for approval, and those students whose applications are denied may appeal to the Office of the Dean.

Student teaching is a full-time assignment during the period of the placement and requires the candidate to participate fully in the life and work of the school. The student teacher follows the daily schedule of the school, assumes regular faculty and out-of-classroom duties, and participates in faculty meetings, PTA/PTO meetings, school plays, and other school-related activities as appropriate. Because this constitutes a full-time commitment, no additional coursework may be taken without special permission from the field-base coordinator. In all cases, the school's cooperating teacher and principal, in consultation with the university supervisor, make the determination of the student teacher's involvement, duties, and course loads.

Final placement of a student teacher in a school is decided by the School of Education and is contingent upon the student being accepted by the school.

To receive a degree in education, the student must submit summative supervisor and cooperating teacher ratings that indicate the Interstate New Teacher Assessment and Support Consortium (INTASC) standards have been met, submit the student teaching electronic portfolio, and designated class and field disposition assessments.

#### **Education**

## Major in Early Childhood Multicultural Education (AA)

## Required courses: 29 credit hours

ECME 300 Professionalism (2)

ECME 301 Health, Safety & Nutrition (2)

ECME 302 Child Growth, Development & Learning (3)

ECME 303 Family & Community Collaboration I (3)

ECME 304 Curriculum Development through Play-Birth through Age 4 (3)

ECME 305 Guiding Young Children (3)

ECME 306 Curriculum Development & Implementation (Age 3 through Grade 3) (3)

ECME 315 Introduction to Reading & Literacy Development (3)

ECME 328 Assessment of Children & Evaluation of Programs I (3)

ECME 332 Curriculum Development through Play-Birth through Age 4 Practicum (2)

ECME 334 Curriculum Development & Implementation Practicum-

Age 3 through Grade 3 (2) Major Total: 29 credit hours Core Total: 35 credit hours Extended Core: 5 credit hours Total for Degree: 69 credit hours\*

\*Total units for the degree may exceed 69 credit hours if proficiency courses are required. The University requires a minimum of 69 credit hours for this degree.

## Major in Early Childhood Multicultural Education (BA): Age 3 to Grade 3

The early childhood multicultural education program is a four-year, or 67-hour, Bachelor of Arts degree. The program prepares classroom teachers and other professionals to work with children from Age 3 to Grade 3. The program fulfills the NMPED competency requirements which include child growth, development and learning; developmentally appropriate content;

learning environments and curriculum implementation; and health, safety and nutrition assessment and professionalism. The program meets the state requirements of teacher certification/licensure for teaching PK to grade 3 in the public schools and the early childhood special education, or developmentally delayed, preschool classroom. Students majoring in early childhood education are not required to take a minor.

#### Professional Education: 68 credit hours

ECME 300 Professionalism (2)

ECME 301 Health, Safety & Nutrition (2)

ECME 302 Child Growth, Development and Learning (3)

ECME 303 Family & Community Collaboration (3)

ECME 304 Curriculum Development Implementation: Birth – Age 4

ECME 305 Guiding Young Children (3)

ECME 306 Curriculum Development & Implementation: Age 3 – Grade 3 (3)

ECME 315 Introduction to Language, Literacy & Reading (3)

ECME 328 Assessment of Children & Evaluation of Programs 1 (3)

ECME 403 Family, Language & Culture (3)

ECME 411 Teaching & Learning Reading & Writing (3)

ECME 413 Teaching & Learning Math & Science (4)

ECME 414 Teaching & Learning Social Studies (3)

ECME 420 Research in Child Growth, Development & Learning (3)

ECME 428 Assessment of Children & Evaluation of Programs 2 (3)

ECME 482 Young Children with Diverse Abilities (3)

RDED Reading Elective Credits (3)

GNED 445 Knowledge of the Profession (3)

Field Experience and Practicums: 15 credit hours

ECME 332 Practicum Curriculum Develop & Play: Birth - Age 4 (2)

ECME 334 Practicum Curriculum Develop & Play: Age 3 - Grade 3 (2)

ECME 415 Teaching & Learning Practicum (2)

ECME 452 Early Childhood Education Student Teaching (9)

Major Total: 68 credit hours

Education Required Core: 57credit hours

Degree Total: 125 hours

This major does not require a minor. The degree total may be exceeded if proficiency courses are needed.

In addition to the above requirements, students must have passed the National Evaluation Systems (NES) Assessment of Academic Skills to be approved for student teaching. Licensing for early childhood education teaching in the State of New Mexico requires passing the National Evaluations Systems (NES) Assessment of Academic Skills and the New Mexico Teacher Assessment (NMTA) Teacher Competency in Early Childhood Education examination.

## Major in Early Childhood Multicultural Education- Birth to Age 4

The early childhood multicultural education program is a four-year, or 62-hour, Bachelor of Arts degree. The program prepares classroom teachers and other professionals to work with children from Birth to Age 4. The program fulfills the NMPED competency requirements which include child growth, development and learning; developmentally appropriate content; learning environments and curriculum implementation; and health, safety and nutrition assessment and professionalism. The program meets the state requirements of teacher certification/licensure for teaching Birth to Age 4 in the public schools Pre-K and the early childhood special education, or developmentally delayed, preschool classroom, and home visitation programs. Students majoring in early childhood education are not required to take a minor.

### Professional Education: 63 credit hours

ECME 300 Professionalism (2)

ECME 301 Health, Safety & Nutrition (2)

ECME 302 Child Growth, Development and Learning (3)

ECME 303 Family & Community Collaboration (3)

ECME 304 Curriculum Development Implementation: Birth – Age 4

ECME 305 Guiding Young Children (3)

ECME 306 Curriculum Development & Implementation: Age 3 – Grade 3 (3)

ECME 315 Introduction to Language, Literacy & Reading (3)

ECME 328 Assessment of Children & Evaluation of Programs 1 (3)

ECME 403 Family, Language & Culture (3)

ECME 417 Emergent Literacy (3)

ECME 420 Research in Child Growth, Development & Learning (3)

ECME 424 Integrated Curriculum: Birth – Age 4 (4)

ECME 431 Advanced Caregiving for Infants & Toddlers (3)

ECME 482 Young Children of Diverse Abilities (3)

GNED 445 Knowledge of the Profession (3)

Field Experience and Practicums: 15 credit hours

ECME 332 Practicum Curriculum Develop & Play: Birth – Age 4 (2)

ECME 334 Practicum Curriculum Develop & Play: Age 3 – Grade 3 (2)

ECME 425 Integrated Curriculum Practicum (2)

ECME 452 Early Childhood Education Student Teaching (9)

#### **Elective Credits: 1 hour**

Major Total: 63 credit hours

**Education Required Core: 57 credit hours** 

Degree Total: 120 hours

This major does not require a minor. The degree total may be exceeded if proficiency courses are needed.

# Major in Early Childhood Multicultural Education- Birth to Age 4 Non-Licensure

The early childhood multicultural education program has a four-year, or 62-hour, Bachelor of Arts degree. The program prepares classroom teachers and other professionals to work with children from Birth to Age 4. The program fulfills the NMPED competency requirements which include child growth, development and learning; developmentally appropriate content; learning environments and curriculum implementation; and health, safety and nutrition assessment and professionalism. Students majoring in early childhood education are not required to take a minor.

#### Professional Education: 63 credit hours

ECME 300 Professionalism (2)

ECME 301 Health, Safety & Nutrition (2)

ECME 302 Child Growth, Development and Learning (3)

ECME 303 Family & Community Collaboration (3)

ECME 304 Curriculum Development Implementation: Birth – Age 4 (3)

ECME 305 Guiding Young Children (3)

ECME 306 Curriculum Development & Implementation: Age 3 – Grade 3 (3)

ECME 315 Introduction to Language, Literacy & Reading (3)

ECME 328 Assessment of Children & Evaluation of Programs 1 (3)

ECME 403 Family, Language & Culture (3)

ECME 417 Emergent Literacy (3)

ECME 420 Research in Child Growth, Development & Learning (3)

ECME 424 Integrated Curriculum: Birth – Age 4 (4)

ECME 431 Advanced Caregiving for Infants & Toddlers (3)

ECME 482 Young Children of Diverse Abilities (3)

## Elective Credits (13)

#### Field Experience and Practicums: 15 credit hours

ECME 332 Practicum Curriculum Develop & Play: Birth – Age 4 (2)

ECME 334 Practicum Curriculum Develop & Play: Age 3 - Grade 3 (2)

ECME 425 Integrated Curriculum Practicum (2)

Major Total: 63 credit hours

Education Required Core: 57 credit hours

Degree Total: 120

This major does not require a minor. The degree total may be exceeded if proficiency courses are needed.

# General Science Degrees for Secondary School Teachers:

### Major in General Science for Secondary School Teachers (Grades 7 - 12)

The purpose of the major is to provide science teachers in training with a fundamentally strong background in the basic sciences. Therefore, a greater pool of talent in the field of science education will be created from which surrounding middle schools and high schools can draw. The program has been designed to emphasize the fundamental understanding of both physical and life sciences. Courses will be selected from biology, geology, chemistry, computer science, and physics. The objectives of the general science major are to:

- Provide science teachers in training with a multidisciplinary program that will adequately prepare them to teach the science courses expected in middle school and high school science programs.
- 2) Prepare science teachers to develop each of the competencies required by the State Board of Education for licensure in science education

Students must complete the NMHU Core Curriculum requirements, which should include a minimum of Math 140 and eight credits from the lab sciences listed below. Math 211 and Math 160 are required for the BS rather than a BA degree. The BS degree is recommended for students preparing to teach high school.

### Required core: 49 credit hours

BIOL 211 General Biology 1 (4)

BIOL 212 General Biology 2 (4)

CHEM 211 General Chemistry 1 (3)

CHEM 212 General Chemistry 2 (3)

CHEM 215 General Chemistry Lab 1 (2)

CHEM 216 General Chemistry Lab 2 (2) CS 144 Introduction to Computer Science (3)

GEOL 101 Survey of Earth Science (4)

GEOL 202 Earth Histories (4)

BIOL 420 Teaching Science & Math in Secondary School (3)

### Choose one set from the following:

PHYS 151 Algebra Physics 1 (4)

PHYS 152 Algebra Physics 2 (4)

OR

PHYS 291 Calculus Physics 1 (5)

PHYS 292 Calculus Physics 2 (5)

### Choose one of the following:

BIOL 359 Fundamentals of Lab Safety (1)

CHEM 359 Fundamentals of Lab Safety (1)

Total Core: 43 credit hours Electives: 16 credit hours

With the advice of a science adviser, select at least one course from each of biology, chemistry and geology for a minimum of 16 credits above the 300 level. In addition the student must undertake a minor in secondary education. Students must fulfill requirements for entrance to teacher preparation and licensure. Please refer to the School of Education for details.

#### Major Total: 59 credit hours

## Minor in General Science for Elementary School Teachers (Grades K - 5)

The purpose of the minor is to provide elementary school teachers in training with a strong background in a variety of concepts in life science, physical science, and earth and space science. Students should consult with an adviser early in their academic career to select the appropriate courses and avoid

possible problems with prerequisites or scheduling. Not all of the 300- or 400- level classes are offered every semester or even every year. The objectives of the general science minor are to:

- Provide pre-service elementary teachers with a program that will adequately prepare and encourage them to teach the most fundamental science concepts to students at the elementary school level.
- Broaden the scope of science to elementary school teachers in training, so they will be well versed in all aspects of science allowing them to develop methods in which to relay the content material to their students so that the students can fully understand the concepts. This minor does not satisfy the Secondary School endorsement requirements (grades 7-12) for the State of New Mexico.

#### Minor in Early Childhood Multicultural Education

Early childhood multicultural education offers an undergraduate minor field that may be selected by students majoring in elementary education, special education or other related fields. Early childhood multicultural education is a valuable specialization field for those intending to work with newborns to 8-year-old children. Additional courses beyond the minor in early childhood multicultural education are required for a teaching license.

Required courses: 29 credit hours

ECME 300 Professionalism (2)

ECME 301 Health, Safety & Nutrition (2)

ECME 302 Child Growth, Development and Learning (3)

ECME 303 Family & Community Collaboration I (3)

ECME 304 Curriculum Dev Play: Birth - Age 4 (3)

ECME 305 Guiding Young Children (3)

ECME 306 Curriculum Dev Implementation: Age 3 - Grade 3 (3)

ECME 315 Introduction to Language, Literacy and Reading (3)

ECME 328 Assessment of Children & Evaluation of Programs I (3)

ECME 332 Practicum Dev Play: Birth - Age 4 (2)

ECME 334 Practicum Curriculum Dev: Age 3 - Grade 3 (2)

Minor Total: 29 credit hours

## Major in Math and Computer Science for Secondary School Teachers

This major requires a core of courses from mathematics and computer science. Graduates of the program will be equipped to teach both mathematics and computer science in secondary schools. The purpose of the major is to provide secondary school teachers in training with a fundamentally strong background in mathematics and computer science. This will create a greater pool of talent in math and computer science education from which middle and high school teachers can be drawn. The program has been designed to emphasize the fundamental understanding of both mathematics and computer science.

### The objectives of the math and computer science major are to:

Provide secondary teachers in training a program that will adequately prepare and encourage them to teach the expected mathematics and computing courses to students in middle and high school math and computer science programs.

Train math teachers to develop each of the competencies required by the State Board of Education for licensure in math education.

Broaden the scope of mathematics and computing to secondary school teachers in training, allowing them to develop methods in which to relay the content material to their students so that the students can fully understand what is being taught.

Provide secondary teachers in training with the background so they can assume responsibility for managing the computing facilities at their school.

### Prerequisite courses: 8 credit hours

MATH 140 College Algebra  $(3^*)$ 

MATH 160 Precalculus (5)

\*Applies to university proficiency requirement.

# Minor in Math and Computer Science for Elementary School Teachers (Grades K-8)

The purpose of this minor is to provide elementary school teachers in training with a fundamentally strong background in mathematics and computer science. The objectives of the math and computer science minor are to:

Provide elementary teachers in training a program that will adequately prepare and encourage them to teach the fundamental concepts of mathematics and computing to students at the elementary level.

Broaden the scope of mathematics and computing to elementary school teachers in training, allowing them to develop methods in which to relay the content material to their students so that the students can fully understand what is being taught.

Provide elementary teachers in training with the background so they can assume responsibility for managing the computing facilities at their school.

### Prerequisites: 9 credit hours

MATH 115 Math for Elementary Teachers 1 (3)

MATH 130 Math for Elementary Teachers 2 (3)

CS 101 Living with Computers (3)

### Required courses: 17 credit hours

MATH 140 College Algebra (3)

160 Precalculus (5)

CS 144 Introduction to Computer Science (3)

CS 145 Introduction to Object-Oriented Programming (3)

CS 245 Advanced Computer Programming (3)

#### Electives: 12 credit hours

#### Choose two courses from the following:

MATH 317 Discrete Math (3)

MATH 345 Math Statistics 1 (3)

MATH 406 College Geometry (3)

Any 300- or 400-level math course approved by adviser

### Choose three courses from the following:

CS 325 Computer Hardware Install & Maintenance (1)

CS 326 Computer Software Installation (1)

CS 327 Hands-on UNIX (1)

CS 332 Advanced Internet (1)

Any 300- or 400-level computer science course approved by adviser

## Choose one course from the following:

CS 456 Internet Services (3)

CS 457 Computer Networks (3)

CS 463 Web Programming (3)

# Minor Total: 27 credit hours Major in Elementary Education (BA)

Elementary education is offered as an academic major field. Education students may select a major in education or a dual major in elementary and special education. The major program meets requirements for special education licensure set by the NMPED. Elementary education majors study such topics as cognitive, physical, emotional, and social development; human relations; instructional planning and implementation, and classroom management, assessment and evaluation. Students also receive training in skills and competencies for elementary subject matter in mathematics, reading and language arts, social studies, science, and other foundational fields. The program complies with the instructional competencies established by the NMPED for entry-level elementary teachers. Before registering for the required major courses, students must complete the requirements for entrance to the Teacher Preparation Program which include GNED 201, taken in conjunction with GNED 251, and SPED 214. Students must have passed the National Evaluation Systems (NES) Assessment of Basic Skills, and the NES Elementary Content Exam, to be approved for student teaching. The NES Essential Components of Elementary Reading and the NES Teacher Competency- Elementary exams are required for New Mexico Teacher Licensure.

Students may select to major in elementary education.

The following requirements must be completed with a grade of C or better for entrance to the Teacher Preparation Program.

#### Prerequisites:

GNED 201 Introduction to Teaching (3)

SPED 214 Introduction to Special Education (3)

Required credits: 36 credit hours

RDED 315 Early Literacy (3)

RDED 411 Teaching/Diagnosis of Reading (3)

ELEM 312 Teaching Elementary School Math (3)

ELEM 317 Multicultural Education (3)

GNED 461 Assessment and Evaluation of Students (3)

GNED 417 Teaching English as Second Language (3)

ELEM 442 Teaching Elementary School Science & Social Studies (3)

ELEM 451 Field-Base III Teacher Prep Experience: Elementary (6)

GNED 251 Field-Base 1 Teacher Prep Experience (1)

GNED 351 Field-Base 11 Teacher Prep Experience (2)

GNED 444 Technology in Education (3)

GNED 445 Knowledge of the Profession (3)\*

\*GNED 445 must be taken in conjunction with ELEM 451.

Major Total: 36 credit hours

Prerequisites for Program Entry: 6 credit hours

**Education Required Core: 57 credit hours** 

Minor/2nd Major/Electives to 120: 21+ credit hours

Degree Total: 120

This major requires a minor, second major or completion of an associate's degree. The degree total may be exceeded if proficiency courses are needed, or by the credit hour requirements of a minor or second major.

# Minor in Bilingual Education/TESOL (Teaching of English to Speakers of Other Languages)

The minor in bilingual education/TESOL offers an undergraduate preparation to instruct pupils bilingually so as to improve their ability to succeed in the public schools. Spanish 111, 112, 211, (or 101, 102, 201) and Spanish 325 are prerequisites for Spanish 433, 441, and GNED 437. Students can consult the faculty in the Languages and Culture Department for a test-out option of lower-division courses. Courses listed above do not reflect the sequence in which they should be taken.

### Required credits: 24 credit hours

ANTH 461 Communication & Culture (3)

OR

ENGL 443 Sociolinguistics (3)

GNED 417 Teaching English as a Second Language (3)

RDED 416 Teaching Reading & Language Arts in the Bilingual Classroom  $(3)^*$ 

GNED 412 Theories & Principles of Bilingual Education (3)

GNED 437 Instructional Methods for Use in Span-Bilingual Classroom (3)\*

SPAN 300 Advanced Grammar (3)\*

SPAN 433 Civilization & Culture of New Mexico & the Southwest (3)\*

SPAN 441 Spanish for the Bilingual Classroom (3)\*

\*Prerequisites: SPAN 111, 112, 211, 212 (or 101, 102, 201, 202); Corequisite: SPAN 300

Minor Total: 24 credit hours

#### Minor in English as a Second Language (ESL)

The ESL program meets the requirements of the NMPED for an endorsement in English as a second language. The program includes courses offered in the departments of education, English, and anthropology.

### Required credits 21 credit hours

Prerequisite/Corequisite: Minimum of two semesters of a second language or demonstrated proficiency

ENGL 317 Introduction to Modern Grammar (3)

GNED 320 Language Acquisition & Ling for Teachers (3)

GNED 412 Theories & Principles of Bilingual Education (3)

ENGL 443 Sociolinguistics (3)

OR

ANTH 461 Communication and Culture (3)

GNED 417 Teaching English as a Second Language (3)

GNED 420 Sheltered English for Content Area Instruction (3)

RDED 315 Early Literacy (3)

OR

RDED 427 Reading in the Content Area (3)

Minor Totals: 21 credit hours

### **Minor in Secondary Education**

### (Teacher Preparation in Secondary Education)

Students who are preparing to become secondary-level teachers must complete a major from the many academic fields offered at the university; some will also select a content-area minor field. (See College of Arts and Sciences section for information.)

In addition, students must undertake a secondary education minor in the university's School of Education to prepare them for their chosen profession. The combination of courses in the university's major field and in the general education curriculum provides the necessary subject-matter competencies for secondary teaching. This is best done through early advisement from the School of Education.

Licensing for secondary teaching in the state of New Mexico requires the following: completion of an appropriate academic major in a content field(s) completion of the general education core (54 credit hours). Secondary education minors may add a content-field minor as well. The adviser may assist the student in selecting the content field(s). Students must complete requirements for entrance to the School of Education which include GNED201, GNED251, and SPED214 with a minimum grade of C and pass the National Evaluation Systems (NES) Assessment of Academic Skills. Students must pass the NES Content major exam or exams to be admitted to Field III Student Teaching. The NES Teacher Competency –Secondary exam must be passed for New Mexico Teacher Licensure.

GNED 201 Introduction to Teaching (3)

SPED 214 Introduction to Special Education (3)

#### Required courses: 28 credit hours

GNED 251 Field-Base I Teacher Preparation Experience (1)

GNED 302 Educational Psychology (3)

RDED 427 Reading in the Content Area (3)

GNED 351 Field-Base II Teacher Preparation Experience (2)

GNED 410 Art & Science of Teaching in Secondary Schools (3)

GNED 444 Technology in Education (3)

GNED 445 Knowledge of the Profession (3)\*

GNED 451 Field-Base III Teacher Preparation Experience- Secondary (6)

GNED 455 Classroom Management (3)

<sup>\*</sup> Taken in conjunction with GNED 451 as a Field Base III block.

Major 32+ hours Prerequisites: 6

Secondary Minor Total: 28 credit hours Core requirements: 54 credit hours Total: 120 credit hours minimum

#### Major in Special Education (BA)

Education students may select a major in special education or a dual major in elementary and special education. The major program meets requirements for special education licensure set by the New Mexico Public Education Department (NMPED.

Special education students receive instruction in using evidence-based teaching approaches for students with exceptionalities. Field-base experiences are integrated into the instructional program. Students must complete the requirements for entrance to the Teacher Preparation Program.

The following requirements must be completed with a grade of C or better for entrance to the Teacher Preparation Program:

GNED 201 Introduction to Teaching (3) or its equivalent

SPED 214 Introduction to Special Education (3)

## Required courses: 30 credit hours

GNED 251 Field Base I Teacher Prep Experience (1) or its equivalent

GNED 351 Field Base II Teacher Prep Experience (2) or its equivalent

GNED 444 Computer Applications in Education (3)

RDED 411 Teaching & Diagnosis of Reading (3)

SPED 401 Diagnosis of the Exceptional Child (3)

SPED 410 Curriculum & Methods for Students with Mild and Moderate Exceptionalities (3)

SPED 420 Curriculum & Methods for Students with Severe Exceptionalities (3)

SPED 430 Reading Instruct in Special Education (3)

SPED 451 Field Base III Teacher Prep Experience: Special Education (6) or its equivalent

SPED 455 Classroom Management (3)

\*SPED 455 is taken in conjunction with SPED 451 as Field Base III

Major Total: 36 credit hours

Prerequisites for Program Entry: 6 credit hours Education Required Core: 54 credit hours\* Minor/2nd Major/Electives: 30 credit hours Degree Total: 120\*\*\*

\*This major requires 6-credit hours of mathematics.

## **Minor in Special Education**

The minor in special education is available to students completing a teacher preparation (i.e. majoring in elementary education or minoring in secondary education). This minor satisfies university requirements. However, it does not satisfy New Mexico Public Education Department licensure requirements.

#### Prerequisite: 3 credit hours

SPED 214: Introduction to Special Education (3)

#### Required: 24 credit hours

SPED 2/434: Practicum in Special Education (1—6)

SPED 401: Diagnosis of the Exceptional Child (3)

SPED 410: Curriculum & Methods for Students with Mild and Moderate Exceptionalities (3)

SPED 420: Curriculum & Methods for Students with Severe Exceptionalities (3)

SPED 430: Reading Instruction in Special Education (3)

SPED 451 Field Base III Teacher Prep Experience: Special Education (6)

SPED 455: Classroom Management in Special Education (3)

Minor Total: 24 minimum credit hours

#### Minor in Gifted and Talented Education

The minor in gifted and talented education is available to students completing a teacher preparation (i.e. majoring in elementary education or minoring in secondary education). This minor satisfies university requirements. However, it does not satisfy New Mexico Public Education Department licensure requirements.

SPED 412 Foundations of Gifted Education (3)

SPED 414 Instructional Strategies for Gifted Education (3)

SPED 416 Instructional Planning & Curriculum: Gifted Education (3)

SPED 418 Twice Exceptional & Gifted Student (3)

SPED 422 Learning Environment & Social Interaction: Gift Education (3)

SPED 424 Family of Children with Exceptional & Gifted (3)

SPED 426 Ethical Practices: Student w/Exception & Gifted (3)

SPED 428 Achievement Test: Children w/Exception & Gifted (3)

Minor Total: 24 minimum credit hours

### Dual Major in Elementary/Special Education (BA)

A dual major in elementary/special education is offered. Students complete all the courses required for elementary and special education majors. No minor is required.

The following requirements must be completed with a grade of C or better for entrance to the Teacher Preparation Program.

#### Prerequisites:

GNED 201 Introduction to Teaching (3)

SPED 214 Introduction to Special Education (3)

### Required credits: 58 credit hours

RDED 315 Early Literacy (3)

RDED 411 Teaching/Diagnosis of Reading (3)

ELEM 312 Teaching Elementary School Math (3)

ELEM 317 Multicultural Education (3)

ELEM 361 Assessment and Evaluation of Students (3)

ELEM 417 Teaching English as Second Language (3)

ELEM 442 Teaching Elementary School Science & Social Studies (3)

ELEM 451 Field-Base III Teacher Prep Experience: Elementary (6)

GNED 251 Field-Base 1 Teacher Prep Experience (1)

GNED 351 Field-Base 11 Teacher Prep Experience (2)

GNED 444 Computer Application in Education (3)

GNED 445 Knowledge of the Profession (3)\*

SPED 401 Diagnosis of the Exceptional Child (3)

SPED 410 Curriculum & Methods for Students with Mild and Moderate Exceptionalities (3)

SPED 420 Curriculum & Methods for Students with Severe Exceptionalities (3)

SPED 430 Reading Instruct in Special Education (3)

SPED 455 Classroom Management (3)

ELSP 452 Field Base III Teacher Prep Experience: Dual Major Elementary/Special Education (6)

Dual Major Total: 58

## Prerequisites (6)

# General Science Degrees for Secondary School Teachers:

## Major in General Science for Secondary School Teachers (Grades 7 - 12)

The purpose of the major is to provide science teachers in training with a fundamentally strong background in the basic sciences. Therefore, a greater pool of talent in the field of science education will be created from which surrounding middle schools and high schools can draw. The program has been designed to emphasize the fundamental understanding of both physical and life sciences. Courses will be selected from biology,

<sup>\*\*</sup>This major requires a minor, second major or completion of an associate degree. The degree total may be exceeded if proficiency courses are needed.

geology, chemistry, computer science, and physics. The objectives of the general science major are to:

- Provide science teachers in training with a multidisciplinary program that will adequately prepare them to teach the science courses expected in middle school and high school science programs.
- 2) Prepare science teachers to develop each of the competencies required by the State Board of Education for licensure in science education

Students must complete the NMHU Core Curriculum requirements, which should include a minimum of Math 140 and eight credits from the lab sciences listed below. Math 211 and Math 160 are required for the BS rather than a BA degree. The BS degree is recommended for students preparing to teach high school.

### Required core: 49 credit hours

BIOL 211 General Biology 1 (4)

BIOL 212 General Biology 2 (4)

CHEM 211 General Chemistry 1 (3)

CHEM 212 General Chemistry 2 (3)

CHEM 215 General Chemistry Lab 1 (2)

CHEM 216 General Chemistry Lab 2 (2)

CS 144 Introduction to Computer Science (3)

GEOL 101 Survey of Earth Science (4)

GEOL 202 Earth Histories (4)

BIOL 420 Teaching Science & Math in Secondary School (3)

#### Choose one set from the following:

PHYS 151 Algebra Physics 1 (4)

PHYS 152 Algebra Physics 2 (4)

OR

PHYS 291 Calculus Physics 1 (5)

PHYS 292 Calculus Physics 2 (5)

#### Choose one of the following:

BIOL 359 Fundamentals of Lab Safety (1)

CHEM 359 Fundamentals of Lab Safety (1)

Total Core: 43 credit hours

#### Electives: 16 credit hours

With the advice of a science adviser, select at least one course from each of biology, chemistry and geology for a minimum of 16 credits above the 300 level. In addition the student must undertake a minor in secondary education. Students must fulfill requirements for entrance to teacher preparation and licensure. Please refer to the School of Education for details.

## Major Total: 59 credit hours

## Minor in General Science for Elementary School Teachers (Grades K - 5)

The purpose of the minor is to provide elementary school teachers in training with a strong background in a variety of concepts in life science, physical science, and earth and space science. Students should consult with an adviser early in their academic career to select the appropriate courses and avoid possible problems with prerequisites or scheduling. Not all of the 300- or 400- level classes are offered every semester or even every year. The objectives of the general science minor are to:

- Provide pre-service elementary teachers with a program that will adequately prepare and encourage them to teach the most fundamental science concepts to students at the elementary school level.
- Broaden the scope of science to elementary school teachers in training, so they will be well versed in all aspects of science allowing them to develop methods in which to relay the content material to their students so that the students can fully understand the concepts. This minor does not satisfy the Secondary School endorsement requirements (grades 7-12) for the State of New Mexico.

## Major in Math and Computer Science for Secondary School Teachers (Grades 7-12)

This major requires a core of courses from mathematics and computer science. Graduates of the program will be equipped to teach both mathematics and computer science in secondary schools. The purpose of the major is to provide secondary school teachers in training with a fundamentally strong background in mathematics and computer science. This will create a greater pool of talent in math and computer science education from which middle and high school teachers can be drawn. The program has been designed to emphasize the fundamental understanding of both mathematics and computer science.

#### The objectives of the math and computer science major are to:

Provide secondary teachers in training a program that will adequately prepare and encourage them to teach the expected mathematics and computing courses to students in middle and high school math and computer science programs.

Train math teachers to develop each of the competencies required by the State Board of Education for licensure in math education.

Broaden the scope of mathematics and computing to secondary school teachers in training, allowing them to develop methods in which to relay the content material to their students so that the students can fully understand what is being taught.

Provide secondary teachers in training with the background so they can assume responsibility for managing the computing facilities at their school.

### Prerequisite courses: 8 credit hours

MATH 140 College Algebra (3\*)

MATH 160 Precalculus (5)

\*Applies to university proficiency requirement.

# Minor in Math and Computer Science for Elementary School Teachers (Grades K-8)

The purpose of this minor is to provide elementary school teachers in training with a fundamentally strong background in mathematics and computer science. The objectives of the math and computer science minor are to:

Provide elementary teachers in training a program that will adequately prepare and encourage them to teach the fundamental concepts of mathematics and computing to students at the elementary level.

Broaden the scope of mathematics and computing to elementary school teachers in training, allowing them to develop methods in which to relay the content material to their students so that the students can fully understand what is being taught.

Provide elementary teachers in training with the background so they can assume responsibility for managing the computing facilities at their school.

## Prerequisites: 9 credit hours

MATH 115 Math for Elementary Teachers 1 (3)

MATH 130 Math for Elementary Teachers 2 (3)

CS 101 Living with Computers (3)

## Required courses: 17 credit hours

MATH 140 College Algebra (3)

MATH 1160 Precalculus (5)

CS 144 Introduction to Computer Science (3)

CS 145 Introduction to Object-Oriented Programming (3)

CS 245 Advanced Computer Programming (3)

#### Electives: 12 credit hours

## Choose two courses from the following:

MATH 317 Discrete Math (3)

MATH 345 Math Statistics 1 (3)

MATH 406 College Geometry (3)

Any 300- or 400-level math course approved by adviser

### Choose three courses from the following:

CS 325 Computer Hardware Install & Maintenance (1)

CS 326 Computer Software Installation (1)

CS 327 Hands-on UNIX (1)

CS 332 Advanced Internet (1)

Any 300- or 400-level computer science course approved by adviser

#### Choose one course from the following:

CS 456 Internet Services (3)

CS 457 Computer Networks (3)

CS 463 Web Programming (3)

Minor Total: 27 credit hours

### Early Childhood Multicultural Education (ECME), Courses in

### ECME 300. Professionalism (2); Sp Odd

This course provides a broad-based orientation to the field of early care and education. Early childhood history, philosophy, ethics and advocacy are introduced. Basic principles of early childhood systems are explored. Multiple perspectives on early care and education are introduced. Professional responsibilities such as cultural responsiveness and reflective practices are examined. NM Common Core Course Number: ECED 2152.

## ECME 301. Health, Safety and Nutrition (2); Sp Odd

This course provides information related to standards and practices that promote children's physical and mental well-being, sound nutritional practices, and maintenance of safe learning environments. It includes information for developing sound health and safety management procedures for indoor and outdoor learning environments for young children. The course examines the many scheduling factors that are important for children's total development, healthy nutrition, physical activity, and rest. NM Common Core Course Number: ECED 301.

## ECME 302. Child Growth, Development and Learning (3); Fa Odd

This basic course in the growth, development, and learning of young children, pre-birth through age 8, provides students with the theoretical foundation for becoming competent early childhood professionals. The course includes knowledge of how young children grow, develop, and learn. Major theories of child development are integrated with all domains of development, including biological-physical, social, cultural, emotional, cognitive and language. The adult's role in supporting each child's growth, development and learning is emphasized.

## ECME 303. Family and Community Collaboration (3); Sp Odd

This beginning course examines the involvement of families and communities from diverse cultural and linguistic backgrounds in early childhood programs. Ways to establish collaborative relationships with families in early childhood settings is discussed. Families' goals and desires for their children will be supported through culturally responsive strategies.

# ECME 304. Curriculum Development through Play: Birth through Age 4 (Pre-K) (3); Alt, Sp, Even

This beginning curriculum course places play at the center of curriculum in developmentally appropriate early childhood programs. It addresses content that is relevant for children, birth through age 8, developmentally appropriate ways of integrating content into teaching and learning experiences. Information on adapting content areas to meet the needs of children with special needs and the development of IFSPs is included. Curriculum development in all areas, including literacy, numeracy, the arts, health, science, social skills, and adaptive learning for children, birth through age 4, is emphasized. Corequisite: ECME 332.

## ECME 305. Guiding Young Children (3); Alt, Sp, Even

This course explores various theories of child guidance and the practical application of each. It provides developmentally appropriate methods for guiding children and effective strategies and suggestions for facilitating positive social interactions. Strategies for preventing challenging behaviors through the use of environment, routines and schedules will be presented. Emphasis is placed on helping children become self-responsible, competent, independent, and cooperative learners, and including families as part of the guidance approach.

# ECME 306. Curriculum Development & Implementation: Age 3 (Pre-K) through Grade 3 (3); Alt, Fa, Even

This curriculum course focuses on developmentally appropriate curriculum content in early childhood programs, age 3 through third grade. Development and implementation of curriculum in all content areas, including literacy, numeracy, the arts, health and emotional wellness, science, motor and social skills, is emphasized. Information on adapting content areas to meet the needs of children with special needs and the development of IEPs is included

## ECME 315. Introduction to Language, Literacy and Reading (3); Alt, Fa, Odd

This course is designed to prepare early childhood professionals for promoting children's emergent literacy and reading development. Through a developmental approach, the course addresses ways in which early childhood professionals can foster young children's oral language development, phonemic awareness and literacy problem-solving skills, fluency, vocabulary, and comprehension. This course provides the foundation for early childhood professionals to become knowledgeable about literacy development in young children. Instructional approaches and theory-based, and research-based, strategies to support the emergent literacy and reading skills of native speakers and English language learners will be presented.

## ECME 328. Assessment of Children and Evaluation of Programs 1 (3); Alt, Fa, Even

This basic course familiarizes students with a variety of culturally appropriate assessment methods and instruments, including systematic observation of typically and nontypically developing children. The course addresses the development and use of formative and summative assessment and evaluation instruments to ensure comprehensive quality of the total environment for children, families, and the community. Students will develop skills for evaluating the assessment process and involving other teachers, professionals and families in the process.

# ECME 332. Practicum for Curriculum Development through Play: Birth through Age 4 (2); Alt, Sp, Even

This beginning practicum course is a corequisite with ECME 304. The field-based component of this course will provide experiences that address curriculum content that is relevant for children, birth through age 4, in developmentally and culturally sensitive ways of integrating content into teaching and learning experiences. Information on adapting content areas to meet the needs of children with special needs and the development of IFSPs is included. Curriculum development in all areas, including literacy, numeracy, the arts, health, science, social skills, and adaptive learning for children, birth through age 4, is emphasized. Corequisite: ECME 304.

# ECME 334. Curriculum Development & Implementation Practicum: Age 3 (Pre-K) through Grade 3 (2); Alt, Fa, Even

This beginning practicum course is a corequisite with ECME 306. The field-based component of this course will provide experiences that address developmentally appropriate curriculum content in early childhood programs, age 3 through third grade. Development and implementation of curriculum in all content areas, including literacy, numeracy, the arts, health and emotional wellness, science, motor and social skills is emphasized. Information on adapting content areas to meet the needs of children with special needs and the development of IEPs is included. Corequisite: ECME 306.

# ECME 335-435. Selected Topics in Early Childhood Multicultural Education (1-4 VC); Var

Course in topics in early childhood multicultural education. May be repeated with change of content.

### ECME 403. Family, Language and Culture (3); Su

This course analyzes the interrelationships between family, language, and culture as connected to children's development and learning. In this course, language is understood as a human activity and higher mental process which build on the children's families, community, and cultural background. Language conceived as human activity must be examined through an understanding of dialogue, because dialogue is a way of promoting positive relationships between home, school, and community partnerships. In the course of these collaborative partnerships, a vision for a better world and well-being for young children will emerge and concretize in a culturally and linguistically responsive pedagogy. Prerequisite: ECME 303.

### ECME 411. Teaching and Learning Reading and Writing (3); Sp

The foundation of this course is an understanding of the reading process including the relationship between reading, writing, listening, and speaking; individual needs and abilities in reading instruction; and how to organize classrooms and select materials to support literacy development. Concepts of phonemic awareness, phonics instruction, vocabulary development, fluency, and comprehension are integrated with the use of developmentally appropriate authentic techniques, language/literacy immersion, and multicultural children's literature. Prerequisite: ECME 315; corequisite: ECME 412.

#### ECME 413. Teaching and Learning Math and Science (4); Fa

The focus of this advanced-curriculum course is on the standards, principles, and practices in teaching mathematics and science to young children in preschool through grade three. An emphasis is placed on developing a content-rich integrated math and science curriculum that focuses on children's development and interests, includes appropriate content, processes, environment, and materials with an emphasis on problem solving as the major means of constructing basic concepts. Field experiences required.

# ECME 414. Teaching Reading and Learning Social Studies, Fine Arts and Movement (3); Fa

This course focuses on the aims, scope, and integration of methods of teaching social studies, fine arts, and movement across the curriculum. This course emphasizes an integrated approach to teach the "what and why" of social studies; assessing student learning; planning units, lessons, and activities; developing, effective instructional strategies; and acquiring knowledge of social studies content. Concepts of expressive art include the visual arts, music, movement, and drama. Prerequisite: AA in ECME or ECME 300-level courses.

## ECME 415. Teaching and Learning Practicum (2); Fa, Sp

The field practicum is a corequisite course with the following: Teaching and Learning Reading and Writing; Teaching and Learning Math and Science; Teaching and Learning Social Studies, Fine Arts, and Movement. The field-based component of this set of courses will provide experiences that address curriculum content and practice teaching that is relevant for children pre-K through grade 3 in developmentally and culturally sensitive ways. Prerequisite: AA in ECME or ECME 300-level courses.

#### ECME 417. Emergent Literacy (3); Alt, Sp, Odd

This advanced course prepares early childhood professionals to study literacy development, specifically oral language, writing and reading. This course focuses on children from birth through pre-K, including children with diverse abilities. Through a developmental approach, the courses addresses: 1) recent theory and research that translates into practical strategies, assessment materials, and preparation of literacy rich environments; 2) the sociocultural contexts in which children develop literacy; 3) culturally, linguistically, and developmentally appropriate literacy curricula; 4) processes used to determine the appropriateness of various literacy strategies; 5) assessment, evaluation, and accountability, and 6) literacy leadership. Prerequisite: ECME 315.

# ECME 420. Research in Child Growth, Development, and Learning (3); Fa

This advanced course in child growth, development, and learning builds upon the foundational material covered in the basic course in child growth, development, and learning. An integration of major theories of child development is provided by focusing on contemporary research in all aspects of development, including bio-ecological, social-affective, cognitive-learning, language-cultural, and methodological aspects of research in early childhood development and education. This course focuses on preparing early childhood professionals to use empirically based research to inform their teaching of young children as well as preparing teachers to be researchers in their own classrooms. Prerequisite: ECME 302.

# ECME 424. Integrated Curriculum: Birth through Age 4 (4); Alt, Fa, Odd

This advanced course focuses on developmentally appropriate content, learning environments, and curriculum implementation for children birth through age 4. The course emphasizes integration of content areas (the arts, literacy, math, health/emotional wellness, science, social studies, motor, and adaptive living skills) and the development of rich learning environments for infants, toddlers, and preschool children. Corequisite: 425.

# ECME 425. Integrated Curriculum Practicum: Birth through Age 4 (2); Alt, Fa, Odd

This practicum course follows the prerequisite course ECME 306 at the associate level. The field-based component of this course provides experiences that address curriculum content that is relevant for children birth through age 4 in developmentally and culturally sensitive ways of integrating content into teaching and learning experiences in natural environments and center-based programs. Information on adapting content areas to meet the needs of children with special needs and the development of IFSPs is included. Curriculum development in all areas, including literacy, numeracy, the arts, health, science, social skills, and adaptive learning for children, birth through age 4, is emphasized. Prerequisites: 300-level ECME courses. Corequisite: ECME 424.

# ECME 428. Assessment of Children and Evaluation of Programs 2 (3); Sp

This advanced course builds upon student understanding of the connections, among learning, teaching, and assessment, and strategies for evaluation programs. Assessment, identification, and monitoring of typical and atypical development in the cognitive, motor, affective, and social domains will be explored. Multiple and diverse assessment approaches, including responsiveness to cultural and linguistic differences, will be emphasized.

# ECME 431. Advanced Caregiving for Infants and Toddlers (3); Alt, Sp, Even

The advanced field-based course focuses students in defining and implementing developmentally appropriate elements of quality programming for infants and toddlers in safe, healthy, responsive, and caring environments. The experiences in the approved setting will emphasize strong, nurturing relationships, cultural competence, recognition of diverse learning needs and styles of every child, appropriate guidance techniques, and partnership with the families, cultures, and community represented. Students are assisted through the course in advancing their ability to observe, discuss, and implement elements of quality programming for infants and toddlers in the home, smallgroup, or whole-group situations.

# ECME 452. Field Base 3: Student Teaching Early Childhood Multicultural Education (9); Fa, Sp

The student teaching experience in early childhood education has two components: 1) placement and assigned tasks in an early childhood classroom with a mentor teacher and 2) a weekly seminar in which students review and reflect on their own teaching practice, make connections between theory and practice, study particular topics of interest, conduct self-evaluations, and contribute to group discussions. Corequisite: GNED 455.

### ECME 482. Young Children with Diverse Abilities (3); Su

This course builds on the broad knowledge gained in previous coursework. It provides a specific focus on educational policies, programs, practices, and services appropriate for infants, toddlers, preschoolers, and early primary children who exhibit delays and disabilities. The course provides a means

toward a deeper understanding and sensitivity to the needs and feelings of children with diverse abilities and their families. The foundations include research-based decision-making, developmentally and individually appropriate practices, a holistic view of young children and their families, cultural sensitivity and competence, and activity-based interventions. Legal requirements of educating the child with disabilities or other special needs will be identified. Cross-listed as SPED 482.

### ECME 490. Independent Study (1-4 VC); Var

Individual study arranged with an instructor. Prerequisite: Permission of instructor.

## Elementary Education (ELEM), Courses in

#### ELEM 312. Teaching Elementary School Mathematics (3); Sp

This course examines methods, materials, and curriculum of modern mathematics in the elementary school. Observation and laboratory periods are required.

### ELEM 317. Multicultural Education (3); Fa, Sp

A study of educational trends, issues, and problems of students and the teaching methods and strategies necessary to teach respect and tolerance among people.

## ELEM 335-435. Selected Topics in Elementary Education (1-4 VC); Var

Selected topics in elementary education. May be repeated with change of topic.

# ELEM 442. Teaching Elementary School Science and Social Studies (3); Fa

Development of teaching strategies appropriate to recent innovations in science and social science teaching for multicultural classrooms. This course incorporates project-based learning.

# ELEM 451. Field Base III Teacher Preparation Experience: Secondary (6); Fa, Sp

This course provides analysis and evaluation of the student's own performance in student teaching, based on knowledge of the profession and reflective observation. A special fee is assessed. Prerequisite: Permission from the Office of Field Experiences. Corequisites: GNED 445 and 455.

## ELEM 490. Independent Study in Elementary Education (1-4 VC); Var

Individual study arranged with an instructor. Prerequisite: Permission of instructor.

### General and Secondary Education (GNED), Courses in

### GNED 201. Introduction to Teaching (3); Fa, Sp

Introduction to the historical, philosophical, and sociological foundations of education, especially as it relates to a multicultural environment. Students will use those foundations to develop strategies related to problems, issues, and responsibilities in the broad and specific educational arenas. Corequisite: GNED 251.

# GNED 251. Field-Based 1 Teacher Preparation Experience (I); Fa, Sp

Initial observations of classroom environments; determining what classroom teachers do. The class combines field observations (28 clock hours) with an on-campus seminar. Corequisite: GNED 201.

### GNED 302. Educational Psychology (3); Sp

Theories and research in learning and their implications for curriculum and instruction.

## GNED 320. Language Acquisition and Linguistics for Teacher (3); Sp

This course provides for in-depth study of first and second language acquisition and a broad background in linguistics.

# GNED 322. Licensure Test Prep Language Arts & Writing (1); Fa, Sp

This course is designed to help students preparing to take the New Mexico Teacher Licensure test focusing on the Essential Academic Skills Assessment of reading and writing.

### GNED 324. Licensure Test Prep Teacher Competency (1); Fa, Sp

This course is designed to help students preparing to take the New Mexico Teacher Licensure test focusing on the Professional Knowledge.

#### GNED 326. Licensure Test Prep Math (1); Fa, Sp

This course focuses on the Essential Academic Skills Assessment and the Assessment of Math to help students preparing to take the teacher licensure test. This course is designed to be a review of the Pre-Algebra and Algebra I content covered on the Math section of the New Mexico Teacher Licensure test.

## GNED 335-435. Selected Topic in General Education (1-4 VC); Var

Course in topic or topics in general education: may be repeated with change of content.

# GNED 351. Field-Based 2 Teacher Preparation Experience (2); 1, 2 Fa, Sp, Su

The development of analytical and reflective reports based on field observation (42 clock hours) of different methods and teaching strategies used in the classroom. These reports form the basis for class discussions. Students will also have the opportunity to implement classroom lessons.

# **GNED 410.** The Art and Science of Teaching in Secondary Schools (3); 3, 2 Fa

Designed to provide an overview of curriculum and organization in the secondary school and to offer actual teaching experience in a micro-teaching situation, applying basic teaching strategies and techniques for the purpose of developing teacher competency. A special fee is charged.

## GNED 412. Theories and Principles of Bilingual Education (3); Sp

Fundamental theories and principles of bilingual education, preparing the prospective teacher to address the issues and concerns intelligently in the classroom.

## GNED 417. English as a Second Language (3); Fa, Sp

A study of English as a second language, conveying methods and procedures of teaching English to children and adults for whom English is not the native tongue. Students will be introduced to second language acquisition theories and basic elements of the sound system. Prerequisite: RDED 315.

### GNED 420. Sheltered English for Content Area Instruction (3); Fa

This course provides a set of linguistic, instructional, assessment, and class-room-management practices that allows English language learners (ELLS) from the advanced-beginner level on the develop content-area knowledge, operational skills and increased language proficiency. Prerequisite: ENGL 317.

# GNED 437. Instructional Methodologies for Use in Spanish-Bilingual Classrooms (3); Fa

Demonstrate knowledge of and use theories, approaches, methods and techniques for teaching literacy, biliteracy and other academic skills in English and the native language. Spanish is the language of instruction and student participation/presentations. Prerequisite: SPAN 201 or SPAN 202.

## GNED 444. Technology in Education (3); Fa, Sp

Provides teachers a working knowledge of the PC and its applications in education. A special fee is charged. This course incorporates project-based learning.

### GNED 445. Knowledge of the Profession (3); Fa, Sp

Legal, ethical, professional and organizational issues related to education. Developing skills in collaborating and communicating effective with colleagues, administrators and other professionals. Prerequisites: Completion of core and major requirements. Corequisite: Student teaching.

## GNED 450. Seminar in General or Secondary Education (1-4);

Seminar course in a topic or topics in general or secondary education.

# GNED 451. Field Base 3 Teacher Preparation Experience: Secondary (6); Fa, Sp

Analysis and evaluation of the student's own performance in student teaching, based on knowledge of the profession and reflective observation. A special fee is charged. Prerequisite: NMTA exam, 2.5 GPA, admission to student teaching. Corequisites: GNED 445 and GNED 455.

## GNED 452. Field Base 3 Teacher Preparation Experience: K - 12 (6); Fa, Sp

Analysis and evaluation of the student's own performance in student teaching, based on knowledge of the profession and reflective observation. Both elementary and secondary settings are utilized. A special fee is charged. Prerequisite: NMTA exam, 2.5 GPA, admission to student teaching. Corequisite: GNED 445 and GNED 455.

#### GNED 453. Field Base 3 Internship (6 - 12 VC); Var

The internship program in the School of Education is a New Mexico State Department of Education approved equivalent to the Field-Base III block. Internships are ONLY considered at the request of a school district. A special fee is charged. Prerequisite: Admission to student teaching, passed all three parts of the New Mexico Teachers Exam (NMTE), completed all required coursework, and permission of the instructor.

#### GNED 455. Classroom Management (3); Fa, Sp

Introduces the student to a variety of techniques for managing behavior in the classroom. Major areas and specific techniques within each will be presented and practiced both in the class and in the student's own teaching situation. Prerequisite: Admission to student teaching. Corequisite: Appropriate major Field-Based III Experience and GNED 445.

### GNED 461. Assessment and Evaluation of Students (3); Fa, Sp

Problems in the construction and use of teacher-made and standardized tests. The course also emphasizes the gathering and interpreting of data, reporting of test information, and development of a district wide testing program.

#### GNED 490. Independent Study (1-4 VC); Var

Individual, directed study arranged with an instructor. Prerequisite: Permission of instructor.

#### Reading (RDED), Courses in

## RDED 315. Early Literacy (3); Fa, Sp

Early literacy instruction, including reading, writing, speaking, listening, viewing and visually representing, and other modalities of learning. Special emphasis will be placed on addressing current research regarding teaching early literacy, including phonics, phonemic awareness, fluency, comprehension, and vocabulary. Knowing and using children's books and authors to promote early literacy. A two-hour-per-week practicum/lab in a K-3 classroom is required. Prerequisites: Admission to the Teacher Education Program and GNED 201.

### RDED 335-435. Selected Topic in Reading (1-4 VC); Var

Course in topic or topics in reading. May be repeated with change of content. Permission of instructor is required.

### RDED 411. Teaching/Diagnosis of Reading (3); 2, 2 Fa, Sp

An overview of teaching reading in the primary and intermediate grades and diagnostic tools and corrective instructional techniques in the classroom. Emphasis is placed on developing competencies in the teaching of reading and adopting reading instruction based on knowledge of reading processes, methods, and materials. A two-hour lab is also required. Prerequisites: Field Base I and II.

# RDED 416. Teaching Reading and the Language Arts in the Bilingual Classroom (3); Sp

Methods and materials in the Spanish-English bilingual classroom, with em-

phasis on the development of reading and language arts skills in bilingual children. The class is taught primarily in Spanish. Prerequisite or corequisite: permission of instructor.

#### RDED 418. Language Arts (3); Sp, Su

This course focuses on methods for teaching language arts in the elementary/secondary school classroom. Students will be introduced to best practices in the teaching of language arts and the research and theory behind these practices. A developmental and cultural perspective will be emphasized throughout the course, documenting qualitative and quantitative changes students experience as they progress in the language arts.

## RDED 420. Literacy for English Language Learners (3); Fa, Su

This course examines theories of literacy acquisition and development with the breadth of issues in the teaching of English Learners.

## RDED 426. Reading and Literature for Children and Young Adults (3); Fa

Exploration and evaluation of the artistic qualities of folk and fairy tales, myths, legends, fables, epics, hero tales, and realistic stories for children (pre-school to grade 8) and young adults (grades 9 to 12), with a view toward helping teachers to motivate youngsters to develop reading skills while reading relevant literature.

### RDED 427. Reading in the Content Area (3); Fa, Sp

Survey of techniques for the development of reading/study skills needed at the secondary level as students employ reading as a tool for learning.

### RDED 430. Reading Instruction in Special Education (3); Fa

The study and application of reading instructional strategies for students in special education, focusing on research-based corrective strategies used across content areas to support students in both the general education curriculum and functional curriculum.

# RDED 440. Integrated Technology in Language Arts Curriculum (3); Sp

This course teaches students to integrate technology into the P-12 Language Arts curriculum. Such integration will include the use of various websites, software application programs, synchronous and asynchronous course learning management system tools, SmartBoard technologies, and digital camera and recording equipment. As part of this course, students will be required to prepare computer-generated graphic organizers, database, presentations, podcasts, wikis, blogs, and electronic portfolio while incorporating the appropriate benchmarks, standards, and performance criteria from the New Mexico Public Education Department.

### RDED 442. Literacy & Technology (3); Su

The course is designed to help students demonstrate understanding and apply knowledge of contemporary and historical issues in literacy, technology, and education and reflect on how those issues influence professional practice. Survey of techniques for the development of reading skills needed at the secondary level as students employ reading as a tool for learning.

## RDED 445. Literatura Infantil y Juvenil Para el Salon Bilingue (3); Sp

This course focuses on the teaching of reading in the Spanish-English bilingual classroom using authentic literature from throughout the Spanish-speaking world with emphasis upon the development of reading and language arts skills in bilingual children. Since most material is in Spanish, an intermediate level of Spanish or instructor permission is required.

#### RDED 490. Independent Study (1 - 4 VC); Var

Individual study arranged with the instructor. Prerequisite: Permission of instructor.

## Special Education (SPED), Courses in

### SPED 214. Introduction to Special Education (3); Fa, Sp

Identification of exceptional children with respect to educational opportunities; current concepts and goals of special education; specific consideration

of educational programs; and a survey of trends and professional opportunities. Prerequisite to special education courses.

#### SPED 234 - 434. Practicum in Special Education (1-6 VC); Var

Supervised work in a special education program setting. Special fee. Prerequisite: Permission of instructor.

#### SPED 235 - 435. Selected Topic in Special Education (1-4 VC); Var

Course in topic or topics in special education. May be repeated with change of content.

#### SPED 401. Diagnosis of the Exceptional Child (3); Fa, Sp

Practice in the use of a variety of data-collection instruments and techniques, as well as procedures for writing up the data collected, making referrals, and developing an instructional program.

# SPED 410. Curriculum & Methods for Student with Mild and Moderate Exceptionalities (3); Fa

An examination of curriculum content, instructional methods, and individualized education programs appropriate for students with mild and moderate cognitive or behavioral exceptionalities and whose education focuses primarily on the general education curriculum.

## SPED 412. Foundations of Gifted Education (3); Fa, Sp

This course has been designed as a one semester introduction to and overview of the field of gifted education. Topics include: theoretical and historical contexts; characteristics of gifted learners; influences on gifted learners (family, community, culture, etc.); identification of gifted, talented and creative learners; instructional models and practices; legislations and policy guidelines; and current issues in the field. This course has been designed to include: lecture, small & large group discussion, student presentations, expert presentations, and various types of "observations" of gifted learners and learning environments.

#### SPED 414. Instructional Strategies for Gifted Education (3); Sp

This course has been designed as a one semester introduction to learn instructional strategies, methods, and tecchniques of teaching the gifted student, which are explored. Opportunities are provided for development of strategies based on principles of curricular differentiation for gifted students. Prerequisite: SPED 412.

# SPED 416. Instructional Planning and Curriculum for Gifted Education (3); Fa

This course explores how appropriate curricula for the gifted is a response to the cognitive and affective needs which may be unique to gifted learners as well as those they share with their peers. Participants will examine modifications in the content, process, product, affect, and learning environment of classroom and curricula as they relate to gifted learners. They will gain experience in developing concept-based, open-ended, flexibly paced curriculum that can be implemented in the classroom immediately. Prerequisite or corequisite: SPED 412.

# SPED 418. Twice Exceptional and Special Populations of Gifted Learners (3); Su

The focus of this course is to introduce participants to gifted students with disabilities, also known as Twice Exceptional or 2X students. The course will describe research-based characteristics, identification and programming options and will assist students, as per the mission statements, to recognize and nurture outstanding potential so that gifted students with disabilities may become all that they are capable of.

# SPED 420. Curriculum & Methods for Students with Severe Exceptionalities (3); Sp

An examination of curriculum content, instruction methods, and individualized education programs appropriate for students with severe cognitive or behavioral exceptionalities and whose education focuses on both the functional curriculum and the general education curriculum.

## SPED 422. Learning Environments and Social Interactions for

#### Gifted Education (3); Var

This course has been designed as a one semester introduction to learn and explore about the learning environments and social interactions of teaching gifted students. Opportunities are provided for development of strategies based on principles and best practices for gifted students.

# SPED 424. Working with Families of Children with Exceptionalities and Giftedness (3); Var

This course is an examination of the philosophical foundations and collaborative strategies for teachers and other professionals working with families of children with exceptionalities, including special education needs, giftedness in the P-12 experience.

#### SPED 428. Assessment Issues for Gifted Education (3); Var

This course explores the Examine instruments, techniques, and strategies in the assessment, placement, and evaluation of ELL, Gifted, Exceptional and General Learners in P-12 education. This course is designed to provide knowledge and skill regarding assessment procedures, process (including pre-referral and Response to Intervention), and protocols utilized in making eligibility and instructional decisions regarding individualized education programs and placements. In additions, candidates develop an understanding of assessment terminology, accommodations, and fidelity of implementation, as well as culturally appropriate assessments, and gain expertise in communicating assessment results to key stakeholders including student and families. Prerequisite: field experience.

#### SPED 430. Reading Instruction in Special Education (3); Fa

The study and application of reading instructional strategies for students in special education focusing on research-based corrective strategies used across content areas to support students in both the general education curriculum and functional curriculum.

#### SPED 450. Seminar in Special Education (3); Sp

A seminar course in a topic or topics in special education.

# SPED 451. Field Base III Teacher Preparation Experience: Special Education (6); Fa, Sp

Analysis and evaluation of the student's own performance in student teaching, based on knowledge of the profession and reflective observation. A special fee is assessed. Prerequisite: Admission to student teaching. Corequisite: GNED 455.

## SPED 455. Classroom Management in Special Education (3); Fa, Sp

An examination of behavior management techniques, reward systems, and fading and intermittent reinforcement schedules used with students who exhibit more severe behavior exceptionalities. School-wide, classroom and individual student behavior intervention plans will be reviewed, with emphasis on behavior manifestation determination and other IDEA mandates for addressing students' behavioral needs.

## SPED 482. Young Children with Diverse Abilities (3); Su

This course builds on the broad knowledge gained in previous coursework. It provides a specific focus on educational policies, programs, practices, and services appropriate for infants, toddlers, preschoolers, and early primary children who exhibit delays and disabilities. The course will provide a means toward a deeper understanding and sensitivity to the needs and feelings of children with diverse abilities and their families. The foundations include research-based decision-making, developmentally and individually appropriate practices, a holistic view of young children and their families, cultural sensitivity and competence, and activity-based interventions. Legal requirements of educating the child with disabilities or other special needs will be identified. Cross-listed as ECME 482.

## SPED 490. Independent Study (1 - 4 VC); Fa, Sp

Individual study arranged with an instructor. Prerequisite: Permission of instructor.

### SPED 499. Independent Research (1 - 4 VC); Fa, Sp

Individual research arranged with an instructor. Prerequisite: Permission of instructor.

## Facundo Valdez School of Social Work

Cristina Durán, LISW, Ph.D., Dean

Lora Shields Science Annex and Albuquerque Center 505-260-6183 or 505.454.3563 Email: duranc@nmhu.edu www.nmhu.edu/socialwork

#### Accreditation

The Facundo Valdez School of Social Work has been accredited by the Council on Social Work Education (CSWE) since 1974 and is accredited through 2020. The Facundo Valdez School of Social Work has been recognized by North Central Accreditation as an Academic School of Excellence.

#### Mission of the School of Social Work

The New Mexico Highlands University Board of Regents approved, on December 17, 2015, a change in the name to the School of Social Work to honor the founder of the School, Facundo Valdez. The mission of the Facundo Valdez School of Social Work is to educate students to practice social work competently with the diverse, multicultural populations of New Mexico and the Southwest. This context of cultural and regional responsiveness informs the school's creation and implementation of all its educational programs.

The School has a primary commitment to Hispanic and Native American people. Our curriculum grounds students in core professional social work values and skills and ethical principles and promotes a focused awareness and respect for cultural differences and how poverty affects the well-being of people in the region.

The Facundo Valdez School of Social Work offers the Bachelor of Social Work (BSW) Program at the main campus, Las Vegas, New Mexico, and at the following four campus locations:

- NMHU SSW at Albuquerque, Albuquerque, NM
- NMHU Rio Rancho Center, Rio Rancho, NM
- NMHU at San Juan College (SJC), Farmington, NM
- NMHU at Higher Education Center (HEC), Santa Fe, NM

#### **Faculty and Administration**

Facundo Valdez School of Social Work at Las Vegas (Main Campus) Box 9000

Las Vegas, NM 87701

505.454.3563 FAX: 505.454.3290

## Administration - Facundo Valdez School of Social Work at Las Vegas

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Faculty - Facundo Valdez School of Social Work at Las Vegas

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Debra Rodda, MSW, dkrodda@nmhu.edu

### Facundo Valdez School of Social Work at Albuquerque

5401 Indian School Rd. NE, Suite 100

Albuquerque, NM 87110

505.260.6181 FAX: 505.896.6122

#### Administration - Facundo Valdez School of Social Work at Albuquerque

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#### Facundo Valdez School of Social Work Rio Rancho Center

See: School of Social Work at Albuquerque

### NMHU at Higher Education Center (HEC), Santa Fe

1950 Siringo Road Santa Fe, NM, 87505 505.426.2126 FAX: 505.428.1147

#### Administration - NMHU at HEC

Jeannette Baca, MSW, Adviser, NMHU Center at HEC See also: NMHU SSW at Las Vegas

#### NMHU at San Juan College

Buddy Rivera, Director, NMHU Center at SJC 4601 College Boulevard Farmington, NM 87402 505.566.3552 FAX: 505.566.3584

### Administration - NMHU at SJC

Rey Martinez, LMSW, Ph.D. Program Coordinator Tori Miller, Field Secretary

#### **Bachelor of Social Work Program (BSW)**

The bachelor of social work prepares generalist social work practitioners with the knowledge, skills, values, and ethical principles necessary to practice with Hispanic, American Indian, and other diverse populations of New Mexico and the Southwest.

The curriculum builds upon a liberal arts perspective and prepares students at a generalist level to understand and evaluate the role of the social work practitioner in the delivery of human services.

The program is a 53-credit major, completed in four full-time semesters. Students majoring in social work are not required to complete a minor program of study. Prior to beginning the BSW program, the proficiency, extended core, general education core and general elective courses may be completed at the NMHU – Las Vegas campus or local universities and community colleges. Approved equivalent coursework may be accepted in transfer from other two- or four-year regionally accredited educational institutions.

### **Advisement**

Prospective students are encouraged to contact the school for pre-program advisement, course sequencing and major requirements. Please note that course sequencing is subject to change depending on program needs.

Academic advisers are available at each site to review and guide students on their progress to transition into the BSW program. It is advised that prospective students address all pre-program coursework prior to beginning the BSW program. Upon matriculation into the BSW program, students are assigned an academic adviser. Although almost all students complete the BSW program within two years of their undergraduate education, the maximum time limit is five years. It is the student's responsibility, with the assistance of an academic adviser, to develop a program of study that details the semesters in which individual courses are to be taken.

### **Academic and Behavioral Expectations**

All social work students are provided with a copy of the school's academic and behavioral policy upon matriculating into the BSW program. The policy outlines expectations regarding students' professional behavior and academic performance, sets forth grounds for suspension and expulsion from the social work program, and describes the procedures for disciplinary action. As more specifically detailed in the policy, students must demonstrate the following: suitabil-

ity for the profession of social work via appropriate and adequate classroom and field performance; ability to appropriately relate to colleagues; and compliance with all other provisions of the academic/behavioral policy. Students must demonstrate that they have read and understand this policy by signing it and returning it to their academic adviser. The School's policy concerning grade appeals is also provided to students at the commencement of the academic year.

#### Code of Ethics

All students in social work are required to have knowledge of and adhere to the Social Work Code of Ethics.

#### **Transfer of Credit**

Transfer of credit for social work courses will not be considered unless courses have been completed at another school of social work accredited by the Council of Social Work Education (CSWE). Courses must have been completed within five years from the date of enrollment.

## **Incomplete Grades**

Incomplete grades in prerequisite courses must be completed prior to registering for the following semester. Students will not be permitted to continue until the incomplete (I) mark is removed from the official transcript.

# Students Holding an Associate of Arts or Associate of Applied Science Degree

Any student with an associate of arts or associate of applied science (AAS) degree may present an academic transcript to be considered for course credit transfer. Upon verification that the AA or AAS academic transcript demonstrates completion of coursework equivalent to the required university proficiency and core curriculum requirements, the AA or AAS degree will be accepted for transfer and the student will be given credit toward completion of the BSW degree. A minimum of 120 credit hours is needed to complete the BSW degree, which is comprised of 75 credit hours of pre-program coursework and 53 credit hours of social work courses. A student may have to take additional elective courses to meet the university's 120-credit-hour requirement to complete the degree.

Transfer courses are evaluated on a course-by-course basis to determine whether they meet the general core requirements. Students transferring from a regionally accredited institution of higher education in New Mexico with an earned associate degree will have New Mexico Highlands University proficiency, extended core, and minor requirements waived. Students are encouraged to complete the AA or AAS degree and the 35-hour common core and program prerequisites during their freshman and sophomore years to assure completion of the bachelor's degree within two additional years.

## **Field Practicum**

BSW students are required to complete 448 hours of field practicum during their senior year, either in a concurrent or a block placement. Students in field practicum must complete all university core requirements and all 300-level (junior standing) courses prior to enrolling in field practicum. All practicum placements require the approval of the director/coordinator of field education.

Students are placed with the same community agency for two days, 16 hours per week, for two consecutive semesters. BSW students enrolled in concurrent practicum placement must also register for one field practicum seminar course each semester. Concurrent field practicums are offered as fall-spring or as spring-summer placements.

Block field practicum placements are only offered during the summer term. Students must complete all required social work courses prior to beginning block placement/practicum. Students enrolled in a block field practicum placement are placed with a community agency for five days, 40 hours per week, for approximately 12 weeks. BSW students must enroll in two field seminars and two field practicum courses the summer they are in block practicum.

#### **Student Stipends**

The Facundo Valdez School of Social Work, in partnership with the Children, Youth, and Families Department (CYFD), offers stipends to students who wish to pursue a career in child welfare under the Title IV-E stipend program. All undergraduate students ready to enter senior-level coursework are eligible to apply for the stipends. Students must conduct their field practicum with a CYFD office for one academic year.

Stipend recipients are required to take the SW 400 Children's Services course. The average stipend amount awarded to students is \$11,000 per academic year. Amount of stipend award is subject to change.

Upon completion of the BSW program, stipend recipients must work for CYFD for a period of 18 months for each academic year a stipend is received. Stipend application information is provided to all students during the second semester of their junior year.

### **Student Association**

Students are encouraged to participate in the Undergraduate Social Work Student Association (UGSWSA) and other university student associations.

Student Responsibilities

Students are responsible for knowing and following the correct procedures and for meeting the conditions established for their academic programs. This includes completion of all university and school course requirements.

## **Grade Point Average**

A grade point average (GPA) of 2.5 is required for admission to the bachelor of social work major program. Additionally, the student must maintain at least a 2.5 GPA to continue in and complete the program.

Application and Admissions Process for Entrance to the Social Work Major

Students majoring in social work must declare their major during their sophomore year. Students interested in pursuing a BSW degree at New Mexico Highlands University must:

- Apply for admission to Highlands (this applies to students who have not previously attended NMHU).
- Have a minimum of a 2.5 GPA.
- Complete lower division coursework that meets the university proficiency and liberal arts requirements.
- A minimum of 120 credit hours is required to complete a BSW degree.
  This includes the 75 credit hours of pre-program coursework and 53
  credit hours of BSW courses for the major. A student may have to take
  additional elective courses to meet the university's 120-credit-hour requirement to complete the degree.

## Social Work

### Major in Social Work

The social work major, leading to a bachelor of social work degree, consists of 53 credit units. Students majoring in social work are not required to have a minor program of study. Students must complete all required 300-level courses before proceeding to take 400-level senior courses.

### Required courses: 53 credit hours

SW 330 Research Methods 1 (3)

SW 331 Law and Ethics (3)

SW 341 Social Policy & Services 1 (3)

SW 365 Generalist Social Work Practice 1 (3)

SW 366 Generalist SW Practice 2 (Interviewing & Assessment) (3)

SW 383 HBSE 3 (Human Diversity & Multicultural Theory) (3)

SW 385 HBSE 1 (Group, Org, & Com Theories) (3)

SW 386 HBSE 2 (Individual & Family Theories) (3)

SW 430 Research Methods 2 (3)

SW 432 Field Practicum 1 (4)

SW 434 Field Practicum 2 (4)

SW 444 Case Management (3)

SW 451 Field Practicum Seminar 1 (1)

SW 452 Field Practicum Seminar 2 (1)

SW 465 Generalist Social Work Practice 3 (3)

SW 466 Generalist Social Work Practice 4 (Macro Practice) (3)

SW 468 Theories of SW Practice (3) SW Electives: choose two courses (4)

Major Total: 53 credit hours Core Total: 35 credit hours Extended core: 5 credit hours

Proficiency/Electives to 120: 27 credit hours\*

Total for degree: 120 credit hours

\*A minor is not required. Additional credit hours may be required to meet the 120-credit degree requirement if proficiency or other required courses are waived for content only. The English and math proficiency courses do not count toward the university's 120- credit degree. The university requires a minimum of 45 upper-division units for the degree.

## SOCIAL WORK (SW), COURSES IN

SW 330. Research Methods 1 (3); Sp

This is the first course in the undergraduate research sequence. It introduces students to qualitative and quantitative methodologies used in social research and assessment. The course also covers statistical analysis and the use of computer technology in social research. Research on behalf of the diverse populations of New Mexico and the Southwest is emphasized. Prerequisites: SW 341 and SW 342.

SW 331. Law and Ethics in Social Work (3); Fa

The course examines areas of the law in which social work and our legal system intertwine. It also surveys ethical principles and related legal concepts that impact professional social work, and introduces a framework for the resolution of practice dilemmas. Finally, the course provides students with basic practice skills necessary to find and interpret the law. Major emphasis is placed on the operation of the legal system in New Mexico and the Southwest.

SW 335 - 435. Selected Topics in Social Work (1-4 VC)

One or more elective courses relating to selected topics in social work practice.

SW 341. Social Policy and Services 1 (3); Fa

This first course in the two-part sequence covers the history of social work, the history and current structures of social welfare services, and the knowledge, values, and skills necessary to understand major social welfare policies. This foundation course introduces analysis of organizational, local and state issues, and policy analysis and advocacy. All course content is oriented to understanding the effects of social policies on Hispanics, Native Americans, and other historically oppressed populations.

SW 365. Generalist Social Work Practice 1 (3); Fa

This first course in the practice sequence introduces students to multiple theoretical approaches to generalist practice with diverse individuals. The philosophical and ethical foundations of social work are examined as they manifest in each step of the social work process. Practice knowledge and skills necessary for ethical and competent generalist practice with emphasis on the diverse populations of New Mexico and the Southwest are covered.

SW 366. Generalist SW Practice 2: Interviewing and Assessment (3); Sp

This second course in the practice sequence focuses on skills and strategies for competent and ethical foundation-level interviewing and assessment with diverse clients throughout the life span. Generalist practice interviewing and assessment techniques for children, adolescents and adults will be included. Emphasis is placed upon practice with Hispanic, American Indian, and other

oppressed populations of New Mexico and the Southwest. Prerequisite: SW 365.

SW 383. Human Diversity and Multicultural Theory (HBSE 3) (3); Sp, Su

The course surveys relevant theory describing the ethnocultural context of human behavior. The manner in which culture impacts the social functioning of individuals, families, organizations, and communities is addressed. Consistent with the mission of the social work program, primary emphasis is placed upon Hispanic, Native American, and other diverse populations of New Mexico and the Southwest. Prerequisite or Corequisites: SW 385, SW 386.

SW 385.Group, Organization, and Community Theories (HBSE 1) (3); Fa

This two-semester course sequence surveys theoretical perspectives of human life course development and the environmental contexts within which development occurs. The sequence explores the interactions among individuals and between individuals and families, groups, organizations, communities, society, and culture. The sequence emphasizes ethnocultural contexts with special attention on the diverse populations of New Mexico and the Southwest.

SW 386. Individual and Family Theories (HBSE 2) (3); Sp

This is the second course of a two-semester sequence described in SW 385. Prerequisite: SW 385.

SW 400. Children's Services (2); Var

This elective provides an overview of services for the protection of children. Additionally, it surveys child and family welfare policies and programs, with special emphasis on the New Mexico child welfare system.

SW 412. Immigrant Rights (2); Var

This course will examine major historical trends in migration to the United States; public policy regarding migration and the rights of immigrants; and the roles of governmental and nongovernmental organizations. Issues such as immigration enforcement; labor rights; and access to healthcare and public benefits will also be addressed.

SW 414. The Social Determinants of Health and Wellbeing (2); Var

The purpose of this course is to explore the social, societal, governmental, and environmental influences on health and wellbeing. We will Investigate macro-level causes of Individual and social problems so as to Inform treatment and prevention programs and social policy. Specifically, the course will explore not only the health risk and protective factors in the physical and social environment that directly impact health, but also the ways in which they shape health behaviors, and the ways In which they can be addressed by community and governmental intervention.

SW 416. Social Work Practice with Military Families (2); Var

This course surveys the theoretical and practical methods or providing support to military families during the three phases or the deployment cycle. Factors supporting resilience in children and adults in military families will be identified, and diversity in military families explored.

SW 428. Introduction to Substance Use and Abuse (2); Var

This introductory course examines prevention and treatment approaches to alcohol and substance use and abuse. Approaches relevant to work with individuals, families, groups and communities are presented, with special emphasis on Hispanic and Native American populations of New Mexico and the Southwest. Prerequisites: SW 366, 283 and 386.

SW 429. Family Violence (2); Var

The course surveys major sociological and psychological theories of family violence throughout the life span. Social and interpersonal factors contributing to family violence are explored in an ethnocultural context, with special emphasis on the Hispanic and Native American populations of New Mexico and the Southwest. Prerequisites: SW 366, 383 and 386.

SW 430. Research Methods 2 (3); Fa

This second course in the undergraduate research sequence builds on knowledge and skills introduced in SW 330. Additional topics presented include hypothesis development, variables, methods of data collection, research design, instrumentation, and applied research strategies. Research on behalf of the diverse populations of New Mexico and the Southwest is emphasized. Prerequisite: SW 330.

### SW 431. Aging and Gerontology (2); Var

This elective course addresses the emotional, biological, psychological, environmental and legal aspects of aging that occur in the elderly, with special emphasis on the Hispanic and Native American populations of New Mexico and the Southwest.

#### SW 432. Field Practicum 1 (4); Var

The purpose of field practicum is to offer students the opportunity to apply classroom knowledge to practice. The field practicum requires students to be placed with a community agency during their senior year. In their agency placement, students are expected to demonstrate social work skills, knowledge, and values in working with individuals, groups, families, and communities. A total of 208 hours of field practicum/placement are required. Corequisite: SW 451 and SW 465.

#### SW 434. Field Practicum 2 (4); Var

This foundation practicum sequence is designed to help students apply foundation knowledge of social work skills, values, and ethics in practice. By providing a series of supervised assignments and tasks, the practicum experience will expose students to a variety of social work roles. Students will apply generalist social work knowledge, skills, and values to practice with individuals, couples, families, groups and communities. Corequisites: SW 452 and SW 466.

#### SW 437. Grief Assessment and Intervention (2); Var

This elective examines grief and loss theory from a strengths-based development and multicultural perspective. The focus of the course is grief interviewing and case-based grief assessment and treatment across the life span with added emphasis on the diverse populations of New Mexico and the Southwest, including Hispanic and Native American peoples. Prerequisites: SW 366, 383 and 386.

### SW 440. Social Work in Healthcare Settings (2); Var

This course addresses models of medical social work practice and current changes in the healthcare and health insurance industry and their implications for social work practice. While this is not a course in medical information, the class will include use of basic medical terminology, a review of practice in various medical settings, and with various client populations. Prerequisites: SW 266, 383 and 386.

## SW 444. Case Management (3); Fa

This required senior-level course introduces students to case management practice in the context of professional social work. Students will acquire skills in developing, implementing, and monitoring a variety of case management plans. Interagency collaboration will be stressed. Case management for selected vulnerable populations will be studied. Prerequisite: Completion of junior-level BSW classes.

## SW 451. Field Practicum Seminar 1 (1); Var

This seminar provides students an opportunity to integrate practice theory with field (practicum) experience. Students are exposed to a wide range of practice situations and will have an opportunity to address pragmatic and procedural aspects of field instruction. Prerequisite or Corequisites: SW 432 and SW 465.

#### SW 452. Field Practicum Seminar 2 (1); Var

This seminar provides students an opportunity to integrate practice theory with field (practicum) experience. Students are exposed to a wide range of practice situations, and will have an opportunity to address pragmatic and procedural aspects of field instruction. Prerequisite or Corequisite: SW 434.

#### SW 465. Generalist Social Work Practice 2 (3); Fa

This third course in the practice sequence builds upon the knowledge and skills previously developed. The course focuses on practice skills necessary for competent and ethical practice with diverse families and groups. Emphasis is placed upon generalist social work practice with Hispanic, American Indian, and other oppressed populations of New Mexico and the Southwest. Prerequisites: Completion of all 300-level SW courses. Corequisites: SW 432 and SW 451.

#### SW 466. Generalist Social Work Practice 3 (3); Sp

This final course in the undergraduate practice sequence builds upon the knowledge and skills previously developed. This course introduces students to macro-level practice theory and skills necessary for competent and ethical practice. Topics include community organizing, development, and resource-building with a focus on the rural and urban communities of New Mexico and the Southwest. Emphasis is placed on macro practice with Hispanic, American Indian, and other oppressed communities. Prerequisites: Completion of all 300 level SW courses and SW 465. Corequisites: SW 434 and SW 452.

#### SW 467. Program Development and Grant Writing (2); Var

This course focuses on the attainment and management of fiscal resources and grants within the setting of health, mental health and human service agencies. The nonprofit environment will be highlighted, including the creation and management of Section 501c3 organizations. Particular emphasis will be placed on the creation and funding of programs that address the needs of the diverse client populations. Prerequisites: SW 366, 383 and 386.

### SW 468. Theories of Social Work Practice (3); Sp

This course focuses on a comparative analysis of frameworks, theories, and models of social work practice. The course examines the four forces in psychology as the building blocks of an integrative, multicultural, and ecosystems approach to social work practice. Implications of each practice approach for work at the micro, mezzo, and macro level are examined. Emphasis is placed on the evaluation of the practice approaches for work with diverse populations, with special emphasis on the Native American and Hispanic Populations of New Mexico.

### SW 469. Social Work Practice Skills (2); Var

This elective course focuses on interviewing and interaction skills with client systems and on skills that are required in the day-to-day functioning of social service organizations. Prerequisites: SW 366, 383 and 386.

### SW 492. Independent Research (1-4 VC); Var

Individual research arranged with an instructor. Prerequisite: Permission of instructor.

## **Interdepartmental Programs**

# General Science Degrees for Secondary School Teachers:

### Major in General Science for Secondary School Teachers (Grades 7 - 12)

The purpose of the major is to provide science teachers in training with a fundamentally strong background in the basic sciences. Therefore, a greater pool of talent in the field of science education will be created from which surrounding middle schools and high schools can draw. The program has been designed to emphasize the fundamental understanding of both physical and life sciences. Courses will be selected from biology, geology, chemistry, computer science, and physics. The objectives of the general science major are to:

- Provide science teachers in training with a multidisciplinary program that will adequately prepare them to teach the science courses expected in middle school and high school science programs.
- 2) Prepare science teachers to develop each of the competencies required by the State Board of Education for licensure in science education.

Students must complete the NMHU Core Curriculum requirements, which should include a minimum of Math 140 and eight credits from the lab sciences listed below. Math 211 and Math 160 are required for the BS rather than a BA degree. The BS degree is recommended for students preparing to teach high school.

## Required core: 49 credit hours

BIOL 211 General Biology 1 (4)

BIOL 212 General Biology 2 (4)

CHEM 211 General Chemistry 1 (3)

CHEM 212 General Chemistry 2 (3)

CHEM 215 General Chemistry Lab 1 (2)

CHEM 216 General Chemistry Lab 2 (2)

CS 144 Introduction to Computer Science (3)

GEOL 101 Survey of Earth Science (4)

GEOL 202 Earth Histories (4)

BIOL 420 Teaching Science & Math in Secondary School (3)

### Choose one set from the following:

PHYS 151 Algebra Physics 1 (4)

PHYS 152 Algebra Physics 2 (4)

OR

PHYS 291 Calculus Physics 1 (5)

PHYS 292 Calculus Physics 2 (5)

Choose one of the following:

BIOL 359 Fundamentals of Lab Safety (1)

CHEM 359 Fundamentals of Lab Safety (1)

Total Core: 43 credit hours

## Electives: 16 credit hours

With the advice of a science adviser, select at least one course from each of biology, chemistry and geology for a minimum of 16 credits above the 300 level. In addition the student must undertake a minor in secondary education. Students must fulfill requirements for entrance to teacher preparation and licensure. Please refer to the School of Education for details.

## Major Total: 59 credit hours

## Minor in General Science for Elementary School Teachers (Grades K - 5)

The purpose of the minor is to provide elementary school teachers in training with a strong background in a variety of concepts in life science, physical science, and earth and space science. Students should consult with an adviser early in their academic career to select the appropriate courses and avoid possible problems with prerequisites or scheduling. Not all of the 300- or 400- level classes are offered every semester or even every year. The objectives of the general science minor are to:

- Provide pre-service elementary teachers with a program that will adequately prepare and encourage them to teach the most fundamental science concepts to students at the elementary school level.
- Broaden the scope of science to elementary school teachers in training, so they will be well versed in all aspects of science allowing them to develop methods in which to relay the content material to their students so that the students can fully understand the concepts. This minor does not satisfy the Secondary School endorsement requirements (grades 7-12) for the State of New Mexico.

#### **Minor in Combined Science**

The combined science minor at NMHU allows students to select courses in two or more of the science fields to include behavioral science, computer science, math, life science and /or physical science. Also, students are advised to remember that the university requires that all minors contain at least 12 credit hours at the 300- to 400- level. A minor in combined science may be used to satisfy the university requirements for the Bachelor of Science degree of a minor in a science field.

## **University Studies Degree**

Bachelor of Arts in University Studies

Dr. Eric Romero, Director

505.454.3009

E-mail: ericromero@nmhu.edu

## Major in University Studies (BA)

The Bachelor of University Studies Program is designed for students who choose to complete a course of study without having declared specifics major or minor. Students can design programs of study in alignment with particular career skills, areas of personal interest or creative compositions of content knowledge. This interdisciplinary and integrated design for study equips students with a variety of learning opportunities and develops a range of transferable skills applicable to all disciplines and to the work force.

A Track 1 Plan begins with UNST 200 course that describes the program and develops an understanding of Student Learning Outcomes (SLO). Students will then determine a personal Plan of Study that identifies 45 credit hours completion: They may choose 30 Credit hours in one specific theme area and 15 credit hours in three separate themes. Student may also choose a three (3) thematic area specialization of 15 credit hours in three separate themes. Students will meet with academic adviser to design a personal Plan of Study (POS) to be submitted to the Registrar's office. This Track 1 Option will be attractive and viable for entry-level students that have not determined a particular Major/Minor plan of study. The UNST 400 Capstone course will finalize student's specialization in their thematic areas of choice. The Capstone will emphasize a pragmatic service-learning or civic engagement projected that intends to align student learning with actual areas of employment, service and personal growth.

A Track II Plan allows transfer students to similarly design a Plan of Study that emphasizes the five University Studies Outcomes Objectives. Transfer students will begin their planning with a UNST 300 level University Studies course that sets the foundations for engaged learning and degree planning. Track II students will also have the options of 30 Credit hours in one specific theme area and 15 credit hours in a second theme area or may choose three (3) thematic area specialization of 15 credit hours in three separate themes. Many transfer students have already developed thematic specialization that can be considered as part of the 45 credit hours content areas. This option would be viable to NMHU Center students that have limited selection of onsite and online course availability.

In addition to the concentration and/ or emphasis area course requirements, all other university requirements for a bachelor's degree must be met. The minimum total credit hours required for graduation is 120. Forty-Five of the 120 credits hours must be upper-division credit hours (300-400). The final year must be completed as a Highlands student with a declared BUS Plan of Study form completed and approved by the BUS Coordinator. An overall GPA of a 2.0 is required for graduation.

Track I

UNST 200 Introduction to University Studies (3)

Thematic Area 1 (30)

Thematic Area 2 (15)

UNST 400 Capstone

OR

UNST 200 Introduction to University Studies (3)

Thematic Area 1 (15)

Thematic Area 2 (15

Thematic Area 3 (15)

UNST 400 University Studies Capstone (3)

Major Total: 51 Credit hours Proficiency Total: 6 credit hours Core total: 45 credit hours Extended core: 5 credit hours Electives to 120: 5 credit hours\* Total for degree: 120 credit hours

\*A minor is not required. Additional credit hours may be required to meet the 120-credit degree requirement of proficiency or the required courses are waived for content only. The English and math proficiency courses do not count towards the university's 120-unit degree. The university requires a minimum of 45 upper-division units for the degree.

Track II

UNST 300 University Studies Program Planning (3)

Thematic Area 1 (30 credit hours)

Thematic Area 2 (15 credit hours)

UNST 400 University Studies Capstone (3)

OR

UNST 300 University Studies Program Planning (3)

Thematic Area 1 (15)

Thematic Area 2 (15)

Thematic Area 3 (15)

UNST 400 University Studies Capstone (3)

Major Total: 51 credit hours Proficiency Total: 11 credit hours Core Total: 35 credit hours Electives to 120: 5 credit hours Total for degree: 120 Credit hours

## Interdepartmental and Orphan, Courses in

### Speech (SPCH), Courses in

### SPCH 124. Beginning Speech (3); Var

A beginning course in public speaking with emphasis on the composition and delivery of the extemporaneous speech. NM Common Core: COMM1113.

#### UNST 101 Integrative Seminar A (3); Fa

Integrative Seminar A encourages students to envision themselves as professionals and to reflect on their own development as they move toward their life goals. Seminar activities are designed to be collaborative, active-learning activities and are aimed at providing a rich environment for students to make multiple connections -- i.e., among their Learning Community courses, between course content and application in the real world, and between their own needs and goals and the demands and expectations of their courses and chosen fields. Such activities may include student reflective work, problem-based learning activities, and case studies; the seminar may also arrange off-campus visits to relevant sites and incorporate presentations by professionals in relevant fields.

#### UNST 101 Integrative Seminar B (3); Fa

Integrative Seminar B, for experienced college students entering NMHU for the first time, encourages students to envision themselves as professionals and to reflect on their own development as they move toward their life goals. Seminar activities are designed to be collaborative, active-learning activities and are aimed at providing a rich environment for students to make multiple connections -- i.e., among their courses, between course content and application in the real world, and between their own needs and goals and the demands and expectations of their courses and chosen fields. Such activities may include student reflective work, problem-based learning activities, and case studies; the seminar may also arrange off-campus visits to relevant sites and incorporate presentations by professionals in relevant fields.

## UNST 200 Introduction to University Studies (3); Fa

UNST 200 is an introduction to the theory of interdisciplinary studies. The course focuses on exploring common pathways and connections among disciplines. It enables students to develop a personal theory of interdisciplinary studies and culminates in a detailed plan for an individualized major.

## **UNST 300 University Studies Program Planning (3); Variable**

Planning a University Studies Program of Study (3) is a course designed for transfer and continuing students whom have already developed some content areas specialization. Course content will identify the 5 learning outcomes identified as drivers to the University Studies Degree program as drawn from their previous coursework and will help students plan out their Specialized Plan of Study.

## UNST 400 University Studies Capstone (3); Sp

This multidisciplinary capstone course is designed to be a culminating experience for a general education. Students from a range of study areas will work in groups on various projects. They will explore connections among their various disciplines and between their own college and o -campus community experiences.

## **Undergraduate Faculty**

**Lauren Addario.** M.A., MACS, NMHU; B.F.A., V&PA, NMHU. Visiting Instructor, Media Arts & Technology.

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