

## *A Message from the Executive Director*

On behalf of the staff and faculty, it is a pleasure to welcome you to UNM-Los Alamos (UNM-LA).

As a branch campus of the largest university in the state, we are able to offer our students many of the same benefits available on the Albuquerque campus. In addition, students at UNM-LA enjoy a tuition rate that is one-fourth the cost of tuition at the Albuquerque campus for lower division courses. With an average class size of 15 students, UNM-LA provides the individual attention more often found at a small liberal arts college than at a state university.

Our exceptional faculty make teaching their top priority. Because of our proximity to Los Alamos National Laboratory, we have been able to attract top faculty in many areas, including technology and the sciences, and many of our students eventually become lab employees. Los Alamos offers excellent employment opportunities in both the public and private sector and UNM-LA works closely with local employers to help students prepare for careers in fields where job prospects are good.

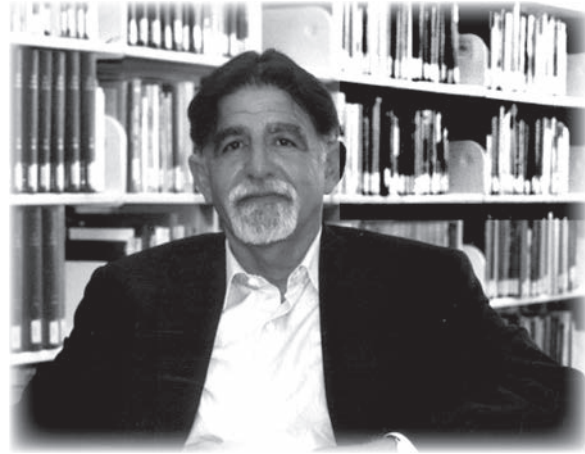
UNM-LA encourages students to participate in campus life. Whether your interests lie with student government, art, music or community service, you'll be encouraged to contribute your talents in making UNM-LA an interesting place to be. We have a beautiful campus and our Student Center is a great place to meet other students, play pool, watch movies, or get a meal.

UNM-LA offers a full range of educational opportunities, including Community Education for both children and adults and Adult Basic Education classes. Through UNM's Extended University, students may complete a bachelor's or a master's degree in selected majors. UNM-LA specializes in courses geared to those completing the first two years of college and to those interested in earning a two-year associate's degree or a certificate in a particular field of study.

Students come to UNM-LA from as far away as Texas and Colorado. We offer centrally located student housing at an affordable rate. Los Alamos has some of the most beautiful scenery in the Southwest and opportunities for outdoor recreation abound. We are proud to present numerous lectures, art shows, concerts and other special events for the enjoyment of our students and the Los Alamos community throughout the year.

The staff and faculty are committed to providing you with the tools you need to succeed at UNM-LA and beyond. If there is anything we can do to make your experience here more rewarding, please let us know.

We welcome you to our campus community and wish you great success. We hope that UNM-LA is the place you choose to start or complete your educational goals.



Sincerely,

A handwritten signature in cursive script that reads "Carlos B. Ramirez". The signature is written in dark ink and is positioned above the printed name and title.

Carlos B. Ramirez, Ph.D.  
Executive Director

# The University of New Mexico-Los Alamos 2004-2006 Catalog

## Equal Educational Opportunity Policy

The University of New Mexico-Los Alamos is committed to providing equal educational opportunity and forbids unlawful discrimination on the basis of race, color, religion, national origin, physical or mental handicap, age, sex, sexual preference, ancestry, or medical condition. Equal educational opportunity applies to admission, recruitment, extracurricular programs and activities, housing, facilities, access to course offerings, counseling and testing, financial assistance, employment, health and insurance services, and athletics. In keeping with this policy of equal educational opportunity, the University is committed to creating and maintaining an atmosphere free from all forms of harassment.

## Affirmative Action Policy

The University of New Mexico-Los Alamos is committed to providing equal educational and employment opportunity regardless of gender, marital or parental

status, race, religion, sexual preference, age, national origin, or handicap. Title IX of the Educational Amendments of 1972 prohibits discrimination on the basis of gender in any educational program or activity receiving federal financial assistance by way of grant, contract or loan. Title VI of the Civil Rights Act of 1964 is similar in its prohibition of discrimination on the basis of race, color, or national origin, and section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 prohibits discrimination against qualified handicapped persons. Equal educational opportunity includes admission, recruitment, extracurricular programs and activities, facilities access to course offerings, counseling and testing, financial assistance and employment.

## Americans with Disabilities Act

To comply with the ADA and the Rehabilitation Act of 1973, the University of New Mexico-Los Alamos

provides this publication in alternative formats. If you have special needs and require auxiliary aids or services, please contact the Tutorial Center in the Learning Resource Center or an academic advisor in Student Services.

## About this Catalog

This catalog is designed primarily to describe the undergraduate programs, courses of instruction, and academic regulations of the University of New Mexico-Los Alamos. The provisions of this catalog are not to be regarded as an irrevocable contract between the student and the University. The University reserves the right to change any provisions or requirements at any time within the student's term of residence.

## Anti-Harassment

It is the policy of the institution to prevent and eliminate forms of unlawful harassment in employment and educational settings. The university prohibits harassment of employees by supervisors or co-workers and harassment of students on the basis of race, color, religion, national origin, physical or mental disability, age, sex, sexual preference, ancestry, medical condition or other protected status. The university makes special efforts to eliminate both overt and subtle forms of sexual harassment.

## Directions for Correspondence

Please address any correspondence to a specific department or individual as follows:

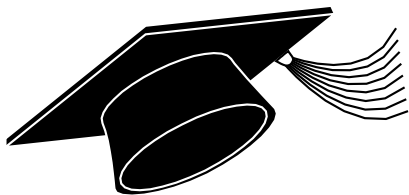
UNM-Los Alamos  
(Department and name of person)  
4000 University Drive  
Los Alamos, NM 87544

Web: [www.la.unm.edu](http://www.la.unm.edu)



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**On the cover:**

*This charcoal drawing, produced in 1989 by artist Martin Amorous, was used for a UNM-Los Alamos poster. The original hangs in the office of UNM-LA Executive Director Dr. Carlos Ramirez*

**Other art and photography:**

*The digital art reproduced on page 58 was created by UNM-LA student James Pyburn. It was originally used on a brochure for the UNM-LA Digital Media Arts program.*

*The photograph of White Rock Canyon on page 8 is by Los Alamos Monitor Photographer Gary Warren and is used with his permission.*

*Other photographs used in this catalog are by the staff of the UNM-LA Public Affairs Office, past and present: Samantha Beres, Erica Silva Hernandez, Gabriella Peppas and Bonnie Gordon.*



Course Schedules are available in hard copy on campus, at many locations around northern New Mexico, and on-line at

**[www.la.unm.edu](http://www.la.unm.edu)**

**Cell phone use is prohibited in classrooms.  
Turn off your phone during class!**

# Academic Calendar Year

## 2004 FALL SEMESTER

Instruction begins..... August 23, Monday  
Petitions for residency due..... September 23, Monday  
Registration ends..... September 27, Friday  
Labor Day Holiday..... September 6, Monday  
End of second week (last day to add  
courses or change sections)..... September 3, Friday  
End of fourth week  
(last day to change grading options) .... September 17, Friday  
End of sixth week (last day to drop a course  
without a grade) ..... October 1, Friday  
Mid-semester (eighth week) ..... October 16, Saturday  
End of twelfth week (Last day to withdraw  
from a course without approval  
of the Associate Director  
for Student Services) ..... November 12, Friday  
Thanksgiving Holiday..... 11/25 – 11/28, Thursday-Sunday  
Withdrawal deadline (Last day to withdraw  
from a course with approval of the  
Associate Director for  
Student Services) ..... December 10, Friday  
Last day of instruction ..... December 11, Saturday  
Final examination  
period ..... December 11-18, Saturday-Saturday  
Last day for report of removal  
of incomplete grades ..... December 17, Friday  
Semester ends..... December 18, Saturday

## 2005 SPRING SEMESTER

Martin Luther King, Jr. Day Holiday .... January 17, Monday  
Instruction begins..... January 18, Tuesday  
Petitions for residency due..... January 18, Tuesday  
Registration ends..... January 28, Friday  
End of second week (last day to add  
courses or change sections) ..... January 28, Friday  
End of fourth week (last day to change  
grading options) ..... February 11, Friday  
End of sixth week (last day to drop  
a course without a grade) ..... February 25, Friday  
Mid-semester (eighth week) ..... March 12, Saturday  
Spring Break ..... March 13-20 Sunday-Sunday  
End of twelfth week (Last day to withdraw  
from a course without approval of the  
Associate Director for Student Services) ..... April 15, Friday  
Withdrawal deadline (Last day to withdraw  
from a course with approval of the  
Associate Director for Student Services) ..... May 6, Friday  
Last day of instruction ..... May 7, Saturday  
Final examination period ..... May 7-14, Saturday-Saturday  
Last day for report of removal  
of incomplete grade ..... May 13, Friday  
Commencement ..... May 13, Friday

Semester ends ..... May 14, Saturday

## 2005 SUMMER SEMESTER

Instruction begins:  
8-week term (First 4-week term) ..... June 6, Monday  
Second 4-week term ..... July 5, Tuesday  
Registration ends (last day to add  
courses or change sections):  
8-week term ..... June 10, Friday  
First 4-week term ..... June 7, Tuesday  
Second 4-week term ..... July 6, Wednesday  
Last day to change grading option:  
8-week term ..... June 17, Friday  
First 4-week term ..... June 10, Friday  
Second 4-week term ..... July 8, Friday  
Last day to drop a course without a grade:  
8-week term ..... June 24, Friday  
First 4-week term ..... June 15, Wednesday  
Second 4-week term ..... July 13, Wednesday  
Independence Day Holiday ..... July 4, Monday  
Last day to withdraw without approval of the Associate  
Director for Student Services:  
8-week term ..... July 8, Friday  
First 4-week term ..... June 22, Wednesday  
Second 4-week term ..... July 20, Wednesday  
Session ends:  
8-week term (Second 4-week term) ..... July 30, Saturday  
First 4-week term ..... July 2, Saturday  
Second 8-week term ..... July 30, Saturday

## 2005 FALL SEMESTER

Instruction begins..... August 22, Monday  
Petitions for residency due..... August 22, Monday  
Registration ends..... August 26, Friday  
Labor Day Holiday..... September 5, Monday  
End of second week (last day to add  
courses or change sections) ..... September 2, Friday  
End of fourth week (last day to  
change grading options) ..... September 16, Friday  
End of sixth week (last day to drop  
a course without a grade) ..... September 30, Friday  
Mid-semester (eighth week) ..... October 14, Friday  
End of twelfth week (Last day to withdraw  
without approval of the Associate Director  
for Student Services) ..... November 11, Friday  
Thanksgiving Holiday ..... November 24-27, Thurs.-Sun.  
Withdrawal deadline (Last day to  
withdraw from a course with approval  
of the Associate Director  
for Student Services) ..... December 9, Friday  
Last day of instruction ..... December 10, Saturday

## Academic Calendar Year

Last day of instruction ..... December 10, Saturday  
 Final examination period ..... December 10-17, Saturday-Saturday  
 Last day of report of removal of incomplete grade ..... December 16, Friday  
 Semester ends ..... December 17, Saturday

### 2006 SPRING SEMESTER

Martin Luther King Jr., Day Holiday .... January 16, Monday  
 Instruction begins ..... January 17, Tuesday  
 Petitions for residency due ..... January 17, Tuesday  
 Registration ends ..... January 20, Friday  
 End of second week (last day to add courses or change sections) ..... January 27, Friday  
 End of fourth week (last day to change grading options) ..... February 10, Friday  
 End of sixth week (last day to drop

a course without a grade) ..... February 24, Friday  
 Mid-semester (eighth week) ..... March 10, Friday  
 Spring Break ..... To be determined  
 End of twelfth week (Last day to withdraw without approval of the Associate Director for Student Services) ..... April 14, Friday  
 Withdrawal deadline (Last day to withdraw from a course with approval of the Associate Director for Student Services) ..... May 5, Friday  
 Last day of instruction ..... May 6, Saturday  
 Final examination period ..... May 6-13, Saturday-Saturday  
 Last day for report of removal of incomplete grade ..... May 12, Friday  
 Commencement ..... May 12, Friday  
 Semester ends ..... May 13, Saturday

**Calendar dates are subject to change without notice.**



# UNM-Los Alamos General Information

## Role and Function of UNM Branch Colleges

The University of New Mexico has established branch colleges to serve the citizens of New Mexico more fully and to provide the highest quality of education throughout the state for students in different locations pursuing post-secondary education. Branch colleges respond specifically to the unique needs and multicultural backgrounds of the citizens in the respective communities they serve by offering transfer programs that prepare students for upper-division entry into colleges and universities. In addition the branches offer associate degree and certificate programs. Branch colleges use resources in the community as well as make educational resources available. Therefore, they also function as an integral part of the community.

The five-member elected UNM-Los Alamos Advisory Board serves as an advisory body to the College and to the University of New Mexico Board of Regents. It approves the annual budget and can call for elections. UNM-Los Alamos continues to benefit from a strong, supportive, and dedicated Advisory Board which is well informed, responsible, and committed to the College and its future.

The branch colleges of the University of New Mexico are considered fully integrated component colleges. They are committed to serving the needs of their respective communities as comprehensive community colleges offering a variety of preparatory academic, career, and community service programs. The branch colleges pledge themselves to protect the quality and integrity of all academic curricula. UNM Albuquerque campus pledges its resources, whenever appropriate and practical, to the fulfillment of the varied missions of the branches. The Provost/Vice President for Academic Affairs at the University of New Mexico, has responsibility for the operation of the branch colleges. From a clear understanding of its role and function, UNM-Los Alamos has developed the following mission statement.

### Mission of UNM-Los Alamos

The mission of the University of New Mexico-Los Alamos is to provide high quality instructional programs and support services to the residents of the communities it serves. To fulfill its mission, UNM-Los Alamos has established the following goals:

1. To offer diversified, high-quality educational programs;
  - Academic Courses, Degrees, and Transfer Curricula
  - Technical and Occupational Programs
  - Developmental and Basic Skills Programs
  - Community Education
  - Adult Basic Education
  - Specialized Training
  - Extended Web, ITV, and Off-Site Instruction
2. To provide high-quality support services that promote student access and success



3. To maintain a highly qualified and diversified faculty and staff
4. To serve as a community resource
5. To seek and establish cooperative partnerships
6. To ensure access to state-of-the-art technologies

### Educational Programs

The University of New Mexico-Los Alamos offers a range of educational programs as defined in the Mission Statement and institutional goals. These programs constitute the heart of the institution.

Academic transfer programs for credit provide the first two years of high quality university education. UNM-Los Alamos is authorized to offer any freshman or sophomore course that appears in the UNM Albuquerque campus catalog for which an appropriate instructor and facilities can be obtained. In addition, UNM-Los Alamos may design courses that respond to the needs of its students. Most of these courses carry full UNM residence credit as though they were taken in Albuquerque. Thus students enrolled in academic transfer courses may complete most of and, in many cases, all of the first two years of a baccalaureate degree at UNM-Los Alamos before continuing their studies at UNM or other four-year institutions.

Associate of Arts and Associate of Science degrees are offered in the following fields: Early Childhood Multicultural

Education, Environmental Science, Liberal Arts, Pre-Business Administration, Pre-Engineering, Science, Southwest Studies and Studio Art.

Certificates are available in Early Childhood Multicultural Education, Environmental Science, Southwest Studies, and Studio Art. These programs are considered to be transfer programs because all or most of the courses required transfer to other four-year colleges and universities.

Occupational and technical programs are offered for academic credit. Associate of Applied Science Degrees in Business/Marketing, Office Communications and Technology, Computer Science, Digital Media Arts, Electro Mechanical Technology, Financial Accounting, Hospitality Administration/Management, Network Administration, Office Administration, Technical Support, and Web Technologies are available.

Certificates are offered in Office Communications and Technology, Business/Marketing, Computer Science, Digital Media Arts, Electro-Mechanical Technology, Financial Accounting, Hospitality Administration/Management, Materials Science Technology, Network Administration, Office Administration, Technical Support, and Web Technologies. A statement of completion is available for the Child Development Associate Credential Preparation Program (CDA). UNM-Los Alamos also offers two Bachelor of Science degrees on this campus, one in Computer Science and another in University Studies.

An Associate Degree in General Studies provides students the opportunity to develop programs of study not available through other UNM-Los Alamos programs. The courses selected may reflect either specialized or broad patterns of educational experience.

Introductory Studies credit courses are offered in math, English, natural science, reading comprehension, and academics. The Introductory Studies courses are components of the College Cornerstone program, which is designed to help students strengthen their areas of academic competencies, as well as ensure successful transition into college. Adult Basic Education and English as a Second Language courses are also offered for students who are not adequately prepared for college-level work. The Tutorial Center provides tutorial services for 100- and 200-level classes to all students on campus and services for students with special needs.

### **Operating Agreement and Funding**

UNM-Los Alamos was established under the provisions of the Branch College Act, New Mexico Statutes of 1978, implemented in an operating agreement between the Los Alamos School Board and the Regents of the University of New Mexico. The Commission on Higher Education, a thirteen-member board appointed by the Governor, is responsible for oversight of higher education in New Mexico. The UNM-Los Alamos Advisory Board serves as the Advisory Board to the UNM Board of Regents. This Advisory Board approves an annual budget for UNM-Los Alamos and calls elections for local tax levies and capital outlay general obligation bonds for UNM-Los Alamos.

The University of New Mexico retains administrative and academic oversight of UNM-Los Alamos, and the Executive Director of UNM-Los Alamos reports to the Provost/Vice President for Academic Affairs at UNM.

Funding for UNM-Los Alamos comes directly from state appropriations and tax levies, from special grants, and from tuition and fees paid by students.

### **Accreditation**

As a Branch College of the University of New Mexico, UNM-Los Alamos is fully accredited by The Higher Learning Commission of the North Central Association of Colleges and Schools.

### **Student Outcomes Assessment**

Student Outcomes Assessment is an essential measure of the institution's effectiveness in achieving its goals as outlined in the UNM-Los Alamos Mission Statement. It is an ongoing process intended to measure student academic achievement and adjust and adopt courses and programs as needed. Faculty have the primary ownership and responsibility for the development, implementation, and monitoring of the Student Outcomes Assessment Program (SOAP). Specific competencies at the course/program level and the assessment tools to measure identified competencies are continuously being developed and continuously being implemented.

### **History of UNM-Los Alamos**

The University of New Mexico began its presence in Los Alamos in 1956 with the establishment of the UNM-Los Alamos Center for Graduate Studies. The Graduate Center has been in continuous operation since that time. It has a distinguished history of offering graduate degrees in scientific, engineering, management, and health-related fields. The first significant UNM undergraduate offering in Los Alamos began with the establishment of the University of New Mexico Residence Center in Los Alamos in the fall of 1970. In 1973, the University of New Mexico Northern New Mexico Branch College came into existence, with Los Alamos as one of its campuses. In 1977, as a result of Legislative action, the UNM Northern Branch College was absorbed into Northern New Mexico Community College (NNMCC).

In 1980, after a local referendum and Board of Educational Finance and legislative approval, the Los Alamos Branch Community College Campus of the University of New Mexico was founded. It began operations on July 1, 1980, in the Little Valley School on Orange Street. The new Director assumed his duties at that time, and several key NNMCC employees were transferred to the UNM-Los Alamos Branch College, which subsequently assumed the informal title of UNM-Los Alamos. In October 1980, the campus moved from the Little Valley School to its present site. In January 1981, the staff of UNM-Los Alamos assumed, under a contractual arrangement, the daily operations of the UNM-Los Alamos Center for Graduate Studies from the Training Office of the Los Alamos National Laboratory. The Director of the Graduate

Center moved his office to UNM-Los Alamos. During 1982-1983, the facilities were remodeled and expanded and the new UNM-Los Alamos campus was dedicated by then Governor of New Mexico, Toney Anaya, on January 6, 1984.

The campus facilities were further expanded in 1987 to include a fifth classroom building. During 1988-89, an institutional self-study was conducted and an accreditation visit took place in May 1989 as part of the University of New Mexico decennial accreditation review. In 1988, the Los Alamos School Board approved additional space in the Mesa Complex for use by UNM-Los Alamos. In 1996, an extension housing the Learning Center, the Tutorial Center, and the Adult Basic Education Program was added to the administration building. Additional classroom, laboratory and office space was obtained in 1997 by negotiation with the Los Alamos Public Schools. In 2000 the expanded and renovated Student Center building was opened. It includes a Student Center with a food service area, classrooms, media room and lecture room. In addition the Student Services support areas including admissions and registration, advisement, and financial aid are located in the lower level of this building.

### Location

Los Alamos, home of the University of New Mexico-Los Alamos campus, is a community of approximately 18,000. The town is located on the pinon, juniper, and ponderosa-covered red mesas of the Pajarito Plateau at an elevation of 7,300 feet. The Jemez Mountains provide a backdrop for the community that looks east across the Rio Grande Valley to the majestic Sangre de Cristo Mountains.

The setting is ideal for the outdoor enthusiast. There are nearby locations for downhill and cross-country skiing and ice skating in the winter. Summer activities include hiking, picnicking, horseback riding, backpacking, and camping, together with fishing and river rafting.

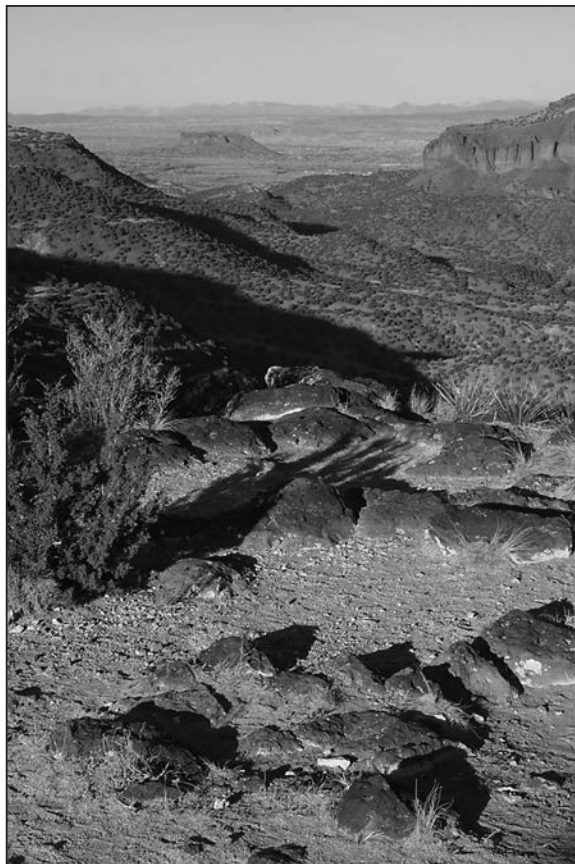
Three renowned races are held in Los Alamos each year: the High Altitude Mini-Marathon, the Tour de Los Alamos Bicycle Race, and the Triathlon.

In April 1988, the Larry R. Walkup Aquatic Center opened its doors to the citizens of Los Alamos and surrounding area. This facility is open to the public and houses an Olympic-sized swimming pool.

There are year-round musical and theatrical events in Los Alamos and numerous other cultural attractions to choose from in Santa Fe, 30 miles away, and in Albuquerque, a 90-mile drive from Los Alamos. There are also year-round events at the nearby pueblos of San Ildefonso, Santa Clara, San Juan, Pojoaque, Tesuque, Nambe, and Jemez.

Located within 15 miles of Los Alamos is the world-famous Bandelier National Monument. The park, home of Native American cliff dwellings as well as many other ancient treasures, is open year-round.

Students at UNM-Los Alamos are fortunate to be able to draw on the rich tri-cultural heritage of the area and to explore all the area has to offer in terms of history, geology, and archaeology.



In addition, UNM-Los Alamos students can take advantage of the outstanding collections of Mesa Public Library and the J. Robert Oppenheimer Study Center at Los Alamos National Laboratory, within two miles of the UNM-Los Alamos campus.

### UNM-Los Alamos Faculty

The faculty of UNM-Los Alamos is predominately part-time. Many of the faculty enjoy international reputations in their fields and all are extremely well qualified. Most UNM-Los Alamos faculty are subject to UNM approval through the various departments at the UNM Albuquerque campus.

About one-third of the UNM-Los Alamos faculty consists of a core of continuing faculty. Core Faculty members, in addition to teaching, hold regular office hours, provide academic advisement, and participate in a variety of committee work and special projects. Invited Faculty are encouraged, but not required, to participate in advisement, hold office hours, and attend various faculty development workshops throughout the academic year.

Curriculum Coordinators for Developmental and General Studies, Fine Arts, Communications, Math, Science, Applied Sciences, Computer Science, Information Technology, and Business are responsible for the coordination of faculty and instructional issues within each curriculum area.



Three Division Heads, one for "Arts and Social Sciences," one for "Natural and Applied Sciences and Engineering," and one for "Business, Computer Science, and Information Technology" advise the administration on curriculum and academic personnel matters and, with the Associate Campus Director for Instruction, monitor the quality of teaching through classroom visits. Other means of class evaluation include a midsemester evaluation survey and a UNM computerized student evaluation survey at the end of the semester.

### **UNM-Los Alamos Facilities**

The facilities at UNM-Los Alamos encompass computer, general science, electronics and laser laboratories, a photography darkroom and art studios, together with general classrooms, woodworking area and a machine shop/welding area. The new Student Services Building, which opened in the summer of 2000, includes the Career Resources Center, UNM-LA Bookstore, Admissions, Registration, Financial Aid, Academic Advisement, Student Government, a lecture hall and general classrooms. The Administration Building (Building 1) includes general offices, the Library, and Tutorial Center.

Parking facilities are available in the campus parking lot east of campus. Access to these facilities is available directly from Diamond Drive. There is additional parking south of the campus in the High School's "Topper" lot located next to Sullivan Field and also in a shared parking lot west of the campus.

Handicapped parking and access are available at UNM-Los Alamos. Handicapped parking is located on the cul-de-sac north of the campus at the end of 40th Street and in front of Building 1. Most of the facilities at UNM-Los Alamos and at the Los Alamos High School are handicapped accessible.

### **Student Housing**

The University of New Mexico-Los Alamos Student Housing consists of 64 efficiency apartments. Student Housing provides an excellent and affordable alternative for students. In addition, living in student housing allows students the opportunity to become independent, responsible and familiar with different lifestyles.

All of the units include a primary living/sleeping area, kitchenette, three-quarter and/or full bath, and a walk-in closet. Each unit is furnished with a sofa, table, chairs, desk, dresser and bed. Electricity, gas, water, garbage service and basic cable television are included at no extra cost.

All apartments have individually controlled thermostats. Pets and smoking are not permitted. Student Housing is located on 9th street, a three-minute drive east of UNM-Los Alamos. The apartments are centrally located to The Family YMCA, shopping and dining areas, the Bradbury Science Museum, and the central business district. To be eligible, students must be enrolled in a minimum of six credit hours in a degree-seeking program or in a student-relate program with Los Alamos National Laboratory. Rates range from \$420-\$550 per month depending on length of contract and student status and are subject to changes. Rates are subject to adjustment with appropriate notice. Applications for Student Housing should

be accompanied by a \$50 deposit to be retained as a part of the security/ damage deposit. The total deposit is \$150, with the \$100 remainder due and payable when you accept the offered assignment. Tours of the housing facility are available through the UNM-LA Student Housing Office. For more information, call 662-0333 or (800) 894-5919, ext. 333 (toll-free in NM).

### **Bookstore**

The Campus Bookstore stocks all "REQUIRED" titles for UNM-LA Undergraduate, Graduate and Upper Division classes. "USED" books are available in limited quantities, as are textbooks listed by faculty members as "Optional." A complete list of texts, with prices, is available in the store each semester. Bookstore refund policies allow students to return books, for a full refund, to the store up to three weeks after the beginning of the fall and spring semester and two weeks for the summer semester. Books must be in original condition and accompanied by the receipt showing proof of purchase.

The bookstore conducts a textbook buy-back for three days at the end of the fall and spring semester and two days at the end of the summer semester. Contact the store for specific details. Texts purchased for Short Term and Community Education classes may only be returned for refund twenty-four hours after the beginning of the class. The Bookstore WILL NOT bill the Los Alamos National Laboratory for books and supplies purchased by employees. It is the responsibility of the employee to pay for all purchases.

A variety of supplies, gifts, and vending items are also available in the store. The Bookstore is located on the upper level of the Student Services Building.

### **Library**

The mission of the UNM-Los Alamos Library is to provide for the information needs of its students, faculty, and staff, and to contribute to the information resource base of the communities that it serves, through its resources (both traditional and electronic), services, staff, equipment, and facility.

The Library is located in the Learning Center (Building 1 East), and is a technologically advanced facility with 10 public computing stations providing electronic access to LIBROS (the online catalog), the World Wide Web, a variety of academic databases and other online reference sources, online collections of other libraries, and the Local Area Network server. The Library also houses a growing collection of books, periodicals, pamphlets, maps, instructional videos, and sound recordings.

The Library provides an inviting setting conducive to study, research, and the exchange of ideas. Changing art and book exhibits in the Library contribute to an aesthetically pleasing environment for all library visitors. The main floor of the Library offers a variety of comfortable study spaces appropriately dispersed throughout the facility, including carrels, study tables, group study rooms, computing stations, a periodical browsing area, and a reference resource area complete with additional carrels and a photocopier. A loft, upstairs from the main floor of the library, is a pleasant, airy space, which houses a distinctive Southwest Collection

and provides a quiet area for study and instruction.

For more information, link to the Library's website through the UNM-LA Homepage at: <http://www.la.unm.edu>.

### **Adult Learning Center**

The Adult Learning Center at UNM-Los Alamos provides basic educational services to adults with skills below 12.9 (twelfth grade, ninth month) ability as determined by standardized tests of adult skills. Classes and individualized instruction include reading, writing, math improvement, and English as a Second Language. Content areas include preparation for the GED and U.S. Naturalization examinations as well as for college preparation. These classes are offered in small group settings to persons over the age of eighteen. Persons sixteen to eighteen years of age may enroll with proof of high school withdrawal and with parental permission. Individual tutoring is provided as available for literacy training. Preparatory instruction for the Spanish GED is also offered, as is preparation for the TOEFL exam.

Books, materials, and individualized tutoring are free of charge to the ABE student. There is no charge or fee for the Adult Basic Education (ABE) classes.

### **Community Education**

UNM-Los Alamos offers non-credit, short-term courses of an informational, educational enrichment, and recreational nature. Whoever you want to be...whatever you want to do...whatever your career goals are...we do our best to help you get there! Courses are practical, time-sensitive, and user-friendly. Community Education has language programs, computer training, health education courses, in addition to many other areas of learning. CEU's are available for many courses.

Community Education also offers programs for children during the summer, including Children's College, a "campus day-camp" for first- through sixth-graders.

### **Technical and Customized Training**

The Customized Training Program at UNM-Los Alamos works with area businesses to design low-cost, specialized training that meets employers' needs and fits work schedules. Utilizing faculty resources from local, state and national pools, UNM-Los Alamos can design, develop, and deliver classes and certificate programs for the unique training needs of business or nonprofit/government organization at on-site or on campus to assist with identified training needs. Custom training is a cost-effective, targeted way to increase organizational effectiveness and enhance job skills and performance. The Customized Training Program also offers training through the New Mexico State Work Force Training Initiative.

### **Small Business Development Center**

The UNM-Los Alamos Small Business Development Center (SBDC) is part of a national and statewide network

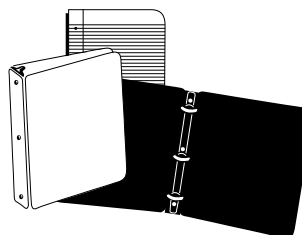
that provides training and counseling services for small and start-up businesses. The UNM-Los Alamos SBDC offers no-charge business assistance to any existing or aspiring small business in the community, including not-for-profits. Business counseling and most of the training classes occur off campus at the Los Alamos Small Business Center. Counseling sessions are also held in the Jemez Springs area. The SBDC currently serves about 180-200 counseling clients each year. Typical areas of assistance include business start-up and registration, planning and business planning development, customer service, marketing, business financing, incorporation, proposal preparation, employee issues, business computing, record keeping, regulatory issues, quality management, productivity issues and trade name searches.

### **Contract Training**

UNM-Los Alamos also offers contract training opportunities for northern New Mexico businesses and organizations. Through a training contract, the Los Alamos National Laboratory (LANL) and the University of New Mexico-Los Alamos are currently working together to provide state-of-the-art, up-to-date computer training to all lab and contract employees of LANL. This training contract provides desktop application training to increase these employees with job proficiency and career advancement opportunities. If any department at LANL identifies a particular need in their department that is not served by current course offerings (see website: <http://dat.la.unm.edu>) UNM-LA is able to work with them to design a course that meets their department's specific needs. LANL employees or contract employees for LANL, can call for further information at 662-0346 or register online at <http://dat.la.unm.edu>.

### **College Cornerstone Program**

The College Cornerstone program is designed to serve students by helping to strengthen their academic competencies as well as helping to ensure their successful transition into college-level degree programs. The program offers course placement evaluation for students and Introductory Studies credit courses to help students enter college at the most appropriate level. Both the Tutorial Center and the Library work in conjunction with College Cornerstone faculty members to help provide educational opportunities and academic strategies for student success.



## Undergraduate Admissions

### Admission

The University of New Mexico-Los Alamos admits all eligible applicants from New Mexico, other states and foreign countries. Because of the great diversity of the University's students, special application and admission procedures have been created to meet the needs of the different populations. UNM-Los Alamos serves recent high school graduates, transfer students, non-degree students, returning and nontraditional students.

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.)

1. Beginning Freshmen (no previous college work).
2. Transfer Students (last attended another institution).
3. Readmit students (students who stopped attending for three or more sessions).
4. Unclassified
5. Non-Degree Students (presently not seeking a degree).
6. Concurrent (high school)

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 UNM-Los Alamos for admission become the property of the University and will not be sent elsewhere or returned to the student.

### Use of Social Security Numbers

UNM-Los Alamos uses the individual student's social security number as the student identification number at the University. This number is used for internal record-keeping purposes only and is not disclosed to other parties for any purpose without written authorization from the student. The authority to use the social security number comes from the Board of Regents and was adopted on March 24, 1967, prior to the Federal Privacy Act of 1975. It is, therefore, mandatory that students disclose their social security number to the University for identification purposes.

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## Beginning Freshmen

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### Associate Degree Option

A student may enroll in one of several associate degree programs offered by UNM-Los Alamos. The admission requirements for admission in an associate degree are a high school diploma or equivalent and American College Test (ACT) scores. A passing score on the General Education Development (GED) is accepted in lieu of a high school diploma.

Entrance requirements beyond the minimum may be required. Information describing these requirements is available in the UNM-Los Alamos degree brochures at the UNM-Los Alamos Student Services Office and is also outlined in the section Undergraduate Curriculum and Course Descriptions of this catalog.

### Bachelor Degree Option

A student may enroll in the Undergraduate Studies Program while attending UNM-Los Alamos until the student has met the requirements for transfer to a specific UNM baccalaureate degree program.

#### *How to Apply*

1. Complete and return an application for admission and

a \$20.00 nonrefundable application fee to the Student Services Office. You may also apply over the Web at [www.unm.edu](http://www.unm.edu).

2. Request that your official American College Test (ACT) or Scholastic Aptitude Test (SAT) scores be mailed to the Student Services Office. (See additional information below.)
3. Request that your high school send an official transcript directly to the Student Services Office. If you have not yet graduated from high school, your transcript should include all courses completed, as well as those in progress and your high school rank in class. In most cases, admissibility can be based upon a partial transcript, subject only to your graduation from high school.

#### *When to Apply*

We strongly encourage students to apply as early as possible. The deadlines for receipt of all application materials are: fall semester — June 15; spring semester — November 15; summer session — May 1. Students are accepted for admission to most undergraduate colleges of the

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## Beginning Freshmen, continued

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University for the fall, spring and summer sessions. If you do not register for the session requested on your application and wish to postpone enrollment to a subsequent semester, you must notify the Student Services Office. Applications and fees are applicable for three consecutive sessions only. If you do not take advantage of admission and enroll within that period, a new application and fee are required.

### College Entrance Examinations

ACT results (UNM Code 2650) or SAT results (UNM Code 4845) must be filed by freshmen applicants, including transfers with fewer than 26 semester hours of transferable credit. The University recommends that the ACT or SAT be taken on a summer testing date following the junior year in high school. It is the student's responsibility to arrange for scores to be sent to the Student Services Office directly from the ACT or SAT Testing Center. Scores on transcripts or student copies do not satisfy this requirement.

### Admission Requirements (subject to change)

Freshmen applicants must be graduates of a high school accredited by a regional accrediting association, or by the state department of education or state university of the state in which the high school is located.

The minimum grade point average requirement for admission to bachelor degree programs at The University of New Mexico is a 2.25 (on a 4.00 scale) in all previous academic work from an accredited high school. Grades in all courses allowed toward high school graduation are computed in the average.

**In addition to the above requirement, the student must satisfy one of the following three sets of criteria:**

#### Criterion I

- Completion of the following 13 specific high school college preparatory units (two semesters of class work equals one year-long unit) with a minimum 2.25 GPA:
- Four units of English with at least one unit earned in the 11th or 12th grade in composition;\*
- Two units of a single language other than English;\*\*
- Three units of mathematics from the following list Algebra I, Algebra II, Geometry, Trigonometry, or higher mathematics;
- Two units of natural science (one of which must be a laboratory science in Biology, Chemistry or Physics); and
- Two units of social science (one of which must be U.S. History).

\*\*To meet the composition requirement, any English course taken during the junior or senior year of high school in which 50% or more of the curriculum emphasized correct and clear composition will be accepted. Speech courses will not satisfy the composition requirement; however, up to two semesters

of speech will be accepted in the remaining requisite English courses. While considered good augmentation to classic, liberal arts English, courses such as drama, journalism and yearbook will not be counted toward the four unit English requirement.

\*\* Exemption from the freshmen admission requirement for two years of a language other than English will be approved under these conditions:

Speakers of any or another language other than English that is offered by The University of New Mexico-Los Alamos will have the opportunity to test out on the basis of performance on a native speakers examination administered on campus by The University of New Mexico-Albuquerque language department. This examination will be available on an ongoing basis during early registration periods to accommodate the University's continuous admission policy.

Speakers of languages other than English will be eligible for exemption on the basis of certification of fluency in their native languages by an appropriate school or tribal official.

Students must request consideration on the basis of testing or exemption by arranging to have certification of proficiency sent directly to the Student Services Office.

#### Criterion II

Meet specified standards based on high school academic performance (high school class rank) and performance on standardized college entrance examinations (ACT or SAT).

ACT Composite in Combination With High School Class Rank **2.25 GPA.**

#### Enhanced ACT effective October 1989

- 18-20 Top 25% of Class
- 21-24 Top 50% of Class
- 25-28 Top 75% of Class
- 29 or higher No Rank Requirement

-or-

#### 2.25 GPA

SAT Total (V+M) in Combination with High School Rank Recentered SAT scores effective April 1995:

- 860-970 Top 25% of Class
- 980-1120 Top 50% of Class
- 1130-1270 Top 75% of Class
- 1280 or higher No Rank Requirement

#### Criterion III

A limited "Special Admissions" category. Students who do not qualify for admission under Criterion I or II may request "special consideration" through an appeal. A combination of quantitative and subjective factors are used in making these admission decisions.

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## Other Admission Opportunities

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### Certificate Option

Admission to UNM-Los Alamos certificate programs is open to those students who are 18 years of age or older or to those whose high school class has graduated. For those younger than 18 and without a high school diploma or GED, approval of parent, guardian, and/or school officials will be required. Please see Dual Enrollment Option. For students pursuing a certificate, each program may establish entrance requirements beyond the minimum.

### Unclassified Option

The purpose of this status is to accommodate students not otherwise covered by other classifications. Students in this category include those needing preparatory work and those with incomplete files. Students receiving federal or state financial aid, veteran's educational benefits, or scholarship awards are not eligible for this category.

### Home-School or Non-Accredited Schools

The University provides three options for admission for those students (minimum age 16) who have been home-schooled or attended non-accredited high school. All applicants must submit official ACT or SAT scores.

**Option I:** Minimum 2.25 high school cumulative grade point average, plus completion of the 13 specific high school college preparatory units with a minimum 2.25 GPA. (See Criterion I under beginning Freshman Admission Requirements.)

**Option II:** Completion of the General Educational Development (GED) Test. (See Admission by Examination.)

**Option III:** Submission of three SAT II subject tests, including one in English, one in Math and the third in either Social Studies, Natural Science or Foreign Language. A scale, similar to the one used for the GED, will be incorporated using combined percentile rank of the three SAT II scores and ACT or SAT composite scores.

### Admission by Examination

Applicants (minimum age 16) who have not graduated from high school may be considered for admission on the basis of the high school level General Educational Development (GED) tests. Students must also present ACT or SAT scores and must meet the following formula for admission.

GED Score	Required ACT Comp	Required SAT Comp
57 or higher	18–20	860–970
50–56	21–24	980–1120
45–49	25–28	1130–1270
40–44	29 or higher	1280 or higher

### Early Admission Option

UNM-Los Alamos will admit, on a full-time basis, a limited number of highly qualified applicants after completion of their junior year of high school. To be considered for early admission, the student must: 1) provide proof of parental consent; 2) have an exceptional record on a minimum of 15 units in a strong college preparatory program in an accredited high school; 3) have the unqualified recommendation of the principal or headmaster; and 4) have a score on the ACT or SAT satisfactory to the University. In most cases a personal interview with the Associate Director of Student Services is required before a decision is made.

### Dual Enrollment Option

This "honors" program permits highly qualified high school juniors and seniors to take UNM-Los Alamos courses while simultaneously attending high school or during the summer between the junior and senior years. This is a part-time status and should not be confused with Early Admission.

Meeting the criteria listed below does not mean that the student will be automatically admitted to the Dual Enrollment Program. In all cases the Associate Director of Student Services will make the final admission determination.

1. The student must be a high school junior or senior with an expected graduation date within one calendar year.
2. The student must have the certification and unconditional recommendation of the high school as well as proof of parental consent prior to participation.
3. The high school must furnish the Student Services Office with an official high school transcript.
4. Minimum quantitative requirement (one or more of the guidelines listed below):
  - a. Class rank in top 25%.  
-or-
  - b. Cumulative grade point average of 3.00 or better on a 4.00 scale for 9th, 10th and 11th grades in subjects counted toward graduation.  
-or-
  - c. An ACT composite score of 2 or or an SAT total score of 1060.
5. A student planning to enroll in English 101 must have a minimum score of 19 on the English portion of the ACT or 450 on the verbal portion of the SAT.
6. A student planning to enroll in any math course numbered above Math 120 must have a minimum score of 22 on the Math portion of the ACT or 510 on the quantitative portion of the SAT.

### Dual Enrollment –VOTE Program

UNM-Los Alamos offers a dual enrollment program for students who wish to explore occupational options. This

Vocational, Occupational, and Technical Education program is available for currently enrolled high school juniors and seniors. Eligible students **must have** a minimum GPA of 2.0 and have the approval of one parent or legal guardian and high school counselor. Students may enroll in no more than seven (7) credit hours per semester or three (3) credit hours during the summer session and are restricted to UNM-Los Alamos courses which have a ‘T’ suffix. At registration, the student should submit the following items to the Student Services Office for approval:

- Completed Dual Enrollment VOTE Application
- Completed Dual Enrollment recommendation form with signature of student, counselor, principal, and parent or guardian
- An official high school transcript

Once approved, the student is eligible to register during regular registration periods. Students should check with their particular high schools as to whether individual high

schools will accept the VOTE courses toward graduation requirements. The \$20 application fee is not required for dual VOTE enrollment.

### ***Introductory Studies Courses***

Even though a student is qualified for admission to the University, he or she may be required to take one or more Introductory Studies courses. These courses are designed to strengthen a student’s preparation for university-level work in areas of demonstrated weakness. Required enrollment in these courses is based upon established minimum standards of performance on individual tests on the ACT or SAT. Students required to take these courses should do so in their first semester(s) at UNM-Los Alamos and they must do so before they are eligible to proceed to other courses in those areas or to enroll in a degree granting college.

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## **Transferring Students**

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### ***How to Apply***

1. Complete and return an application for admission and a \$20.00 nonrefundable application fee to the Student Services Office. You may also apply over the Web at [www.unm.edu](http://www.unm.edu).
2. Request that each college you have attended send an official transcript directly to the Student Services Office. A summary on one transcript of work at several colleges is not sufficient. If you are applying for the next academic session at UNM-Los Alamos while still enrolled at another institution, the official transcript must include a listing of courses in progress, as well as all completed work. (See note below.)
3. If you are transferring to UNM-Los Alamos with fewer than 26 semester hours of accepted college work, you are considered a freshmen transfer and must submit the following materials:
  - Official scores from the American College Test (ACT) or the Scholastic Aptitude Test (SAT) sent directly from ACT Records, P.O. Box 451, Iowa City, Iowa, 52243; or from SAT, Admissions Testing Program, College Entrance Examination Board, Box 592-A, Princeton, New Jersey, 08541.
  - A complete official transcript of high school work or official GED scores.

**Applications will not be processed until all the required items are on file with the Student Services Office.**

To allow students at other institutions to make definite plans for transfer, a determination of admission status may be made before courses in progress are completed, subject only to receipt of the final transcript. Students permitted to register prior to receipt of their final transcripts may be disenrolled if their transcripts do not reach the Student Services Office within three weeks after the beginning of classes.

**NOTE:** The student must indicate on the application all previous college attendance. Applicants may not ignore any college attendance, even though they may prefer to repeat all courses. Students found guilty of nondisclosure or misrepresentation in filling out admission application forms, or who find after admission or enrollment that for academic or other reasons they are ineligible to return to their last institution but fail to report this immediately to the Student Services Office, are subject to disciplinary action, including possible dismissal from the University.

### ***When to Apply***

We strongly encourage students to apply as early as possible. The deadlines for receipt of all application materials are: fall semester — June 15; spring semester — November 15; summer session — May 1. Students are accepted for admission to most undergraduate colleges of the University for the fall, spring and summer sessions. If you do not register for the session requested on your application and wish to postpone enrollment to a subsequent semester, you must notify the Student Services Office. Applications and fees are applicable for three consecutive sessions only. If you do not take advantage of admission and enroll within that period, a new application and fee are required.

### ***Admission Requirements***

The minimum requirement for admission as a transfer student to UNM-Los Alamos is a grade point average of “C” (2.00) in all transferable college work attempted. However, most degree granting colleges of the University require a higher average for the acceptance of transfer students (see the appropriate sections of this catalog and the UNM catalog for specific requirements).

For determining admission, all repeated courses will be

computed in the transfer grade point average. UNM-Los Alamos operates on a semester credit calendar. Therefore, classes from quarter system institutions will be recalculated to semester hours (one quarter hour equals .66 semester hour). Applicants with fewer than 26 transferable hours are considered transferring freshmen and must therefore submit high school credentials and meet freshmen admission requirements (see Beginning Freshmen above).

### Previous Suspension

A student **under academic suspension** from another college or university may not enter UNM-Los Alamos during the term of suspension. In cases of unspecified suspension periods, the University's suspension term will apply. Upon termination of the suspension, the student is eligible to request special consideration for admission to UNM-Los Alamos.

In general, students **under disciplinary suspension** are not admitted to UNM-Los Alamos. However, because the reasons for disciplinary suspension vary among institutions, a student may be suspended from one school for infractions that would not be actionable at another. Therefore, UNM-Los Alamos reviews such cases individually and, when justified, makes exceptions and allows the student to be considered for admission.

### Transfer of Credits

UNM-Los Alamos evaluates without prejudice courses from postsecondary institutions that are regionally accredited or are candidates for regional accreditation. Transfer students will receive full credit for course work completed with a minimum grade of "C," provided the classes are similar or equivalent to courses offered at the University. (Transferable courses with grades of "D" from New Mexico state institutions are accepted.)

UNM-Los Alamos does not accept technical/vocational, remedial, personal development or dogmatic religion courses. Credit is not awarded for work or life experience, cooperative education or for courses from out-of-state in which the grade received was lower than "C."

Grades earned in courses taken at other institutions are not included in calculation of the UNM grade point average. This grade point average will reflect only classes taken at UNM.

### 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 in transfer courses taken within approved modules of lower-division course work 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 year.

### 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 select courses carefully so that they may 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 assure that all pre-transfer course work will meet the requirements of the desired degree.

### Transferable Lower-Division General Education – Common Core

*Students enrolling for first-year study who have not yet selected either an academic focus or the institution where they wish to graduate, are advised to take courses during their freshman year outlined in the Lower Division General Education Common Core.* For students enrolled at any public institution in New Mexico, the following courses are guaranteed to transfer to any other New Mexico public college or university and apply toward associate and baccalaureate degree program requirements. Students should consult advisors at their current institution regarding which specific courses fit these categories. Students preparing for careers in engineering, health sciences or other profession related fields are advised that some of this course work may not transfer toward general education requirements but in most cases will apply toward elective requirements.

<b>Area I: Communications</b>	<b>9 semester hours</b>
(a) College-Level English Composition	3-4 hrs.
(b) College-Level Writing	3 hrs.
(a second course building on the above)	
(c) Oral Communications	3 hrs.
<b>Area II: Mathematics and Statistics</b>	<b>9 semester hours</b>
(a) College Algebra	3 hrs.
(b) Calculus	3 hrs.
(c) Other College-Level Mathematics and Statistics	3 hrs.
<b>Area III: Laboratory Science</b>	<b>8 semester hours</b>
(a) General Biology w/lab	4-8 hrs.
(b) General Chemistry w/lab	4-8 hrs.
(c) General Physics w/lab	4-8 hrs.
(d) Geology/Earth Science w/lab	4-8 hrs.
(e) Astronomy w/lab	4-8 hrs.
<b>Area IV: Social/Behavioral Sciences</b>	<b>6-9 semester hours</b>
(a) Econ. (macro or micro- economics)	3 hrs.
(b) Introductory Political Science	3 hrs.
(c) Introductory Psychology	3 hrs.
(d) Introductory Sociology	3 hrs.
(e) Introductory Anthropology	3 hrs.

<b>Area V: Humanities and Fine Arts</b>	<b>6-9 semester hours</b>
(a) Introductory History Survey	3 hrs.
(b) Introductory Philosophy	3 hrs.
(c) Introductory Course in History, Theory or Aesthetics of the Arts or Literature	3 hrs.
<b>Totals to be selected</b>	<b>35 semester hours</b>

### 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 advisors at their current institutions regarding which specific classes fit these categories. Lower division transfer modules presently exist for:

<b>Business</b>	<b>Biological Sciences</b>
<b>Engineering</b>	<b>Teacher Education</b>

Modules for additional areas of study are being developed. Copies of these Transfer Modules may be obtained from the Student Services Office.

### 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 more current and detailed advice to guide their course selection. Formal published transfer guides between The University of New Mexico and Albuquerque TVI, Clovis Community College, Diné College, Eastern New Mexico University-Roswell, Mesa Technical College, New Mexico Junior College, New Mexico Military Institute, New Mexico State University-Alamogordo, Carlsbad and Grants, Northern New Mexico Community College, San Juan College and Santa Fe Community College are available in The University of New Mexico Admissions Office and on the Web at [www.unm.edu](http://www.unm.edu). The university is in the process of developing transfer guides for the remaining New Mexico two-year institutions.

### Complaint Procedure for Transfer Students

All New Mexico public post-secondary institutions are required to establish policies and practices for receiving and resolving complaints from students or from other complainants regarding the transfer of course work from other public institutions in the state. A copy of The University of New Mexico's complaint policy may be obtained from the Admissions Office or from the New Mexico Commission on Higher Education, 1068 Cerrillos Road, Santa Fe, NM 87501-4295, (505) 827-7383 ([www.nmche.org](http://www.nmche.org)).

### Evaluation of Credit

The evaluation of credit is ordinarily part of the admissions application procedure. It is a two-step process. An Admissions Officer first evaluates credits on a course-by-course basis to determine general transferability to the University, and a transfer evaluation is produced for students who are admitted. (Students who have completed courses in institutions utilizing non-traditional credit or grading systems may be required to provide additional information to facilitate the evaluation.) The evaluation is then mailed to the student, who must contact an academic advisor in the college of the desired major in order to determine how the transferred courses will be applied to a degree.

### Alternative Credit Options

UNM-Los Alamos grants college credit for certain outside training, courses and examinations. In all cases, students must be enrolled in undergraduate degree status. The guidelines for each of these programs are as follows:

#### Technical Credit

Under special circumstances, students may receive credit for technical courses that are not normally transferable to UNM-Los Alamos. Students who have earned technical credit which they believe may be applicable to their specific degree programs can request a review of that credit by the department chairperson or program director. An interview or demonstration of competence, or both, may be required before a decision regarding credit is made. Acceptance of technical credit is binding only to the specific department or program recommending the credit.

#### Training Credit

Credit for non-collegiate training programs is granted based on recommendations of the American Council of Education's "National Guide to Educational Credit for Training Programs" and institutional policies. Official records must be supplied to the Student Services Office by the appropriate source.

#### Military Credit

Credit for military service is granted based on recommendations of the American Council of Education's "Guide to the Evaluation of Educational Experiences in the Armed Service" and institutional policies. No credit is granted for Military Occupational Specialty (MOS).





## College Board Advanced Placement Program

### CEEB Advanced Placement Program

Students who took advanced placement courses in high school and earned a score of three or higher on the exam, may be eligible for college credit. Score reports must be sent from the College Board directly to the Student Services Office. Placement and credit is awarded by department for scores as follows:

#### Advanced Placement Exam

	Score	Equivalent UNM course	Credit Granted (sem hrs.)
<b>Art</b>			
Art Hi	3, 4	Art Hi 101	3
	5	Art Hi 201 & 202	6
Art St	3, 4, 5	Dept. Review**	—
<b>Biology</b>			
Biol	3, 4, 5	Biol 121L & 122L	8
<b>Chemistry</b>			
Chem	3	Chem 121L & 122L	8
	4, 5	Chem 131L & 132L	9
<b>Computer Science</b>			
C S A	5	C S 151L Sub. to Dept. Review**	3
C S AB	4, 5	C S 151L	3
	5	C S 251L Sub. to Dept. Review**	3
<b>Economics</b>			
Macro Econ	4, 5	Econ 105	3
Micro Econ	4, 5	Econ 106	3
<b>English</b>			
Engl Lang			
-or- Engl Lit	4	Engl 101	3
Engl Lang -or-			
Engl Lit	5	Engl 101 & 102	6
Engl Lang -and-			
Engl Lit	5	Engl 101 & 102 & 150	9
<b>Environmental Science</b>			
Env Science	3	Env Sc 101 & 102 & 150	9
<b>History</b>			
Euro Hist	4,5	Hist 102L	3
U.S. Hist	4	Hist 161L & 162L	6
World Hist	4	Hist 101L & 102L	6
<b>Languages</b>			
French Lang	3	French 101, 102, 201, 202	12
	4	French 101, 102, 201, 202, 301	15
	5	French 101, 102, 201, 202, 301, 302	18
French Lit	3	French 101, 102, 201, 202	12
	4	French 101, 102, 201, 202, 351	15
	5	French 101, 102, 201, 202, 351, 352	18
German Lang	3, 4, 5	German 101, 102	6
Latin	3	Latin 101, 102	6
	4, 5	Latin 101, 102, 201, 202	12
Span Lang	3	Span 101, 102	6
	4, 5	Span 101, 102, 201, 202	12
Span Lit	4	Span 302	3
	5	Span 301, 302	6

#### Advanced Placement Exam

	Score	Equivalent UNM course	Credit Granted
<b>Math</b>			
Calc AB	3, 4, 5	Math 162L	4
Calc BC	3, 4, 5	Math 162L & 163L	8

### Physics

Physcs B	3	Dept. Review**	6
	4, 5	Physcs 151L, 152L	8
<b>Physcs C</b>			
Elec & Magn	3	Dept. Review**	6
	4, 5	Physcs 161L, 262L*	8
Mech	3	Dept. Review	6
	4, 5	Physcs 160L, 161L	8

### Political Science

Amer Gov	3, 4, 5	Pol Sci 200	3
Compar Gov	3, 4, 5	Pol Sci 220	3

### Psychology

Psych	3, 4, 5	Psych 105	3
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\* Conditional upon completion of special thermodynamics exam.

\*\* College Board retains student exams for only six months.

### College Level Examination Program

The University participates in the College Level Examination Program (CLEP) administered by the College Board. UNM-Los Alamos grants credit to newly admitted and regularly enrolled (in undergraduate degree status) students who achieve passing scores on the CLEP exams listed below, as approved by the appropriate University of New Mexico academic departments. For all of these CLEP Examinations, the total semester hours to be accepted towards a student's degree are at the discretion of the pertinent degree-granting college. Therefore, students should contact their college advisors for specific information. No credit is granted for Subject Exams not listed. Students should be aware the CLEP Examinations are intended for people with clear strengths in an area. **IMPORTANT:** There is a 6-month waiting period before repeating a test.

### CLEP Computer Based Testing (CBT)

As of July, 2001, the College Board is introducing Computer Based Testing for the CLEP and has adjusted the scoring. The scores that follow will list the minimums for both the paper (taken prior to July 2001) and CBT testing formats.

### General Examinations

The University grants credit for qualifying scores on the CLEP General Exams provided the student takes the exam before earning 26 semester hours of acceptable college credit. General credit hours are allowed as follows:

#### CLEP

General Exam	Scores Paper	CBT	UNM Course	Sem Year Hrs. Taken
Engl Comp	500	—	Gen Credit	6 Prior to 1978
Engl Comp	610	—	Gen Credit	6 1978 to 1985
Engl Comp	500	50	Gen Credit	6 1986-present

#### CLEP

General Exam	Scores Paper	CBT	UNM Course	Sem Year Hrs. Taken
Engl Comp with essay	500	50	Engl 101	3
(given only in January, April and October)			Gen Credit	3
Social Sci & Hist	500	50	Gen Credit	6
Natural Sci	500	50	Gen Credit	6
Humanities	500	50	Gen Credit	6

## CLEP Subject Examinations

### CLEP

Subject Exam	Scores Paper CBT	Equivalent UNM Course	Sem. Hrs.
College Math	570 57	Gen Credit	6
Amer Hist I	— 55	Hist 161L	3
Amer Hist II	— 55	Hist 162L	3
Biology	450 50	Biol 110	3
Chemistry	520 53	Chem 121L, 122L	8
Intro Macroecon	490 54	Econ 105	3
Intro Microecon	470 54	Econ 106	3
Western Civ I	500 55	Hist 101	3
Western Civ II	599 55	Hist 102	3
Amer Govt	550 65	Pol Sc 200	3
Human Growth & Develop	520 63	Psych 220	3
Princ of Mgt	500 54	Mgt 113	3
Princ of Acct	500 54	Mgt 202	3
Princ of Mkt	500 54	Mgt 222	3
Coll Alg	560 59	Math 121	3
Trig	610 65	Math 123	2
Calculus	510 70	Math 162	4
French Lang	400 48	French 101	3
French Lang	450 52	French 101, 102	6
German Lang	390 63	German 101, 102	6
Spanish Lang	390 45	Span 101	3
Spanish Lang	440 50	Span 101, 102	6

Spanish Lang.	540 57	Span 101, 102, 201, 202	12
Introductory Soc	520 59	Soc 101	3
Intro. Psych	550 56	Psych 105	3

### CLEP Subject and General Examinations

Students wishing to take one or more CLEP examinations may obtain registration forms at The University of New Mexico Testing Division, University College Building, Room 2, (505) 277-5345.

In some cases, The University of New Mexico requires original transcripts of test results sent from CLEP, Box 1821, Princeton, NJ 08543. Non-specific credit for these examinations appearing on transcripts from other colleges will not suffice.

The University of New Mexico grants credit based on minimum scores on the IB exams. Contact the Student Services Office for details.

### Dual College Enrollments

Prior to enrolling concurrently in residence or by extension or correspondence in another collegiate institution, students should verify with the Student Services Office and their college advisors to ensure acceptance of the transfer credits.

## Readmitted Students

### How to Apply

A UNM-Los Alamos degree-seeking student who stops attending for three or more sessions, including summer, must file an application for readmission. You may also apply over the Web at [www.unm.edu](http://www.unm.edu). The application fee is not required.

1. Complete and return an application for readmission.
2. If you attended another institution while away from UNM-Los Alamos or have taken college level correspondence or extension courses, request that each college you have attended send an official transcript directly to the Student Services Office. A summary on one transcript of work at several colleges is not sufficient. If you are applying for the next academic semester at UNM-Los Alamos while still enrolled at another institution, the official transcript must include a listing of courses in progress, as well as all completed work. Applications will not be processed until all the required items are on file with the Student Services Office.
3. Readmissible students with fewer than 26 semester hours or undecided about their major will ordinarily enroll in an associate degree program. Students with more than 26 semester hours, with an area of interest or a definite major in mind should refer to the appropriate program section of the catalog.
4. Students who have been suspended or dismissed as the result of disciplinary problems shall not be readmitted to the University without a required interview with the Associate Director of Student Services. The University reserves the right to refuse any student readmission on the basis of his or her student history, either academic or disciplinary.

### When to Apply

We strongly encourage students to reapply as early as possible. Deadlines for readmission vary according to your previous academic status or the college you wish to enter. Contact the Student Services Office for specific dates. If you do not register for the session requested on your application and wish to postpone enrollment to a subsequent semester, you must notify the Student Services Office. Applications are applicable for **three consecutive sessions** only. If you do not take advantage of admission and enroll within that period, a new application is required.



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## Non-Degree Credit Program

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The Non-Degree credit program allows students to earn academic credit without being admitted into a degree-granting unit. This program accommodates non-traditional students who wish to begin taking academic courses at UNM-Los Alamos without taking college entrance exams; those who missed the degree status deadline; and those who wish to take academic courses to prepare for graduate studies, career changes or for professional and/or personal development. Non-Degree status is recommended for visiting students from other institutions. All Non-Degree students, including those attending the Albuquerque and branch campuses, are under the administration of the Dean of the Division of Continuing Education.

### ***How to Apply***

Complete and return a non-degree admission application and a \$10.00 fee to:

Registrar  
UNM-Los Alamos Student Services Office  
4000 University Drive  
Los Alamos, NM 87544

The Non-Degree application may also be downloaded from The University of New Mexico Web site at [www.unm.edu/~ndc/](http://www.unm.edu/~ndc/).

### ***When to Apply***

Students are encouraged to submit their applications as early as possible. If you do not register for the session requested on your application and wish to postpone enrollment to a subsequent semester, you must notify the Student Services Office. Applications are applicable for three consecutive sessions only. If you do not take advantage of admission by enrolling within that period, a new application and fee are required.

### ***Admission Requirements***

You must be 21 years of age or older or if you are under 21:

- a. Your high school graduating class must have been out of school for at least one full year;
- or-
- b. If you earned your diploma by the GED exam, your graduating class must have been out of high school at least one year.

### **NOTES:**

1. Students in Non-Degree status are not eligible to receive financial aid. Contact the Financial Aid Office at (505) 662-0341 for details.
2. Veterans planning to attend the University under one of the public laws governing veterans' educational benefits and who are seeking admission to Non-Degree are required to have special approval from the Financial Aid Office (505) 662-0341.

The following students are not eligible for Non-Degree status:

1. A student who is under disciplinary or academic suspension from UNM-Los Alamos or any other collegiate institution.
2. A student who has exhausted his or her eligibility in University College and is not academically eligible to enter a degree-granting college at The University of New Mexico.
3. A student who has not completed a degree and was previously enrolled in degree status in an undergraduate college at The University of New Mexico.
4. A student from another country who is in the United States on a student visa.
5. A student who has been refused admission to degree status.
6. A student planning to receive student financial aid.

Applicants for Non-Degree status are required to certify that they are not under suspension from any college or university. Students found guilty of nondisclosure or misrepresentation in filling out the admission application form or who after admission or enrollment at UNM-Los Alamos are found to be ineligible for academic or other reasons to return to the last institution attended and fail to report this immediately to the Student Services Office, will be subject to disciplinary action, including possible dismissal from the University.

### ***Facts about Non-Degree Status***

1. A one-time \$40.00 application fee is required.
  2. No transcripts of previous high school or college work are required for admission.
- NOTE:** A transcript may be required to determine fulfillment of prerequisite course work.
3. There is a 30 credit hour limit in Non-Degree status if you do not have a baccalaureate degree. There is no limit for students with a baccalaureate degree.
  4. If you are in Non-Degree attempting to take graduate classes to transfer to a graduate degree:
    - a. You must check with the departmental advisor to verify the number of credits you may transfer from Non-Degree to a graduate program and that you are taking the appropriate courses for your intended plan of study.
    - b. To obtain graduate credit for a 300- or 400-level course, a Graduate Credit Authorization (GCA) form for each course must be filled out and signed by the instructor. This must be turned in at the Student Services Office by the published deadlines. If this card is not submitted, you will not be granted graduate credit. Courses numbered 500 or higher automatically carry graduate credit.
  5. Credits earned in Non-Degree are recorded on a

University of New Mexico permanent record. Credits may be applied to an undergraduate plan of study, if the courses meet specific degree requirements.

6. If you are planning to take education courses, you must contact the College of Education at (505) 277-3190 concerning requirements.
7. Non-degree students applying for undergraduate degree status must follow admission procedures and provide all items required of transfer students (see Transferring Students).

### Academic Standards

Students in Non-Degree are subject to all University regulations governing registration, attendance, academic standing and satisfactory completion of prerequisite courses. The Albuquerque campus Non-Degree Student Services Office governs academic standing and maintains college records for all Non-Degree students, including those at branch campuses and Extended University sites.

### Non-Degree Status Limitations

Students without a baccalaureate degree may earn no more than 30 semester credit hours in non-degree status. No undergraduate college of the University will accept in a degree program more than 30 semester hours earned while the student is in non-degree status nor is a college obligated to accept any hours earned in non-degree status that do not fulfill college degree requirements. If degree status is not attained prior to earning 30 semester hours, the student will be allowed to register in courses in non-degree status as an auditor only, receiving no credit.

Normally a non-degree student may not enroll for more than 9 semester hours during a regular session without special permission. Contact the Non-Degree Student Services Office at (505) 277-6089 to discuss enrollment limitations

and options. This limitation does not apply to a student who has earned a baccalaureate or higher degree nor to a visiting student. The senior residence requirement cannot be met by enrolling in non-degree status. This can be accomplished only by enrolling in a degree-granting college of the University.

A non-degree student who does not have a baccalaureate or equivalent degree may not enroll in 500-600 level courses. Non-degree students normally may enroll only in undergraduate credit offerings. In some cases graduate credit course work earned while in non-degree may apply to a graduate degree. Contact the specific department for details.

### Non-Degree Student Services Office

The Non-Degree Student Services Offices (NDSSO) is located at The University of New Mexico Continuing Education Complex: 1634 University Boulevard NE South Building, Room 125 and 126.

Phone: (505) 277-6089

FAX: (505) 277-4413

Toll Free: 1-877-797-8203

E-mail: ndsso@unm.edu

The NDSSO provides the following services for Non-Degree students:

- Non-Degree Admission
- Academic Advisement
- Career Guidance
- Registration Assistance
- Student Accounting (receipt of financial payments)
- Math Placement Testing
- GED/SAT/ACT/GRE Practice Exams
- Career/College/Financial Aid Database
- Orientation Sessions for New Students
- Extended Office Hours (by appointment only)
- Referrals to Albuquerque Campus Services



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## International Students

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UNM-Los Alamos welcomes applications from international students who have earned distinguished academic records and have demonstrated English proficiency.

### Undergraduate Admission Requirements

#### 1. Secondary Education

Completion of the equivalent of an American upper secondary school education (approximately 12 years of formal education beginning at age six) as well as the appropriate diplomas and/or satisfactory results on leveling examinations.

#### 2. Academic Preparation

Strong academic preparation or a U.S. equivalent grade point average of 2.5 on a 4.0 scale (for freshman applicants) or 2.0 on a 4.0 scale (for transfer students).

#### 3. English Proficiency

If English is not the first language of the student or not the official language of the country, the student must submit results of the Test of English as a Foreign Language (TOEFL). The minimum required score is 520 on the paper test or 190 on the computerized test. Students who are academically admissible but whose TOEFL scores are below 520/190 may enroll in the intensive English program offered through The University of New Mexico Center for English Language and Culture (CELAC). (For additional information on this dual admission program, contact the Office of International Programs and Studies at e-mail [oips@unm.edu](mailto:oips@unm.edu) or <http://www.unm.edu/~oips/celac.html>.) Transfer students who have satisfactorily completed the equivalent of UNM-Los Alamos' two freshman English composition courses (Engl 101 and 102) at accredited U.S. institutions are not required to submit TOEFL scores.

#### 4. Financial Resources

All international applicants are required to submit documentation verifying adequate funding to meet study and living expenses while in the United States. A minimum amount of approximately \$25,000 U.S. dollars is required (based on 2002-03 rates). Proof of support includes a Certification of Financial Responsibility Form completed for all years of study and proof of funds available for the first year of study.

#### 5. Health Insurance

International students who attend UNM-Los Alamos and any dependents who may accompany them are required to have medical insurance as offered through The University of New Mexico. Students who demonstrate that they have equivalent health insurance policies may be granted waivers.

Any student entering the United States with a Form I-20 from a university other than The University of New Mexico must attend that university for a minimum of one semester before becoming eligible to transfer to The University of New Mexico or one of its branch campuses.

### When to Apply

Application Deadlines

Fall Semester — March 1

Spring Semester — October 1

Summer Session — January 1

Applications and all supporting credentials must be submitted by these dates. Only complete applications will be reviewed for admission.

### How to Apply

Required Documents:

1. Completed application form;
2. \$30.00 non-refundable application fee; (Must be in U.S. currency and paid by International Postal Money Order or certified check drawn on a U.S. bank.)
3. Evidence of English language proficiency; (TOEFL results must be sent directly to The University of New Mexico (code 4845) by Educational Testing Services, P.O. Box 6151, Princeton, NJ 08541-6151, USA. Phone (609) 771-7100.
4. Academic Records;  
In order to facilitate the admission decision, the University of New Mexico strongly recommends that students initially submit academic records to any member of the National Credential Evaluation Services ([www.naces.org](http://www.naces.org)). Students must still submit official transcripts to the University, but the English translations will not be required.

Students who do not utilize a credential evaluation service must have official grade reports (transcripts) and diplomas or certificates from each institution attended sent to the University of New Mexico. Students must submit original or officially certified copies. Notarized, faxed copies or photocopies of these documents are not acceptable. All documents must be submitted in both the original language accompanied by an official certified English translation. Certified copies must contain the original signature(s), stamps(s) or seal(s) of the issuing institution's designated official. Students who have no prior college or university credit must submit evidence of graduation from an acceptable secondary school and must be eligible for admission to a recognized university in their home countries.

**Note:** A student who wants any information concerning the applicant file released to any third party must submit a letter of authorization directly to the International Admissions Office. This release must include the student's name and signature.

#### Submit all documents to:

International Admissions  
Office of Admissions  
MSCO06 3720  
1 University of New Mexico  
Albuquerque, NM 87131-0001  
USA

**Note:** Students applying for graduate programs (beyond the bachelor's degree) must also submit all required documents (except secondary academic records) to the Office of International Admissions by the published deadlines.

# Undergraduate Admissions

## Undergraduate Advisement

All undergraduate students (including those in Unclassified and Non-Degree status) who are admitted to the University are required to see an academic advisor each semester of enrollment. The Student Services Office is responsible for applying the academic regulations of the University and providing academic advisement for these students in order to facilitate successful transition between programs and successful completion of degree requirements.

## Core Curriculum

The University has adopted a revised Core Curriculum as of Fall 2003 which all undergraduate students must complete as part of their baccalaureate program. It is highly recommended that those students wanting to pursue a baccalaureate degree after completion of a certificate or associate degree incorporate the core curriculum into their program of study. The Core consists of several groups of courses designed to enhance each student's academic capabilities. Its goal is to give all students at the University a grounding in the broad knowledge and intellectual values obtained in a liberal arts education and to assure that graduates have a shared academic experience. The required courses encourage intellectual development in seven areas of study: writing and communication; social and behavioral sciences; mathematical reasoning; scientific methods in the physical and natural sciences; the humanities; the fine arts; and languages. The Core consists of lower-division courses that develop these skills and abilities and students are strongly encouraged to complete the program early in their college careers. Individual student substitutions should be minimal and are discouraged. Except where noted (see "Alternative Credit Options" in the Undergraduate Admissions section of the Catalog) students may apply AP or CLEP credit to the Core requirements.

**Departments and colleges may restrict student choices within the Core to meet departmental and college degree requirements. A grade of C (not C-) is required in all courses used to fulfill the requirements of the Core Curriculum. Courses taken CR/NC can be applied to the core, subject to general University and individual college and department regulations on the number of credits that can be taken CR/NC and the applicability of courses taken CR/NC to the individual degree.**

The University recognizes, however, that the highly structured nature of many degree programs and the presence of numerous transfer and non-traditional students requires flexibility on its part. Transfer and reentering students will receive advising in the college

and department to which they are admitted in order to establish the appropriate program which will meet their needs and the aims of the Core. Approval of substitutions or exceptions is handled on a department and college basis.

The basic program requires approximately 37 hours of courses in seven areas of study.

1. Writing and Speaking (9 hours): English 101 and 102 and an additional course chosen from English 219, 220; Communication and Journalism 130; Philosophy 156.
2. Mathematics: One course chosen from Math 121, 129, 150, 162, 163, 180, 181, 215, Stat 145.
3. Physical and Natural Sciences: Two courses, one of which must include a laboratory chosen from: Anthropology 150 and 151L, Astronomy 101; Biology 201 and 201L; Chemistry 111L, 121L or 131L, 122L or 132L; Earth & Planetary Sciences 101 and 105L, 201L; Environmental Science 101; Geography 101 and 105L; Natural Sciences 261L, 262L, 263L; Physics 102L, 151L, 152L, 160L, 161L.
4. Social and Behavioral Sciences (minimum 6 hours): Two courses chosen from: American Studies 182, 185; Anthropology 101, 130; Economics 105, 106; Geography 102; Linguistics 101 (AOA Anthropology 110); Political Science 110, 200; Psychology 105; Sociology 101.
5. Humanities (6 hours): Two courses chosen from American Studies 186, Classics 107, 204, 205; Comparative Literature and Cultural Studies 223, 224; English 150, 292, 293; Foreign Languages (M Lang) 101; History 101, 102, 161, 162, Philosophy 101, 201, 202; Religious Studies 107.
6. Foreign Language (non-English language; minimum 3 hours): One course chosen from any of the lower-division non-English language offerings of the Departments of Linguistics, Spanish and Portuguese, and Foreign Languages and Literatures.
7. Fine Arts (minimum of 3 hours): One course chosen from: Art History 101, 201, 202; Dance 105; Media Arts 210; Music 139, 140; Theatre 122. Students may elect to take one 3-hour studio course offered by the Departments of Art and Art History, Music, Theatre and Dance, and Media Arts to fulfill this requirement.

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## Graduation Requirements

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### Bachelor Degrees

Graduation from The University of New Mexico is not automatic. Application for candidacy for graduation is required. Each college may have differing deadlines for degree application. Students anticipating graduation should make arrangements well in advance with their college.

Candidates for an undergraduate bachelor degree must meet the following University minimum degree requirements and are subject to the following University limitations:

1. Students must be admitted to The University of New Mexico college from which the degree is awarded at the time of graduation.
2. A minimum of 128 semester hours of earned credit is required.
3. Completion of the University Core Curriculum.
4. Residence credit requirement: A minimum of 30 semester hours of credit, exclusive of extension and correspondence (independent study) credit, must be earned at The University of New Mexico. Of these 30 semester hours in residence, 15 semester hours must be earned after the candidate has accumulated 92 hours of earned semester hour credit; these 15 hours, however, do not necessarily have to be the last hours of a degree program. A student may fulfill all or part of this residence requirement by attending summer session.
5. The student must have a minimum cumulative grade point average of 2.0.
6. The student must demonstrate a minimum competence in English writing by passing Engl 102 with a "C" or better or attaining a suitable score on an authorized proficiency test prior to graduation. Students exempt from taking Engl 101 and students who receive a grade of B- or higher in Engl 101 or its equivalent at another institution, may choose to satisfy the minimum competence in English writing requirement through the Writing Proficiency Portfolio program administered in the English Department.
7. A maximum of 24 semester hours of pass/fail (CR/NC) grading option courses may be applied toward a bachelor degree.
8. A maximum of 40 semester hours of extension and correspondence (independent study) credit may be applied toward a bachelor degree and no more than 30 of these hours may be correspondence credit.
9. Students must contact their college office prior to their last semester in order to initiate and complete the graduation process.
10. Major and minor residence requirements: at least one-half of the minimum number of credit hours required for major study and one-fourth of the minimum for minor study must be class or laboratory work earned in residence at The University of New Mexico. A senior transfer student may satisfy this requirement

with the approval of the major department with at least one fourth of the total minimum hours required for the major. Most colleges will not accept Introductory Studies courses or "T" courses to satisfy any of these requirements.

11. Students will not be permitted to graduate if they have unresolved incomplete grades on their academic record. It is the student's responsibility to resolve any and all incomplete grades by the published ending of the semester in which they are graduating.
12. Once a student has completed academic requirements for a degree (certificate, associate, baccalaureate, master's, Ph.D.) and has received their diploma and appropriate notations on their official transcript, no modification of their academic record leading to that degree will be made by The University of New Mexico.

Additional degree requirements for a specific bachelor's degree will be found in the appropriate college section of the UNM catalog.

### Associate Degrees

Candidates for associate degrees offered by any of The University of New Mexico's colleges or branches must meet the following minimum degree requirements and are subject to the following University limitations:

1. A minimum of 60 acceptable semester hours must be earned. Technical work (up to the limit specified below) may be included in these 60 hours, upon approval of the appropriate degree-granting college.
2. A minimum of 15 semester hours must be earned in residence at The University of New Mexico, exclusive of extension and correspondence credits. The remainder may be acceptable transfer credits earned at fully accredited institutions of higher learning and/or at regionally accredited technical-vocational institutions (see also Transferring Students for transfer credit regulations).
3. Of the 60 hour minimum, no more than 9 semester hours may be earned by extension or correspondence.
4. The student must have a cumulative grade point average of at least 2.00.
5. Introductory Studies 100-level courses may not be used to satisfy any of the above requirements.

### Certificates

Candidates for certificates offered by any of The University of New Mexico's colleges or branches (except EMT) must meet the following minimum requirements and are subject to the following University limitations:

1. A minimum of 30 acceptable semester hours must be earned. Technical work (up to the limit specified below)

may be included in these 30 hours upon approval of the certificate-granting program.

2. A minimum of 15 semester hours must be earned in residence at The University of New Mexico-Los Alamos.
3. Of the 30 hours minimum, no more than 6 semester hours may be earned by extension or correspondence.
4. The student must have a cumulative grade point average of at least 2.00.

### **Second Undergraduate Degree**

The student seeking a second baccalaureate degree must apply for and meet admission criteria for that degree. To obtain a second bachelor's degree the student must successfully complete a minimum of 30 additional hours beyond the requirements for the first degree and must meet all degree requirements of the second degree, including residence requirements.

The degree of Bachelor of University Studies may not

be used as a second undergraduate degree. Completion of a second major under a Bachelor of Arts or Bachelor of Science program is recorded on the student's permanent record but as a second major. A second degree is not awarded.

A student who has completed a baccalaureate degree and who is seeking a second undergraduate degree will be evaluated by the new degree college in accordance with the hours and requirements completed toward the new degree. Residence credit requirements for the second degree will be determined on the same basis as those for the first degree.

### **Second Certificate/Associate Degree**

A second certificate or a second associate degree will not be granted until a student has earned a minimum of 15 semester hours in residence above the requirements for the first certificate or degree and fulfilled all requirements for the second certificate or degree including residence requirements.

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### **Cooperative Education**

The Cooperative Education and Internship program provides UNM-Los Alamos students from various academic disciplines with an opportunity to work in a field related to their major. The work should allow students to apply theories learned in the classroom to "real world" experiences. The work provides an opportunity to earn course credit.

More information on Cooperative Education is available from the Student Services Office located in the lower level of Building 2.

### **Catalog Requirements**

Undergraduate students may graduate under the requirements in the catalog issue in effect at the time of their admission into the college or school from which they are seeking a degree. If students transfer from one degree-granting college or program to another within the University, they must comply with the catalog requirements in effect at the time of their transfer.

Nonwithstanding the above, The University of New Mexico reserves the right to make changes in the curricula and degree requirements as deemed necessary, with the changes being applicable to currently enrolled students.

### **Readmission**

Students who interrupt their degree program and are not enrolled for three or more consecutive semesters (including Summer), must comply with catalog requirements in effect at the time of reenrollment.

### **Responsibility for Requirements**

Students are responsible for knowing the rules and regulations concerning graduation requirements and for registering in the courses necessary to meet them. Advisement at the specific department/program level as well as the college level is strongly recommended to assure timely graduation.

Students who take more than 10 years to graduate from the date of their original admission, must conform to the catalog in effect in the semester in which they intend to graduate.

### **Commencement**

Commencement exercises are held once per year, at the end of the spring semester. Attendance is optional. Students whose requirements were completed and degrees conferred in the preceding summer session, fall or spring semester are invited to attend.

### **Baccalaureate Honors**

Baccalaureate level students graduating from The University of New Mexico who have a minimum scholarship index of 3.50, and who have earned a minimum of 60 hours in residence are awarded Baccalaureate Honors. Designations of cum laude (3.5–3.74), magna cum laude (3.75–3.89) and summa cum laude (3.9–4.0) are awarded to graduates who meet the above criteria. Honors designations will be printed on the diploma and recorded on the permanent record. Baccalaureate Honors are automatically awarded. It is not necessary for students to apply for this category of honors. Only first baccalaureate degree candidates are eligible for graduation with honors.

### **National Student Exchange**

NSE offers UNM-Los Alamos students an opportunity for educational travel and study at more than 170 participating colleges and universities across the United States and its territories/commonwealths. NSE permits students to broaden their academic, social and cultural awareness by temporarily leaving the familiar atmosphere of hometown and home campus.

Participants must be full-time students with a minimum cumulative grade point average of a 2.50 and must have completed two semesters prior to exchange.

NSE students pay full-time tuition to The University of New Mexico before leaving for their host school. Most University



of New Mexico financial aid will apply for tuition. Expenses for room and board, transportation to and from the host campus, and incidentals are the responsibility of the exchange student. Information may be obtained from the NSE Office, Mesa Vista Hall, Room 3011, MSC006 3840. Telephone (505) 277-5321.

### Executive Director's List

UNM-Los Alamos students who demonstrate academic excellence are honored by inclusion in the Executive Director's List. Students are selected based on the following criteria:

1. Part-time students (6-11 hours) must complete a minimum of 6 undergraduate credit hours at UNM-LA with regular grading option in a given semester.
2. Full-time students must complete a minimum of 12 undergraduate credit hours at UNM-LA with a regular grading option in a given semester.
3. A semester Grade Point Average (GPA) of 3.5 is required.
4. No grade lower than a "C" (not "C-") is acceptable.
5. Students in Non-degree or Graduate status are ineligible for consideration.

### New Mexico/WICHE

(Western Interstate Commission for Higher Education) Since 1951, New Mexico has sponsored and sent students across state lines to receive professional education. The 13 western states have provided this service under terms of the Western Regional Education Compact, which has been adopted by the legislatures of all 13-member states and has been administered by the Western Interstate Commission for Higher Education.

New Mexico participates in 11 of the 15 disciplines offered through WICHE Professional Student Exchange. Certified New Mexico residents are eligible for funding support at WICHE-participating institutions in the fields of dentistry, veterinary medicine, occupational therapy, optometry, osteopathy, physician assistant, masters of physical therapy, podiatry, nursing, graduate library studies and public health. In addition, New Mexico receives WICHE students from the other compacting states in the fields of medicine, physical therapy, law, pharmacy and architecture.

## Student Services Information

### Records

The Student Services Office is responsible for the maintenance of the educational records at UNM-Los Alamos. This includes, but is not limited to, student transcripts, academic folders and faculty grade reports. The following information refers to some of the policies and procedures for educational records. Please Note: proper photo identification (driver's license, Lobo Card, passport or other state issue identification) is required for all in-person transactions.

### Use of Social Security Numbers

UNM-Los Alamos uses the individual student's social security number as the student's identification number at the University. This number is used for record-keeping purposes only. The authority to use the social security number comes from the Board of Regents and was adopted on March 24, 1967. It is, therefore, mandatory that students disclose their social security number to the University for identification purposes.

### Access to and Confidentiality of Student Records

*Family Educational Rights and Privacy Act (FERPA)  
November 19, 1974*

#### Student Record Policy

##### 1. Introduction

Under the Family Educational Rights and Privacy Act of 1974 (FERPA), students have the right to inspect and review most education records maintained about them by the University of New Mexico, and, in many cases, decide if a third person can obtain information from them. Nine categories of information, however, are public (or directory information) unless a student asks that some or all of that information be withheld. It is the policy of the University to comply fully and fairly

with the provisions of the Act, Federal Regulations and this policy.

##### 2. Limitations on Access to Student Records

No one inside or outside the University shall have access to, nor will the contents of students' education records be disclosed without the written consent of the students except as provided by the Act and Regulations. Exceptions in the Act and Regulations include but are not limited to the following: personnel within the institution determined by the institution to have a legitimate educational interest, officials of other institutions in which students seek to enroll or are enrolled, persons or organizations providing student financial aid, accrediting agencies carrying out their accreditation function, persons in compliance with judicial orders and persons in an emergency when necessary to protect the health or safety of students or other persons.

##### 3. Students' Right of Access to Review Their Records

A student has the right to inspect and review all education records about him or her except: (1) personal notes (available only to writer or substitute) of University staff and faculty, (2) certain student employment records, (3) counseling records used solely for treatment, (4) certain records of the University Police, (5) parents' financial records, (6) confidential letters and statements of recommendation placed in the records before January 1, 1975, and (7) confidential letters and statements of recommendation for admission, employment, or honorary recognition placed in the records after January 1, 1975, which students have waived the right to inspect and review.

##### 4. Informing Students of Their Rights

This policy will be published in the *UNM Pathfinder* or its successor.

##### 5. Location of Student Records

Student records are not maintained in a central location. Instead, these records are maintained by each office with which a student has contact while enrolled at the University. A partial list of places where educational records are maintained by various University offices is listed below.

- Admissions Office, Director of Admissions, Student Services Office
- Career Counseling and Placement, Director, Career Counseling and Placement, Student Services Office
- Cashiers and Student Accounting, Bursar, Building 1
- College and Department Offices, Academic Dean, See individual college listing in the course schedule
- Dean of Students Office, Associate Vice President and Dean of

- Students, Student Services Office
- Graduate Studies, Dean, Graduate Studies, Humanities Building
- Housing Services, Director of Finance, Building 1
- Records and Registration Office, Registrar, Student Services Office
- Financial Aid Manager, Student Financial Aid Office, Student Services, Building 2.1

## 6. Records Excluded from the Definition “Education” or “Student” Records

- 6.1. Records of instructional, supervisory, administrative and certain educational personnel which are in the sole possession of the maker and are not revealed to any other individual (except a substitute who performs on a temporary basis the duties of the person who made the record).
- 6.2. Records of the University Police. These records are maintained and created by the University Police Department for the purpose of law enforcement. Their disclosure is subject to rules and regulations of the University Police, consistent with applicable law.
- 6.3. Records relating to individuals who are employed by the University which are made and maintained in the normal course of business, relate exclusively to individuals in their capacity as employees and are not available for use for any other purpose. However, it should be noted that records of individuals in attendance at the University who are employed as a result of their status as students are education records and as such may be inspected by the student.
- 6.4. Records which contain only information about a person after that person is no longer a student at the institution, e.g., information gathered on the accomplishments of alumni.

## 7. Review Policies and Procedures

Requests to inspect and review records must be made, in writing, to the office that keeps the records. Although it is the University’s policy that requests to inspect records be honored as promptly as possible, the offices have up to 45 days to honor such requests.

It is the policy of the University to provide the student upon request with photocopies of her or his records where that will help the student in inspection and review of the records unless: (1) the record to be copied is an examination, in which case permission of the faculty member is necessary, or (2) where a student’s record is being withheld because of an outstanding financial obligation to the University.

Fees for photocopies of materials in the records are the same as University offices charge for photocopies of other materials. At its option, an office may furnish copies at no charge, or take the materials to a copy/duplicating center on campus, where the current rate for cash work will be charged.

## 8. Release Policies and Procedures, University Employees and Agents

The University will not disclose personally identifiable information from a student’s education record without the student’s written consent, except when it is permitted by the Act and Regulations. As permitted by the Act and Regulations, information will be disclosed without the student’s consent to University officials with a legitimate educational interest. These officials or their agents, and their interests, include:

- 8.1. Any University employee who needs the information to fulfill job responsibilities.
- 8.2. University collection agents only for the purposes of collecting debts owed to the University.
- 8.3. Legal counsel advising or representing the University.
- 8.4. National Collegiate Athletic Association and the Mountain West Athletic Conference only for the purposes of conforming to eligibility rules for athletic competition.
- 8.5. Contractors, such as data processing, only for the purposes of performing work under contract for the University.
- 8.6. Honorary societies, and other chartered student organizations, only for determining membership eligibility/requirements, when the societies and/or organizations do not unlawfully discriminate on the basis of race, color, religion, national origin, physical or mental disability, age, sex, sexual preference, ancestry, or medical condition.
- 8.7. University researchers, including students doing research under supervision of a faculty member, if there are safeguards to protect the security of personally identifiable data and if it will not be possible to ascertain the identity of any student in any dissemination of the data or

research results.

8.8. Officials of cooperating universities in which the student is enrolled.

## 9. Release to Alleged Victims of Crimes of Violence

The results of any disciplinary proceeding conducted by the University in response to allegations of a crime of violence allegedly committed by a student, shall be disclosed upon request to the alleged victim(s) of such crime of violence.

## 10. Directory or Public Information Categories

The University, in accord with the Act, has designated categories of information about students as “directory information” which is public unless a student asks to have all of it withheld. These categories are

- Name
- Address (school and permanent)
- Telephone listing
- Electronic Mail Address
- Date of birth
- Major field of study (including current classification, year, credit load and number of academic credits earned toward degree)
- Dates of attendance (matriculation and withdrawal dates)
- Degrees and awards received (type of degree and date granted)
- Most recent previous educational agency or institution attended. Participation in officially recognized activities and sports, and weight and height of members of athletic teams.

A student wishing to keep confidential the “directory information” listed above should file a written request with the Office of the Registrar.

## 11. Requests for Disclosure

University offices will maintain a record of disclosures and requests for disclosure of personally identifiable information from a student’s record except when the request for disclosure is directory information, pursuant to the student’s consent, or is to a school official described in this policy. It is the policy of the University to permit the student to inspect this record of disclosures and requests for disclosure pertaining to his or her records. All disclosures (except for disclosures to the student or disclosures of directory information) shall be made on the condition that the information shall not be further disclosed without the student’s consent.

## 12. Right to Challenge Information in Student Records

It is the policy of the University that a student may challenge any information in his or her education records which he or she believes to be inaccurate, misleading or in violation of privacy. This right does not extend to reviewing grades unless the grade assigned by a professor was inaccurately recorded in the records. A student may also insert a statement in the records explaining any such material from his or her point of view. If a student wishes to challenge information in the file, he or she must make a written request for a hearing to the dean, director, or chairperson of the office which maintains the record. In most cases, the decision of the dean, director or chairperson will be final. However, a student may appeal in writing to the Associate Provost or the Vice President for Health Sciences or their designee, as the case may be, who will review the decision only if a significant question of policy or compliance with the law appears to be raised by the case.

## 13. Waiver of Rights Not Required

It is the policy of the University that students not be required to waive their rights under the Act before receiving University services or benefits.

## 14. Assistance with Problems or Questions about Compliance

If a student has questions about the provisions of the Act, he or she may contact the Office of the Registrar.

If a student believes that the University has not complied with the Act, he or she should direct comments concerning this to the Office of the Registrar.

If a student believes that the University has not complied with the Act, written complaints may be filed with the Family Educational Rights and Privacy Act Office (FERPA), U.S. Department of Education, 400 Maryland Avenue, SW., Washington, D.C. 20202-4605, telephone (202) 732-1807.

The Registrar shall either resolve the issue, or shall refer it to the appropriate University body for resolution.

Copies of and information about the Rights and Privacy Act are available in the Records and Registration Office, Student Services Office.

## **Change of Name**

Students who need to process a change of name for their academic records must bring appropriate documentation to the Records and Registration Office. The appropriate documentation includes proper photo identification (driver's license, Lobo Card, passport or other state issue identification) and the social security card showing the new name. No other type of documentation will be accepted.

## **Transcripts**

The Records and Registration Office issues both official and advisement copies of The University of New Mexico student records. A student may request a transcript of their academic record in the lower level of Building 2, by mail or by FAX. The address is Registrar, UNM-Los Alamos Student Services, 4000 University Drive, Los Alamos, NM 87544. The FAX number is (505) 661-4698. The following information is needed in order to process a request by mail or FAX: student name (all names used while at the University of New Mexico), social security number, date of birth and dates of attendance. The student's signature is required to authorize the release of any transcript. Proper photo identification (driver's license, Lobo Card, passport or other state issue identification) is required to obtain a transcript in person. A fee of \$3.00 is charged per official transcript. For rush requests, the fee is \$10.00 per transcript.

Transcript information and request forms are available online at [www.unm.edu/~unmreg/trans.htm](http://www.unm.edu/~unmreg/trans.htm).

Transcripts from other institutions that are sent to the University of New Mexico for purposes of admission are not copied or returned to the student.

## **Transcript Holds**

Transcripts may be held for financial and nonfinancial reasons. No official transcripts will be released until the student's outstanding obligations to the University have been paid or until satisfactory arrangements have been made.

## **Grade Notification**

Semester grades are available via I-TEL-UNM (246-2020) or <http://itel.unm.edu>. If a hard copy is required, it can be obtained at the registrar's office, located in the Student Services office located in the lower level of Building 2 on the UNM-LA campus.

## **Residency**

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

A student who enters and remains in this state 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 an out-of-state 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. Residency petitions will be accepted until the second Friday of each Fall and Spring semester in the Office of the Registrar in the Student Services office located in the lower level of Building 2.

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

### **The 12 Month Consecutive Presence Requirement**

A student must physically reside in the state for 12 consecutive months immediately preceding the term for which the student submits a petition.

### **The Financial Independence Requirement**

A student cannot be approved for residency who is financially dependent upon his or her parents or legal guardian who are non-residents of New Mexico. At the time the student applies for residency (if under 23 years of age), a copy of his or her parents' or guardians' 1040 or 1040A U.S. income tax form for the previous year must be submitted with the application. If the student is shown to be a dependent on this tax form, he or she will not be eligible to establish residency apart from his or her parents or guardian.

### **The Written Declaration of Intent Requirement**

The student must sign a written declaration of intent to relinquish residency in another state and to establish it in New Mexico.

### **The Overt Acts Requirement**

New Mexico requires the completion of several "overt" acts which support the student's declaration of intent to become a permanent resident. The required overt acts are:

1. if employed, evidence of employment within the state of New Mexico;
2. if employed in New Mexico, evidence of payment of New Mexico state income tax;
3. a New Mexico driver's license;
4. a New Mexico vehicle registration; and,
5. voter registration in New Mexico.

Any act considered inconsistent with being a New Mexico resident will cause the request for resident classification to be denied. As such, other relevant factors may be considered in addition to the items listed above. For example, additional documentation which may be requested of the student may include: 1) evidence of a long established bank account of at least six months in New Mexico or 2) evidence of residential property ownership in New Mexico or evidence of a rental agreement within New Mexico.

### **NOTES:**

1. Any act considered inconsistent with being a New Mexico resident—such as voting, securing and/or maintaining a driver's license and automobile registration in another state, etc.—will cause the petition to be denied.
2. The 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 durational

requirement. However, all other requirements must be satisfied.

3. Active duty military stationed in New Mexico, their spouses and dependents are eligible for waivers for non-resident tuition. Members of the New Mexico National Guard are also eligible for waivers for non-resident tuition. A form must be submitted to obtain these waivers. According to the University of New Mexico's tuition policy:

Students enrolling for 6 hours or less during a regular semester will be charged resident tuition rates regardless of residency classification.

Students enrolling for the summer session will be charged resident tuition rates regardless of residency classification.

A brochure explaining all requirements for establishing New Mexico residency and residency petitions are available from the Office of the Registrar, Student Services Office, lower level of Building 2. For more information, please call (505) 662-0332.

### **Academic Advisement**

All freshmen and new transfer students are required to receive academic advisement before registering for classes. The Colleges of Engineering and Education require advisement every semester prior to registration. All students in Certificate and Associate Degree programs are required to receive advisement every semester prior to registration.

### **Schedule of Classes**

The Schedule of Classes is an official publication of the University, distributed each semester without charge. The publication includes course offerings, dates, times, places and procedures for registration and other important information. The schedule can also be accessed at <http://www.la.unm.edu/>.

### **Registration Procedures**

Details are outlined in the Schedule of Classes and at <http://itel.unm.edu>.

### **University Identification Card (Lobo Card)**

A nontransferable photo identification card is issued to UNM-Los Alamos students. The photo identification card, or Lobo Card, allows you to check out materials from libraries, access to the Student Health Center, access to University facilities, campus meal plans and other services. In addition, there are other user-activated options available both on and off campus, including use as a telephone calling card.

UNM-Los Alamos arranges for the Lobo Card Office to send an employee to its campus to facilitate student's access in obtaining the Lobo Card. The Lobo Card Office is located in the Student Services Center, Room 131 at UNM-Albuquerque.

For more information call (505) 662-0332. The following policies are in effect for the Lobo Card:

1. The Lobo Card is the property of the University of New

Mexico.

2. The card is valid upon admission to the University; it is issued once, and is active upon a student's enrollment for the current semester. The Lobo Card remains valid for the duration of a student's college career and it activates and deactivates according to enrollment status. Lobo Card has no expiration date. You may obtain your ID at the UNM-Los Alamos Student Services Office. Proper photo identification (driver's license, passport, other state/federal-issued identification, etc.) is required.
3. Lobo Cards are issued with the name of the student as recorded in the University's Student Information System.
4. Updating of name or other student identifying information requires the reporting of the change to the Records and Registration Office prior to Lobo Card re-issuance.
5. Lost or stolen Lobo Cards must be reported as soon as possible to the Lobo Card Office.

- a. A non-refundable, non-waiverable fee will be collected for replacement of damaged, lost or stolen cards.

- b. Payment of a replacement fee constitutes authority for the de-activation and deletion of the missing identification card from the University of New Mexico's card database. Once that occurs, the old Lobo Card can never be reactivated.

- c. Students should check with the card office to see if a lost card has been turned in.

- d. Stolen cards should be reported to the appropriate

law enforcement agency. A copy of the police report must be provided to the Lobo Card office to obtain a replacement identification card at no charge. Anyone filing a false police report will be subject to disciplinary and/or criminal charges

6. Fraudulent use of a Lobo Card is cause for card privileges to be revoked. Unauthorized alteration, production, use, possession or reproduction of a Lobo Card is prohibited, may constitute theft, and can result in prosecution (30-14-2 NMSA 1978). In addition, such action could result in referral to both the Associate Director for Student Services for disciplinary proceedings or appropriate authorities for legal action.

### **Payment of Tuition and Fees**

Payment of tuition and fees is required to complete registration. For specific information regarding tuition, fees, payment and payment deadline dates refer to the Financial Information section of the current Schedule of Classes.

### **Enrollment Limit**

Students may not take more than 18 hours during a semester and 9 hours during the summer session, except with approval from the Associate Director of Student Services. Students in Non-degree status who have not earned at least a baccalaureate-level degree must obtain permission from the Vice Provost for

Extended University to take more than 9 hours.

### Enrollment Certification

Enrollment Certifications are requested by individuals, institutions or organizations for information related to a student's past or current enrollment. Information requested normally takes the form of validation of confirmed degrees, dates of attendance or whether a student is full- or part-time.

The National Clearinghouse is now the University of New Mexico's authorized agent for providing enrollment and degree verifications. If an employer or background screening firm requests this information, please have them contact the National Student Clearinghouse at (703) 742-4200 or visit their Web site [www.studentclearinghouse.org](http://www.studentclearinghouse.org).

The University of New Mexico will produce a standardized enrollment certification document validating a student's status for the current semester, preregistered semester and any semester for the past four calendar years. If a student wishes to have their entire academic history certified or semesters not covered by the certification process, they must request a transcript. The University of New Mexico does not certify expected graduation date.

The certification document can be mailed on request or picked up with proper photo identification (driver's license, Lobo Card, passport or other state issue identification). This document will replace the institutionally specific forms. Students that request processing of specific forms will be required to pay \$10.00 per document to be processed.

The guidelines listed below are used primarily to determine enrollment status for financial aid eligibility and loan deferments. Graduate students with an assistantship must submit a copy of their contract with their verification request. Students withdrawing after the 6th week of classes will be subject to grades of WP (withdrawal passing) or WF (withdrawal failing). The grade WF is included in the total course load for purpose of enrollment verification. WP is not included in the total course load for purpose of enrollment verification. Courses taken in Audit, Extension or Correspondence status are also not included in total course load, for purposes of enrollment verification.

### Course Load Guidelines

#### Undergraduates/Non-Degree

1. Fall/Spring Semesters
  - a. Full-time: 12 or more credit hours.
  - b. Half-time: 6–11 credit hours.
  - c. Less than half-time: 5 or fewer credit hours.
2. Summer Session
  - a. Full-time: 6 or more credit hours.
  - b. Half-time: 3–5 credit hours.
  - c. Less than half-time: 1 or 2 credit hours.

### Changes in Enrollment

Once registered, students may process schedule changes through the drop/add procedures during appropriate periods.

Procedures for schedule changes and deadlines are published in the Schedule of Classes.

#### Summer Session and Short Courses.

Deadlines for processing drops, adds, withdrawals and grade options for summer and short courses vary according to the length of the course. Consult the *Schedule of Classes* for specific dates.

#### For 16-week courses, the following applies:

- **Add.** Students may add courses or change sections through the second week of the semester.
- **Drop.** A student may drop a course or courses without a grade during the first six weeks of the semester.
- **Withdrawal from a Course.** After the sixth week a student may withdraw from a course until the end of the 12th week of the semester and is subject to grades of WP or WF to be determined by the instructor at the time of the withdrawal. The WF will be calculated as a failing grade in the student's grade point average. After the 12th week, course withdrawals will only be accepted with approval from the dean or director of the student's college. No withdrawals will be accepted after the last day of instruction of the semester, prior to final exam week.

**NOTE:** Faculty are not responsible for dropping students who do not attend. It is the student's responsibility to check the accuracy of their course schedule.

- **Change in Grading Option.** Changes in grading option (including audit, pass-fail option, letter grade or graduate credit option) in any course may be made through the fourth week of the semester. It is the student's responsibility to make certain that they are registered in any course for the proper grading option. (Graduate students see sections of this catalog that pertain to graduate courses.)
- **Completion of Courses.** Students are responsible for completion of all courses in which they are enrolled at the University. Changes in enrollment, drops or withdrawals must be officially processed. A student not following proper course or University withdrawal procedures may be given a failing grade and will be responsible for tuition changes associated with the course.

### Withdrawal from the University

- Students can withdraw from all courses on or after the first day of classes through the last day of classes prior to final exams by using <https://itel.unm.edu> or I-TEL-UNM (246-2020) and selecting the UNM withdrawal option. Students may contact the Student Services Office, (505) 662-0332 for advisement on withdrawing from all courses.
- Summer session and short courses follow a different deadline, please see the *Schedule of Classes*.
  - Students who withdraw during the first six weeks of classes will not receive a grade notation on their academic record. The notation on a student's record will

be “withdrew” followed by the date.

- University withdrawals initiated after the sixth week of classes will be subject to grades of WP or WF.

The WF will be calculated as a failing grade in the student’s grade point average. All withdrawal grades will be assigned by the instructor upon completion of the University withdrawal process. The notation on a student’s record will be “withdrew” followed by the date, along with the course name and grade assigned.

- Students leaving the University during a semester without withdrawing according to this regulation become liable for grades of F in their classes, even though they may be passing their courses at the time of leaving the University.

- **Students are responsible for all outstanding financial obligations when withdrawing.** See the “Tuition and Course Fee Refunds” section for more information.

### Policy on Military Withdrawals

Under faculty regulations, students who formally withdraw from the University before the end of the 12th week of the semester due to military obligations are entitled to a grade of WP in each course in which they are enrolled. Military orders or evidence of enlistment must be made available to the Student Services Office. A student who withdraws due to military obligations after completing 12 weeks of instruction will receive full credit for each course in which they are enrolled provided the instructor certifies a grade of C or better for the course at the date of formal withdrawal. They will receive a grade of WP if the instructor certifies a grade of less than C. Students must opt for either a tuition refund or for a grade assignment after the 12th week. A final semester senior who has satisfactorily completed at least half of the work in courses for which they are enrolled that semester, provided these would complete their degree requirements, may be certified for graduation by the faculty of their college. Students are responsible for complying with all regulations of the University, their respective colleges and the departments from which they take courses, as well as for fulfilling all degree requirements. Students are responsible for knowing and complying with all academic regulations.

### General Academic Regulations

Students are responsible for complying with all regulations of the University, their respective colleges and the departments from which they take courses, as well as for fulfilling all degree requirements. Students are responsible for knowing and complying with all academic regulations.

### Change of College

Undergraduate students who desire to gain admission to a degree-granting unit or to change their enrollment from one degree program to another within the University must petition the Associate Director of Student Services. A change in degree program after the third week of the semester will not be effective until the following semester. At the time of

graduation, students must be enrolled in the UNM-Los Alamos degree program from which they receive their degree.

### Class Hours and Credit Hours

A class hour consists of 50 minutes. One class hour per week of recitation or lecture throughout a semester earns a maximum of 1 credit hour.

### Course Numbering System

Courses offered at the University are numbered from 001 through 799:

- 001 to 100 courses may or may not carry credit, but they are not applicable toward a baccalaureate degree.
- 101 to 199 courses, lower division, normally are open to freshmen.
- 200 to 299 courses, lower division, normally are open to sophomores.
- 300 to 499 courses, upper division, normally are open to juniors and seniors, fifth year undergraduates and graduates
- 500 to 799, graduate and professional, normally are open only to students enrolled in the graduate degree programs, the School of Law or the School of Medicine.

**NOTE:** Undergraduate or non-degree students without a degree may not enroll in any graduate programs (courses numbered 591, 592 and 593) for undergraduate credit.

T-suffix indicates a technical, vocational or special course. T-courses are applicable for baccalaureate credit only upon petition to and approval from The University of New Mexico degree granting unit.

Freshmen may in some instances qualify for courses numbered in the 200s. Courses numbered 300 and above are not open to lower division students (freshmen and sophomores) except in rare instances and then only with the approval of the college dean. When appropriate, students may be disenrolled from courses numbered 200 and above. See the individual program sections of this catalog and the UNM catalog for specific regulations.

### Grades

UNM-Los Alamos utilizes a fractionated grading system. Following are the allowable grades and associated grade points:

A+	4.33
A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
D-	0.67
F	0.00

**CR Credit.** Gives credit for the course but is not computed in the grade point average. CR credit is the equivalent of at least a grade of C. At the graduate level CR is used to report completion of a master's thesis or doctoral dissertation. (See the following pages for specific information concerning pass/fail [CR/NC] option grading.)

**NC No Credit.** Not computed in the grade point average. At the graduate level NC is also used to report unsatisfactory completion of master's thesis or doctoral dissertation. Certain workshops and courses may be offered under CR and NC as defined above.

**I Incomplete.** The grade of I is given only when circumstances beyond the student's control have prevented completion of the work of a course within the official dates of a session. (See the policy on Removal of Incomplete.)

**AUDIT** Audit is recorded for completion of enrollment in an audited course. No credit is earned for an audit grade option.

**WP Withdrawal Passing.** All approved course withdrawals after the sixth week of classes are subject to the grade of WP, if passing the course at the time of withdrawal.

**WF Withdrawal Failing.** All approved course withdrawals after the sixth week of classes are subject to the grade of WF, if failing the course at the time of withdrawal. The grade of WF will be calculated as a failing grade in the student's grade point average.

**WNC Withdrawal, No Credit.** Not computed in the grade point average. WNC indicates officially withdrew with unsatisfactory (C- or below) performance in pass/fail (CR/NC) option enrollment or course approved for pass/fail (CR/NC).

**W Withdrawal.** A W grade is used for approved administrative withdrawals only at the end of a semester. Examples of administrative withdrawals include: determination by the instructor that the student never attended the class, processing errors, catastrophic illness of the student or other reasons beyond the student's control.

**RS Reinstatement.** Not computed in the grade point average; no credit is earned. An RS grade is used for approved retroactive enrollment in 599 or 699 when the student did not complete any work on the thesis or dissertation.

**NOTE:** Graduate students may not be assigned C-, D+, D or D- grades.

### Grade Point Average.

An undergraduate student's grade point average is calculated by dividing the total number of grade points (see Grades, above) earned at UNM-Los Alamos by the total number of hours attempted. These hours must be attempted in courses with letter grades and the courses must be numbered 100 or above. Courses for undergraduate students given a grade of W, WP, WNC, CR, NC, PR or I are excluded in the grade point average calculation.

The grade point average and earned hours for unclassified, non-degree, certificate and associate degree students will

include all course work taken at any level at UNM-Los Alamos. Upon the student's acceptance into a baccalaureate level program, all non-baccalaureate level courses (suffix "T") will be excluded from the calculation of earned hours and grade point average.

The academic standing of all students is reviewed at the end of each semester and Summer session. At such times, all students who are deficient in scholarship are placed on probation, or suspended, in accordance with the regulations of their college.

**NOTE:** This is a general University of New Mexico grade point calculation. Schools and colleges within the University may compute the grade point average differently.

Grades earned in courses taken at other institutions are not included in calculation of The University of New Mexico grade point average. The grade point average will reflect only courses taken at The University of New Mexico.

### Pass/Fail (CR/NC) Option

1. This grading option is open to students enrolling in courses that do not apply to their major.
2. A student is permitted to enroll in a maximum of 4 credit hours per semester under the pass/fail (CR/NC) grading option.
3. CR (credit) is the equivalent of at least a grade of C. Students who do not satisfactorily complete a course under pass/fail (CR/NC) grading will receive NC (no credit).
4. A course may be changed to the pass/fail (CR/NC) grade option. See current Schedule of Classes for deadlines.
5. A maximum of 24 credit hours graded pass/fail (CR/NC) will be allowed toward a baccalaureate degree. Graduate students may not count more than 6 hours of course work in which a C (2.0), C+ (2.33) or CR was earned.
6. Courses that are specifically approved for pass/fail (CR/NC) are not included in the 24-hour maximum allowed toward degree requirements.
7. The following may not be taken under the pass/fail (CR/NC) option:
  - a. Courses in the University Honors Program and the Undergraduate Seminar Program.
  - b. Courses that are part of the student's major (as defined by the major department) with the exception of those courses especially approved for use of pass/fail (CR/NC) grading.
  - c. Courses that are part of the student's minor (see specific college and departmental requirements).
  - d. Correspondence courses.
  - e. Courses the student is repeating after first having taken the course under the regular grading system. Some schools, scholarship committees and honorary societies do not accept this grading system and convert grades of "Credit" to C and "No Credit" to F when computing grade point averages or may otherwise penalize students

who use this option.

**NOTE:** Students may not be penalized by a department if, when selecting or changing a major field, they have taken a course in their major on a pass/fail (CR/NC) option basis.

### Audit

A student may register in a course for audit, provided written permission of the instructor is obtained. (See current Schedule of Classes for deadlines.) A student who fails to attend class may be dropped at the instructor's request. The fee for audited courses is the same as for credit courses.

Audit enrollment receives no credit and is not included in the student's total course load for purposes of enrollment certification. Audited courses appear on the academic record. Courses taken for Audit may be repeated for credit.

### Repetition of a Course

A student may repeat any course but will receive credit only once unless otherwise noted in this catalog. **ALL ATTEMPTS** and **ALL GRADES** are computed in the student's grade point average. A grade replacement policy is available for repeated course work as described below.

### Grade Replacement Policy

The course repeat policy was revised by the Faculty Senate to include a grade replacement option effective Spring semester 1991. Under this policy, only undergraduate students may repeat a course for a higher grade and have the lower grade removed from the grade point average. This revision is an option for students who meet the criteria outlined below. Repeated courses for students who do not meet the criteria or who choose not to make use of the option automatically fall under the existing policy as described under "Repetition of a Course."

The following outlines the procedure for the implementation of this course repeat (grade replacement) option. **NO EXCEPTIONS WILL BE MADE TO THIS POLICY.**

1. The Grade Replacement option policy is effective as of Spring semester 1991 and only affects UNM course work from Spring 1991 forward. This means that the first attempt in a course cannot have been prior to Spring semester 1991. The policy is not retroactive to any semester prior to Spring 1991. A student who fails a course at UNM and repeats the same course with a grade of C or better at another college or university may have the credit accepted for transfer, but the grade received at UNM will continue to be computed in the grade point average.
2. Students who are in undergraduate status are eligible to use this policy and only course work being applied toward an undergraduate degree will be considered for a grade replacement.
3. A repeated course must result in an improved grade in order to replace the other grade (e.g., a D cannot replace a D). The higher grade will remove the lower grade from the grade point average and earned credit hours.

Grades of CR, NC, PR, WP and W are not replaceable grades since they do not affect the grade point average.

4. The process is not automatic. Students must initiate the process by completing a form in the Student Services Office, indicating which course is to be replaced. The course numbers and titles must be identical, except where equivalencies or a change has been noted in *The University of New Mexico-Los Alamos Catalog*. No substitute courses are acceptable. Forms will be accepted after the second attempt in the course has been completed.
5. A grade replacement may be applied to only 12 hours of repeated course work. Only one grade replacement is allowed for each course, regardless of the number of times the course has been repeated.
7. No grade may be replaced after a Bachelor's degree has been awarded.
8. All grades will remain on the record. An "N" will appear on the transcript next to the course that has been replaced.

**NOTE:** This policy applies only to courses taken and repeated at The University of New Mexico or one of its branches.

### Incomplete (I) Grade

(The Incomplete Grade Policy is currently being reviewed. Please check with the Office of the Registrar for any changes.)

According to academic policy, incomplete grades must be completed before a student is eligible to graduate from the University of New Mexico.

The grade of "I" is given only when circumstances beyond the student's control have prevented completion of the course work within the official dates of a session.

**Students should not re-enroll or re-register (for credit) in a course for which an Incomplete has been received in order to resolve the Incomplete.**

**If an instructor requires the student to repeat the class in order to resolve the Incomplete, the student must register for the course on an audit basis.**

Incomplete grades must be resolved by the published ending date of the next semester in attendance or within the next four semesters if the student does not re-enroll in residence. An Incomplete may be resolved even though a student is not enrolled in residence. Incomplete grades not resolved within the time frames stated in this policy will be converted automatically to F (failure).

Students resolving Incompletes in their semester of graduation must have the process completed (including the reporting of the grade to the Records and Registration Office) by the deadline. Students are responsible for informing instructors that they are graduating and that the grade(s) must be reported by the appropriate deadline. Failure to complete the process as described could result in the postponement of graduation until the following semester.

The instructor of record will report the final grade for the



course in which the Incomplete was assigned to the Student Services Office.

### Extension of Incomplete

It is the policy of UNM that incomplete grades must be resolved by the published ending date of the next semester in attendance or within the next four semesters if the student does not re-enroll in residence. Under similar policy a student may apply for an extension of the time allowed to complete the required course work removing the “I” grade. The request for extension may be obtained in the Student Services Office. For the student who re-enrolls in residence, a one-semester extension may be granted. Students who do not re-enroll must complete the course as per guidelines above. Incomplete grades not resolved within the time frames stated in the above policy will be converted automatically to “F.” If an extension is granted, it is the student’s responsibility to remove the “I” grade by the date indicated.

### Change of Grade

The instructor of a course has the responsibility for any grade reported. Once a grade has been reported to the Student Services Office, it may be changed by submitting a grade change form to the Student Services Office. Only the instructor who issued the original grade (instructor of record) may submit any change. The change of grade must also be approved by the college dean or departmental chairperson **if submitted 30 days after end of semester**. Any change in grade must be reported within 12 months after the original grade was issued and prior to graduation. Grade changes may be referred to the Student Services Office for approval.

### Grade Petition Procedure

1. A student seeking retroactive withdrawal, enrollment or disenrollment; extension of time for removal of an incomplete grade or a grade option change; or further academic record changes involving exceptions to the rules governing registration and academic records which are set forth in *The University of New Mexico-Los Alamos Catalog* may submit petitions to the Student Services Office. This petition process does not cover disputes involving academic judgment (Refer to the *UNM Pathfinder*, “Student Grievance Procedure,” Article 2, Academic Disputes).
2. The petition must state the nature of the request, specify the semester involved, the course and section number, the student’s name, identification number, mailing address and telephone number. The petition must also state the reason for granting the request and include documentation of extenuating circumstances, such as medical, family or employment needs. The petition must be typed and signed.
3. Upon receipt of student’s petition, the instructor(s) involved will be contacted for a statement concerning the request.
4. The petition (along with instructor comments) will be

forwarded to the Grade Petition Committee for review and a decision. If the petition is approved, appropriate modifications will be made to the student record. The student is responsible for tuition incurred.

5. Students will be notified in writing of the outcome of the petition.
6. If students wish to appeal the decision, they may contact the Student Services Office, lower level of Building 2.

### Academic Renewal Guidelines

Academic Renewal applies to students seeking undergraduate degrees who have been readmitted to UNM-Los Alamos after an absence of five years or more. The procedure allows a currently enrolled student to request their academic record be reviewed for the purpose of evaluating previously earned UNM-Los Alamos credits and recalculating the student’s grade point average from the point of re-admission.

The student may obtain a petition from the Student Services Office, lower level of Building 2. If all criteria are satisfied, the petition will be approved and the academic record appropriately noted.

**NOTE:** Non-degree, second undergraduate degree or graduate students are not eligible for Academic Renewal.

1. Academic Renewal may be applied only once and is not reversible.
2. An absence of five or more years must have elapsed between readmission and the last enrollment at UNM-Los Alamos.
3. The student must be currently enrolled in an undergraduate degree program. Additionally, college entrance requirements such as minimum hours and grade point average must still be met after Academic Renewal has been applied.
4. After readmission to UNM-Los Alamos, at least 12 credit hours, but no more than 36 credit hours, must be completed in good standing (2.00 GPA or better) before Academic Renewal can be applied.

**NOTE:** If the degree-granting unit has placed the student on probationary status, it is not automatically changed by Academic Renewal.

5. All graduation requirements must be satisfied after Academic Renewal, i.e., minimum earned credit, residence credit requirement, cumulative grade point average, etc.

**NOTE:** Credit earned prior to Academic Renewal will not count toward satisfying the residence credit requirements.

6. All courses taken prior to Academic Renewal will remain unaltered on the record. An appropriate notation will be added to the record to indicate Academic Renewal. Courses with a grade of C or CR or better taken prior to Academic Renewal will be carried forward as earned credits. Acceptability of these credits towards a degree will be determined by the degree-

granting unit.

7. Courses with a grade of C- or below taken prior to Academic Renewal will be noted and will not count for earned credits or for satisfying any graduation requirements.
8. Academic Renewal, when applied, will be effective as of the date of the readmission following the five-year absence.
9. The cumulative grade point average after academic renewal will be calculated on the basis of courses taken since the readmission following the five-year absence.

### **Classroom Conduct**

The instructor is responsible for classroom conduct, behavior and discipline. Any action that would disrupt or obstruct an academic activity is prohibited. The instructor may refer situations involving classroom misconduct to the Associate Director of Instruction or Associate Director for Student Services for additional action under the "Student Code of Conduct" as published in the *UNM Pathfinder*.

Use of classrooms or other facilities during scheduled activities is limited to enrolled students and University personnel. Use of these facilities during nonscheduled periods should be arranged with the appropriate department or other division of the University.

**Smoking, eating and drinking are prohibited in all classrooms and teaching laboratories, including seminars.**

### **Dishonesty in Academic Matters**

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, including dismissal, against any student who is found responsible for academic dishonesty. Any student who has been judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course.

Academic dishonesty includes, but is not limited to, dishonesty in quizzes, tests or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; and misrepresenting academic or professional qualifications within or outside the University.

### **Attendance**

Attendance is required at all sessions of each class for which the student is enrolled. **Students should not assume that nonattendance will lead to being dropped from class.** It is the student's responsibility to initiate drops or complete withdrawals utilizing I-TEL-UNM or at <http://itel.unm.edu>.

A student with excessive absences may be dropped from a course with a grade of WF, upon recommendation of the instructor. Instructor initiated drops will be submitted to the Registrar's Office.

### **Dismissal**

Students are subject to dismissal from a college or a degree program based on minimum requirements set by that college or program. Please refer to each college section in the *UNM Catalogue* and the program section of this catalog for specific requirements. Dismissal from a college or degree program is not the same as suspension but may preclude the student from enrolling at the University.

### **Probation**

Probationary status serves as a warning to students that they are no longer in good academic standing and that they may be suspended.

Undergraduate students who have 30 or fewer attempted hours must have a cumulative grade point average of at least 1.70 to be in good standing. Thereafter, the cumulative grade point average to remain in good standing is at least a 2.00.

Undergraduate students are placed on probation at the end of any semester (or Summer session) for which their cumulative grade point average falls below these minimum requirements. Special requirements may be placed on students who are on probation.

### **Degree-Granting Programs and Non-Degree Status.**

Students in degree-granting programs or in non-degree status may be placed on academic probation at the end of any semester if they fail to meet the minimum cumulative grade point average required to remain in good standing in their program. The minimum grade point average is at least a 2.00 but is higher in some programs. Students must familiarize themselves with the academic regulations of their program.

### **Suspension**

Students on suspension may not enroll for classes at UNM-Los Alamos until their suspension period has been completed.

### **Degree-Granting Programs and Non-Degree Status.**

After a semester on probation, students whose cumulative grade point average for the next semester remains below the minimum required to be in good standing in their program are eligible for suspension.

### **Suspension Period**

Students suspended for the first time may not enroll for classes at UNM-Los Alamos for a period of one semester from the date of the suspension. Students suspended for the second time may not enroll for classes for a period of two semesters from the date of the suspension. Students suspended for the third time may not enroll for classes for a period of five academic years from the date of the suspension.

### **NOTE:**

1. Summer sessions are counted with the following fall semester for purposes of this policy, e.g., a student suspended at the end of a spring semester may not attend either the following summer session or fall semester.

2. Students absent from the University for a year or more, for suspension and/or any other reason, must reapply for admission to the University.
3. Students who are accepted for readmission after suspension will be readmitted on probation in the accepting college.
4. College deans may specify the number of hours for which a student may enroll following a suspension. They may also require students to drop hours or courses that seem beyond their abilities.
5. Attendance at another institution during suspension must be indicated on the student's application for readmission and an official transcript must be sent to the Student Services Office as part of the reapplication.

## Student Financial Aid

A college education is an investment in your future. It is an investment that will pay increasing dividends in earning power and in the quality of your life. The basic premise underlying student financial aid is that the primary responsibility for a student's education rests with his or her family. When the resources of the family are not sufficient to meet college costs, the student may be eligible to receive financial assistance. This aid may come in the form of scholarships, grants, work programs and/or student loans.

If you feel you may need financial help to pay for college expenses, you should apply for financial aid to determine your eligibility. The following information will explain the application process and answer questions about costs to attend and financial aid at UNM-Los Alamos. To maximize your opportunity for funding, your application must be received by March 1. You must also respond to any request for additional information in a timely fashion. Pell Grants and Direct Student Loans remain available to eligible students who submit applications after the March 1 priority date.

The Free Application for Federal Student Aid (FAFSA) is used to apply for all types of federal and state need-based aid. Students can apply for financial aid on the Web or by completing the paper application. We encourage students to apply on the Web. The address is: <http://www.fafsa.ed.gov>. UNM-Los Alamos' Federal School Code is E00660. All prospective students must be admitted to UNM-Los Alamos to receive an offer of financial aid.

The costs of attending UNM-Los Alamos include: 1) tuition and fees; 2) room and board; 3) books and supplies; 4) transportation; 5) personal expenses; and 6) child care costs, if applicable.

For additional information regarding costs and financial aid at The University of New Mexico, please access our Web page at: [www.la.unm.edu](http://www.la.unm.edu).

### Satisfactory Academic Progress

To retain eligibility for financial aid, students must re-establish their need for funds by submitting the FAFSA application each year, and they must meet a minimum standard of academic performance in their course work and progression

toward a degree. All students will have their academic progress monitored each semester to determine continued eligibility for assistance. There are three major components to UNM-Los Alamos' Satisfactory Academic Progress Policy:

**Grade Point Average:** Students are required to maintain a grade point average consistent with graduation requirements for their major as follows:

- While completing the first 30 credit hours as an undergraduate, a student must attain a minimum 1.7 GPA.
- Students with more than 30 credit hours must sustain a minimum 2.0 GPA.
- Graduate students must sustain a minimum 3.0 GPA.
- Law, Medical and Doctor of Pharmacy students must sustain a minimum 2.0 GPA.

**Completion rate:** Students must have successfully completed not less than 67% of the credit hours for which they registered. Audit classes do not count toward the successful completion rate. Examples of credit hours registered for but not successfully completed are courses assigned the grades: **I, W, WF, WP, F and NC**. Remedial classes are counted in the completion rate requirement.

**Maximum time frame:** Students may attempt up to 150% of the minimum credit hours required for completion of their program before exhausting eligibility for financial aid. For example, if your associate degree program requires that you complete 66 credits for graduation, you may attempt up to 99 credit hours before exhausting your eligibility for financial aid. No additional allowance is granted for students pursuing double majors. Remedial classes are counted in the maximum time frame requirement.

Should you fail to meet the criteria listed above, you will no longer be eligible to receive financial aid at UNM-Los Alamos. Petitions will be allowed for students with extenuating circumstances beyond their control, such as a serious personal illness, divorce or the death of a close family member.

### Enrollment Requirements for Financial Aid

To receive financial aid, students must generally be



enrolled at least half-time as a regular student in an eligible program. Scholarships generally require full-time enrollment. Courses taken as AUDIT are not included toward financial aid enrollment requirements. Award amounts are generally prorated according to enrollment status.

The student is responsible for meeting minimum enrollment requirements. Students knowingly receiving aid to which they are not entitled may constitute violations of University policy and state or federal laws. If you have any questions contact the Financial Aid Office.

### Enrollment Requirements

Undergraduate Students	Full-time	12 hours
	Three-quarters time	9 hours
	Half-time	6 hours
Graduate Students	Full-time	9 hours
	Half-time	5 hours

### Non-resident Students

The student is responsible for obtaining the correct residency classification prior to the end of the second week of the semester. A student not classified as a New Mexico resident will be charged as a non-resident. Please refer to the Residency section in this catalog.

### Direct Lending

UNM-Los Alamos is no longer a participant in the Federal Stafford Loan Program. The federal loan program will be the William D. Ford Direct Loan Program. Students wishing to borrow under this program can contact Financial Aid for more information. This loan program will replace both in-state and out-of-state loan applications as well as all branch loan applications. This program applies to all students at the University — no other loan application will be accepted.

### Typical Sources of Financial Aid

Program	Per Academic Year	Award Amount
Federal Pell Grant	Maximum	\$ 4,050
Federal Supplemental Ed. Opportunity Grant	Maximum	\$ 1,500
State Student Incentive Grant	(Based on 2003-04)	\$ 1,500
UNM Bridge to Success Scholarship		\$ 420
UNM Lottery Success Scholarship	To be determined	\$ 420
Federal /State College Work-study	Undergraduate	\$ 4,000
	Graduate	\$ 5,000
Federal Perkins Loan	Maximum	\$ 4,000
Federal Direct Loan (Subsidized)	Freshman	\$ 2,625
	Sophomore	\$ 3,500
	Junior/Senior	\$ 5,500
	Graduate/Professional	\$ 8,500

\*Minus any subsidized amount borrowed

PLUS loans

(Parent Loan for Undergraduate Students)

Up to cost of education

### Student Employment

Students seeking part-time employment while attending UNM-Los Alamos may apply for a work-study position. Stop by the Financial Aid Office to see what positions are available.

### Payment by Financial Aid:

Financial Aid disbursement is done during the second week of class.

- Student charges for any services, sales or fines will be collected from the first available source of financial aid (grants, scholarships or loans) even if due date is later than aid release date.
- Students must be registered full time prior to receiving aid or have the Financial Aid Office adjust required number of hours to be eligible for aid.
- Registered students can call I-TEL-UNM to obtain information as to required payment and anticipated financial aid.

It is your responsibility to visit the Financial Aid Office to be certain your aid will be available, and you will not be disenrolled. If a delay in receipt of your financial aid occurs, you may wish to complete a promissory note application and pay the first installment and any processing fees at the Cashier's Office to avoid disenrollment.

College Work-Study awards will not be considered in arranging for payment.

If your tuition has been deferred based on financial aid and you decide not to attend UNM-Los Alamos you must officially withdraw through I-TEL-UNM (246-2020) or <http://ITEL.unm.edu> prior to the 100% refund deadlines published in the *Schedule of Classes*.

### Crediting Financial Assistance to a Student's Account

Students who are receiving financial assistance through programs detailed below will have their awards automatically credited to their accounts beginning on the Friday before classes if 1) they are registered full time (not less than 12 hours for undergraduate and 9 hours for graduate students) and 2) financial aid has been approved and awarded. These programs include:

- 1 . PELL Grant
- 2 . Supplemental Educational Opportunity Grant (SEOG)
- 3 . State Student Incentive Grant (SSIG)
- 4 . Perkins Loan
- 5 . Other Grants and Scholarships
- 6 . Direct Loans

Financial assistance awards will not be credited to a student's account until the student has registered for the required number of hours and has met all respective financial assistance source program requirements. Students will receive any remaining balance after deductions of current and past due charges in a refund check. Students with credit balances must come in to cashiers to receive the balance of their financial aid after the second week of class.

Students who are eligible for and will be receiving

funds from external scholarships will not have those funds automatically credited to their accounts but must visit the Financial Aid Office to have scholarships applied to their account and/or receive any surplus funding.

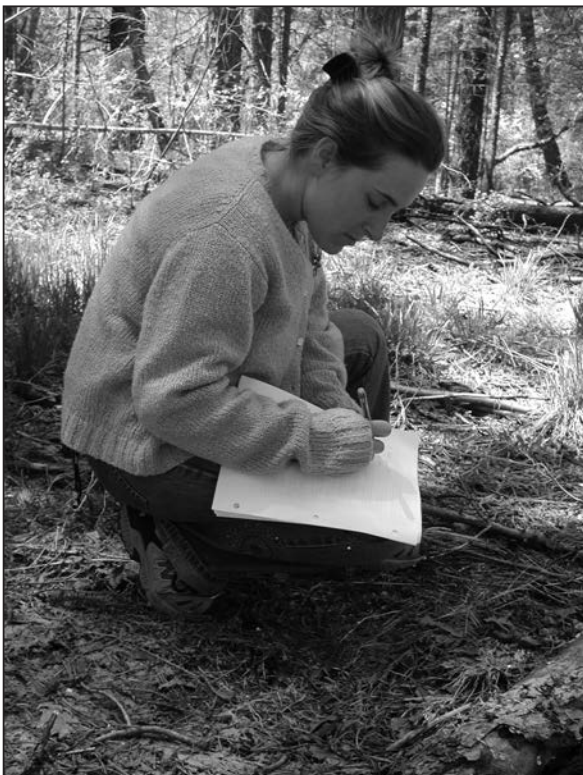
After Financial Aid has processed external scholarships and sent checks to the Cashier's Office, each student must visit the Cashier's Office to endorse the check(s). Any refund check and/or replacement check will be available in Cashier's Office once you have completed your transactions. Students not picking up refund or replacement checks will have their checks mailed the following business day to the student's current mailing address.

## More Student Services Information

### Finding Out About UNM

The Student Services Office located in the lower level of Building 2, (505) 662-0332, provides general undergraduate information about the University to prospective students. This information includes degree and course offerings, admission requirements and procedures, expenses, financial aid, scholarships, registration, housing, and special services and programs.

With sufficient notice, the Student Services Office can arrange for appointments with faculty, academic advisors, admissions officers, University representatives and a tour of the residence halls and the campus through the Campus Visit Program.



### Emergency Message Service

The Emergency Message Service is provided to reach students on campus. When an emergency arises, call (505) 662-0332. The staff will then access the student's schedule from the database file and determine if it is possible to reach the student in class. A staff member then takes a message directly to the student's classroom. The responsibility of informing family, friends, schools and day care centers of this service and its corresponding phone number rests with the student.

### New Student Orientation

Orientation is designed to assist new students in making a successful transition into the University. The orientation programs include information on UNM-Los Alamos' services and policies, academic advisement, registration and strategies for coping with college. Attendance at an orientation program is required for all beginning freshmen and transfer-freshmen students. It is an ideal time to begin exploring your new environment. The program is coordinated by the Student Services Office, located in the lower level of Building 2, (505) 662-0332.

### Student Attendance/Class Absences

Students are expected to attend all meetings of the classes in which they are enrolled. Absences due to illness, or to authorized University activity such as field trips, athletic trips, etc., are to be reported by the student to his/her instructor(s). If a student is unable to contact his/her instructor(s), the student should leave a message with the Office of Instruction. The reporting of absences does not relieve the student of responsibility for missed assignments, exams, etc. The student is to take the initiative in arranging with his/her instructor(s) to make up missed work, and it is expected that the faculty member will cooperate with the student in reasonable arrangements in this regard. Verification (such as doctor's note, hospital billing, military orders, death notices, etc.) of a student's report of absence should be provided on request. The Office of Instruction is located in Building 1, (505) 662-0331.

### The UNM Directory

A directory listing departments, faculty and staff members, as well as each student's local and home address, telephone number, academic classification and University of New Mexico e-mail address, is published by Computer and Information Resources and Technology (CIRT). Students can request that their listing be deleted from the directory by completing a form at the Student Services Office in the lower level of Building 2. The directory is also published online at <http://www.unm.edu/phone.html>.

## Degrees and Certificates offered

### DEGREES

#### **Associate of Arts:**

Early Childhood Multicultural Education  
Liberal Arts  
Pre-Business Administration  
Southwest Studies  
Studio Art

#### **Associate of Sciences:**

Environmental Science  
Pre-Engineering  
Science

#### **Associate of Applied Science:**

Business/Marketing  
Computer Science  
Digital Media Arts  
Electro Mechanical Technology  
Financial Accounting  
General Studies  
Hospitality Administration/Management  
Network Administration  
Office Communications and Technology  
Technical Support  
Web Technologies

### CERTIFICATES

Business/Marketing  
Computer Science  
Digital Media Arts  
Early Childhood Multicultural Education  
Electro Mechanical Technology  
Environmental Science  
Financial Accounting  
Hospitality Administration/Management  
Materials Science Technology  
Network Administration  
Office Communications and Technology  
Southwest Studies  
Studio Art  
Technical Support  
Web Technologies

## Associate Degrees and Certificates

The Associate of Arts and Associate of Science degrees are designed for students who intend to transfer to a four-year college or university, with the transfer of credits subject to the receiving institution's policies. Generally, institutions within the state have articulated courses and programs to effect an easy transition.

The Associate of Applied Science degree is designed to provide employment skills for the student. While not usually intended for transfer, specific courses within the degree may transfer depending on the receiving institution. Students planning to transfer to a four-year institution should confer with an academic advisor regarding transferability. The University of New Mexico has adopted a Core Curriculum which all students must complete as part of a UNM baccalaureate program.

The Core consists of approximately thirty-seven hours of courses in seven areas of study, with some noted exceptions. Students may apply AP or CLEP credit to the Core requirements. Departments and colleges may restrict student choices within the Core to meet departmental and college degree requirements.

A grade of C (not C-) in each course is required to fulfill the requirements of the Core Curriculum. See page 31 of the UNM 2003-2005 Catalog for complete details regarding the Core Curriculum.

Certificates in many programs are designed primarily for students not currently pursuing an associate degree. Courses taken as part of a certificate program are accepted toward an associate degree in that field.

All degrees and certificates offered by UNM-Los Alamos are listed. This list may not be complete, because this is a two-year catalog and program development is ongoing. Students should check with an academic advisor, curriculum coordinator, or division head for program changes.

All courses listed, except those marked with a "T" suffix, carry full University of New Mexico credit. Courses marked with a "T" suffix, although designed for credit on the Los Alamos Campus only, may transfer to other institutions, including UNM Albuquerque Campus, upon petition for approval from the appropriate department and the degree-granting college.

### **Pre-Professional Course Work**

For students seeking a career in the health sciences (i.e., nursing, pharmacy, physical/occupational therapy), UNM-LA offers the first two years of study through individual course work. Students are advised to meet with an advisor to customize an individual program of study.

The procedures and policies regarding graduation can be found under "Graduation" in Academic Regulations.

## General Education and Program Requirements

Associate degree curricula require a variety of courses to broaden students' understanding of the world as well as prepare students for employment or advanced study in their fields. Curricula therefore stress the student's major subject, but also include General Education courses under seven general headings:

- 1. Writing and Speaking: Communication and Journalism, English, Philosophy**
- 2. Humanities: American Studies, History, Religious Studies, Literature, Philosophy**
- 3. Social and Behavioral Sciences: Psychology, Economics, Geography, Political Science, Sociology, Anthropology**
- 4. Physical & Natural Sciences: Astronomy, Chemistry, Earth and Planetary Science (geology), Environmental Science, Physics, Biology, Natural Sciences, Anthropology**
- 5. Mathematics: Mathematics and Statistics**
- 6. Foreign Language: Spanish and Portuguese, Russian, French, German, Japanese, Sign Language**
- 7. Fine Arts: Art History, Art Studio, Film, Music, Theater, Studio Courses**

General education requirements vary for different majors (from college to college). Please follow the appropriate recommendations for degree programs. Advisors can assist students with their selections.

### Associate Degree and Certificate Program Requirements

Before a degree and/or certificate program is granted by UNM-Los Alamos students must complete the following requirements:

- 1. Complete the number of credit hours and specific course requirements as outlined for the degree or certificate.**
- 2. Earn a minimum of 15 credit hours for the degree and/or 9 credit hours for the certificate in residence at UNM-Los Alamos.**
- 3. Complete all required coursework for the degree or certificate with a minimum of 2.0 cumulative grade point average (GPA) except as noted for specific programs.**
- 4. No basic skills courses (e.g., IS-E 010T, IS-E 100) are accepted toward the number of credit hours required for graduation.**

*\* The majority of employers require a 2.0, or "C" (not a "C-") in each class for tuition reimbursement purposes.*

*Note: UNM degree programs require a 2.0, a "C" (not a "C-") in each course to be used to satisfy a Core Curriculum requirement.*

# Associate of Arts in Early Childhood Multicultural Education

## About the Program

The Early Childhood Multicultural Education program is designed for individuals who wish to work in the field and/or continue their studies towards a baccalaureate degree. The baccalaureate program at the University of New Mexico in ECME leads to licensure for teachers working with children from birth to age eight. This associate of arts degree, plus experience, meets the requirements for qualifying as a center director as specified in the New Mexico Child Care Facilities Licensing Regulations. The program addresses the seven general early child education competency areas. Students seeking to transfer are encouraged to consult with an academic advisor.

## Specific Requirements

### 1. A minimum of 67 credit hours with a minimum grade point average of 2.0.

At least 15 of 67 credit hours must be UNM-LA Catalog credit courses taken in residence.

### 2. Writing and Speaking (9 credit hours)

Engl 101: Composition I: Exposition (3)  
Engl 102: Composition II: Analysis and Argument (3)  
C & J 130: Public Speaking (3)

### 3. Mathematics (3 credit hours)

Stat 145: Introduction to Statistics (3)

### 4. Laboratory Sciences (8 credit hours)

Select from the following:  
Biol 110/112L: Biology/Biology Laboratory (Non-Majors) (3/1)  
Biol 201: Molecular and Cell Biology (4)  
Biol 202: Genetics (4)  
Chem 111L: Elements of General Chemistry (4)  
Chem 121L: General Chemistry (4)  
Chem 122L: General Chemistry (4)  
Astro 101/111L: Introduction to Astronomy/Astronomy Laboratory (3/1)  
Physcs 102/112L: Introduction to Physics/Physics Laboratory (3/1)  
E & PS 101/105L: Physical Geology/Physical Geology Laboratory (3/1)  
Env Sci 101/102L: The Blue Planet/Blue Planet Lab (3/1)

### 5. Social/Behavioral Sciences (6 credit hours)

Select from the following:

Anth 130: Cultures of the World (3)  
Anth 238: Cultures of the Southwest (3)  
Econ 105: Introductory Macroeconomics (3)  
Econ 106: Introductory Microeconomics (3)  
Pol Sc 200: American Politics (3)  
Psych 105: General Psychology (3)  
Soc 101: Introduction to Sociology (3)

### 6. Humanities/Fine Arts (9 credit hours)

Select from the following:

Art Hi 101: Introduction to Art (3)  
Engl 150: The Study of Literature (3)  
Engl 206: Topics in Popular Literature (3)  
Engl 211: Topics in Literature (3)  
Hist 101: Western Civilization (3)  
Hist 102: Western Civilization (3)  
Hist 161: History of the United States (3)  
Hist 162: History of the United States (3)  
Hist 260: History of New Mexico (3)  
Mus Ed 298: Music for Elementary Teachers (3)  
Phil 156: Reasoning and Critical Thinking (3)  
Thea 122: Introduction to Theatre (3)

### 7. Foreign Language (3 credit hours)

### 8. Core Courses (29 credit hours)

ECME 101: Child Growth, Development and Learning (3)  
ECME 103: Health, Safety and Nutrition (2)  
ECME 111: Family and Community Collaboration I (3)  
ECME 115: Guiding Young Children (3)  
ECME 117: Curriculum Development and Implementation I (3)  
ECME 117L: Curriculum Development and Implementation Practicum I (2)  
ECME 202: Introduction to Reading and Literacy Development (3)  
ECME 217: Curriculum Development and Implementation II (3)  
ECME 217L: Curriculum Development and Implementation Practicum II (2)  
ECME 220: Assessment of Children and Evaluation of Programs I (3)  
ECME 230: Professionalism (2)

**Total credit hours = 67**

*Note: Courses designated with the Suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to the UNM Albuquerque Campus, and will not be accepted toward the degree.*



## Certificate in Early Childhood Multicultural Education

The Certificate in Early Childhood Multicultural Education is designed as a basic professional preparation program for students who wish to work with children from birth through age eight in various inclusive settings such as K-3, Head Start, child care, and home care providers, teachers, assistants, and administrators. This competency based program will provide education in the theories and practices of child development and early childhood education. As part of the certificate, students will complete the academic requirements for the Child Development Associate (CDA) credential. All courses completed in this program are fully transferable into the Associate of Arts Degree program.

**A minimum cumulative grade point average of 2.0 is required in all courses.**

Engl 101: Composition I: Exposition (3)  
ECME 101: Child Growth, Development and Learning (3)  
ECME 103: Health, Safety and Nutrition (2)  
ECME 111: Family and Community Collaboration I (3)  
ECME 115: Guiding Young Children (3)  
ECME 117: Curriculum Development and Implementation I (3)  
ECME 117L: Curriculum Development and Implementation Practicum I (2)  
ECME 202: Introduction to Reading and Literacy Development (3)  
ECME 217: Curriculum Development and Implementation II (3)  
ECME 217L: Curriculum Development and Implementation Practicum II (2)  
ECME 220: Assessment of Children and Evaluation of Program (3)  
ECME 230: Professionalism (2)

**Total credit hours = 32**



## Associate of Arts in Liberal Arts

### About the Program

The Associate of Arts in Liberal Arts is a degree program for students who desire a broad background and comprehensive grounding in the Arts and Humanities. As a terminal degree, it will provide students with a basic educational framework of value in a variety of fields including the arts, education, research, and business. As a transfer degree, its earned credits are the equivalent of the first two years of course work in the College of Arts and Sciences, preparing students to choose a major field of study for a bachelor's degree.

### Specific Requirements

#### 1. A minimum of 66 credit hours with a minimum grade point average of 2.0.

At least 15 of these 66 hours must be UNM-LA catalog credit courses taken in residence.

#### 2. Writing and Speaking (9 credit hours)

including:

Engl 101: Composition I: Exposition (3)

Engl 102: Composition II: Analysis & Argument (3)

*Select from the following:*

Engl 219: Technical Writing (3)

Engl 220: Expository Writing (3)

C & J 130: Public Speaking (3)

Phil 156: Reasoning and Critical Thinking (3)

#### 3. Fine Arts (6 credit hours)

*Select from the following:*

Art History 101: Introduction to Art (3)

Art History 201: History of Art I (3)

Art History 202: History of Art II (3)

MA 210: Introduction to Film (3)

Music 139: Music Appreciation (3)

Music 140: Music Appreciation (3)

Thea 122: Theatre Appreciation (3)

*or*

an approved studio course

#### 4. Mathematics or Statistics (4 credit hours)

Math 107: Problems in College Algebra (1)

*and*

Math 121: College Algebra (3)

*or higher*

#### 5. Physical and Natural Sciences (7-8 credit hours)

Select two courses, one of which must include a lab, from the UNM Core Curriculum in physical and natural sciences.

#### 6. Social and Behavioral Sciences (6-9 credit hours)

Select courses from UNM Core Curriculum in social and behavioral sciences.

#### 7. Humanities (6-9 credit hours)

Select courses from the UNM Core Curriculum in Humanities.

#### 8. Foreign Language (3 credit hours)

Select one course from any of the 100- or 200-level non-English language offerings as specified in the UNM Core Curriculum Foreign Language.

#### 9. General Electives (22-23 credit hours)

Must complete 22-23 credit hours of academic electives number 101 or higher. Students are encouraged to consult with an academic advisor regarding selections.

**A minimum of 20 credit hours must be completed at the 200-level or above.**

*Note: Courses designated with the Suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to the UNM Albuquerque Campus, and will not be accepted toward the degree.*



## Associate of Arts in Pre-Business Administration

### About the Program

This degree program is designed to introduce students to the field of Business Administration/Management and to provide the first two years of the Bachelor of Business Administration program offered by the Robert O. Anderson Schools of Management at UNM Albuquerque Campus. All of the required courses for this associate degree program transfer to that BBA program, and students will be admitted to junior status if the following conditions are met:

- the student has a 2.0 cumulative GPA overall (see #1 below)
- the student has a minimum grade of C (not C-) in each course listed under the Specific Requirements shown in pre-admission course work
- there are no waivers or substitutions in the printed curriculum of the Associate of Arts in Pre-Business Administration
- the student is eligible to enroll at UNM Albuquerque Campus.

### Specific Requirements

1. A minimum of 65 credit hours with a minimum grade point average of 2.4 in the UNM/ASM Core Curriculum areas.

At least 15 of these 65 hours must be UNM-LA catalog credit courses taken in residence.

2. Writing and Speaking (9 credit hours)

Engl 101: Composition I: Exposition (3)  
Engl 102: Composition II: Analysis & Argument (3)  
C & J 130: Public Speaking (3)

3. Mathematics and Statistics (6-7 credit hours)

Math 107: Problems in College Algebra (1)

*and*

Math 121: College Algebra (3)

*or*

Math 150: Pre-Calculus Mathematics (3)

*and*

Math 162: Calculus (4)

*or*

Math 180: Elements of Calculus (3)

4. Physical/Natural Sciences (7 credit hours)

Select two courses, plus one corresponding laboratory (L course) from the following:

Physcs 102: Introduction to Physics (3)

Physcs 102L: Physics Laboratory (1)  
Physcs 160: General Physics (3)  
Physcs 160L: General Physics Laboratory (1)

Biol 110: Biology for Non-Majors (3)  
Biol 112L: Biology Laboratory for Non-Majors (1)  
Biol 123: Biology for Health-Related Sciences and Non-Majors (3)  
Biol 124L: Biology for Health-Related Sciences and Non-Majors Laboratory (1)  
Biol 201: Molecular and Cell Biology (4)

Astr 101: Introduction to Astronomy (3)  
Astr 101L: Astronomy Laboratory (3)

Chem 111L: Elements of General Chemistry (4)  
Chem 121L: General Chemistry (4)  
Chem 122L: General Chemistry (4)

E & PS 101: How the Earth Works - An Introduction to Geology (3)  
E & PS 105L: Physical Geology Laboratory (1)

Nat Sc 261L: Physical Science (4)  
Nat Sc 262L: Life Science (4)  
Nat Sc 263L: Environmental Science (4)

5. Social/Behavioral Sciences (15 credit hours)

#### Must include:

Econ 105: Introductory Macroeconomics (3)  
Econ 106: Introductory Microeconomics (3)  
Psych 105: General Psychology (3)

*or*

Soc 101: Introduction to Sociology (3)  
— plus two more course from: Anthropology, Economics, Geography, History, Political Science, Psychology, or Sociology

6. Humanities (6 credit hours)

#### Select from the following:

Am St 186: Introduction to Southwest Studies (3)  
Clscs 107: Greek Mythology (3)  
Clscs 204: Greek Civilization (3)  
Engl 150: The Study of Literature (3)  
Hist 101: Western Civilization (3)  
Hist 102: Western Civilization (3)  
Hist 161: History of the United States to 1877 (3)  
Hist 162: History of the United States Since 1877 (3)

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## Associate of Arts in Pre-Business Administration, continued

Phil 101: Introduction to Philosophical Problems  
(3)

Relig 107: Living World Religions (3)

### 7. Foreign Language (3 credit hours)

### 8. Fine Arts (3 credit hours)

*Select from the following:*

Art Hi 101: Introduction to Art I (3)

Art Hi 201: History of Art I (3)

Art Hi 202: History of Art II (3)

Music 139: Music Appreciation (3)

Music 140: Music Appreciation (3)

Thea 122: Theatre Appreciation (3)

*or*

A three hour studio course from the Department of Art or Media Arts.

### 9. Computer Science (3 credit hours)

CS 150L: Computing for Business Students (3)

### 10. Management (6 credit hours)

Mgt 202: Principles of Financial Accounting (3)

Mgt 290: Introduction to Business Statistics (3)

### 11. Electives (6-7 credit hours)

*May include:*

Mgt 113: Management: An Introduction (3)

Stat 145: Introduction to Statistics (3)

*May not include:*

Introductory Studies courses

Physical Education courses

Students planning on transferring to the Anderson Schools of Management on the Albuquerque campus should be familiar with and must meet the UNM/ASM Core Curriculum Requirements. These Core Curriculum Requirements are listed on page 31 of the UNM 2003-2005 Catalog.

*NOTE: Courses designated with a suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to UNM Albuquerque Campus, and will not be accepted toward the degree.*



## Associate of Arts in Southwest Studies

### About the Program

The Associate of Arts degree in Southwest Studies is designed as a baccalaureate transfer program for students who wish to gain a broad education in the Humanities within a context of cultural pluralism. Serving as a terminal degree, the program will provide students with valuable knowledge of local and regional history, language, art, ecology, anthropology, and literature of the three cultures of the Southwest. Possible career options include employment in museums, art galleries, and cultural and research organizations.

A current and complete list of approved UNM Core Curriculum and other course selections is available from and should be discussed with the Arts and Sciences Division Head or an academic advisor.

### Specific Requirements

#### 1. A minimum of 67 credit hours with a minimum grade point average of 2.0.

At least 15 of these 67 hours must be UNM-LA catalog credit courses taken in residence.

#### 2. Writing and Speaking (12 credit hours)

Engl 101: Composition I: Exposition (3)  
Engl 102: Composition II: Analysis & Argument (3)  
C & J 130: Public Speaking (3)  
Choose one of the following courses;  
C & J 115: Communication Across Cultures (3)  
Phil 156: Reasoning and Critical Thinking (3)

#### 3. Mathematics and Statistics (3 - 4 credit hours)

Math 107: Problems in College Algebra (1)  
*and*  
Math 121: College Algebra (3)  
*or*  
Stat 145: Introduction to Statistics (3)

#### 4. Physical and Natural Sciences (10 credit hours minimum)

Choose 2 courses, one of which must include a lab, from:

Anth 121L: Archeological Methods and Theory (4)  
Astr 101/101L: Introduction to Astronomy/  
Lab (3,1)  
Biol 110/112L: Biology for Non-Majors/  
Lab (3,1)  
Biol 123: Biology for Health-Related  
Sciences and Non-Majors (3)

Biol 124L: Biology for Health-Related  
Sciences and Non-Majors Laboratory (1)  
Biol 201: Molecular and Cell Biology (4)  
E&PS 101/105L: How the Earth Works:  
An Introduction to Geology/Lab (3,1)  
Geog 101/105L: Physical Geography (3,1)

Choose any other 3- or 4-hour course not already selected from the current UNM Physical and Natural Sciences Core Curriculum.

#### 5. Social/Behavioral Sciences (9 credit hours)

Am St 182: Introduction to Environment, Science, and  
Technology (3)  
Am St 185: Introduction to Race, Class, and Ethnicity  
(3)

Choose any other course from the current UNM Social and Behavioral Sciences Core Curriculum (3)

#### 6. Humanities (12 credit hours)

Am St 186: Introduction to Southwest Studies (3)  
Am St 285: American Life and Thought (3)  
Hist 260: History of New Mexico (3)

Choose any other course from the current UNM Humanities Core Curriculum (3)

*or*

#### Choose one from:

Engl 211: Topics (any with a Southwestern  
focus) (3)  
Engl 298: Workshop in Literature  
or Writing  
(any with a Southwestern emphasis) (3)

#### 7. Fine Arts (6 credit hours)

#### Choose 3 hours from:

Art Hi 251: Artistic Traditions of the  
Southwest (3)  
Music 113: Mexican Guitar (1)  
Music 114: Mexican Guitar (1)  
FA 229: Santa Fe Opera (3)  
Dance 169: Flamenco I (2-6)  
Gen St 193T: Beginning Spanish Colonial  
Style Carving (3)

*Continued on page 46*

## Associate of Arts in Southwest Studies, continued

Choose any other course not already selected from the current UNM Fine Arts Core Curriculum (3).

### 8. Modern Languages (6 credit hours)

Span 101: Elementary Spanish (3)

Span 102: Elementary Spanish (3)

### 9. Southwest Studies (9 credit hours)

Am St 286: Associate Seminar on the Southwest (3)

#### Choose two courses from:

Am St 184: Introduction to Popular Culture (3)

Am St 251: The Chicano Experience (3)

Am St 252: The Native American Experience (3)

Anth 237: Indians of New Mexico (3)

Nat Am 150: Introduction to Native American Studies (3)

Am St 200: Topics:

- College Oral Traditions
- Traditional Folk Music of Northern New Mexico and Southern Colorado
- Genealogy Studies
- History of the Camino Real
- Others as approved by UNM Southwest Studies Department Chair and UNM-LA Division Head

*NOTE: Courses designated with a suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to UNM Albuquerque Campus. "T" courses will not count toward this Associate's degree unless specifically states in the degree requirements.*



## Certificate in Southwest Studies

The American Southwest is a unique, multicultural setting with a rich and varied history. UNM–Los Alamos offers a certificate program in this area to help students understand, appreciate, and preserve the cultural setting of the Southwest.

Art Hi 251: Artistic Traditions of the Southwest (3)  
Am St 186: Introduction to Southwest Studies (3)  
C & J 130: Public Speaking (3)  
Engl 101: Composition I: Exposition (3)  
Hist 260: History of New Mexico (3)  
Math 107: Problems in College Algebra (1)

*and*

Math 121: College Algebra or higher (3)

*or*

Stat 145: Introduction to Statistics (3)  
Physical and Natural Sciences (4)

Choose one course including related lab from:

Anth 121L:

Archeological Methods and Theory (4)

Astr 101/101L: Introduction to Astronomy/Lab  
(3,1)

Biol 110/112L: Biology for Non-Majors/Lab (3,1)

Biol 123: Biology for Health-Related Sciences and  
Non-Majors (3)

Biol 124L: Biology for Health-Related Sciences  
and Non-Majors Laboratory (1)

Biol 201: Molecular and Cell Biology (4)

E&PS 101/105L: How the Earth Works:  
An Introduction to Geology/Lab (3,1)

Geog 101/105L: Physical Geography (3,1)

Span 101: Elementary Spanish (3)

Social and Behavioral Sciences (3)

Choose any course from the current UNM Social and  
Behavioral Sciences Core Curriculum Elective (3).

Choose any course(s) from the current

UNM–Los Alamos catalog.

Recommendations are:

Am St: any not already chosen

Engl 102: Composition II: Analysis and Argument  
(3)

C & J 115: Communication Across Cultures (3)

**Total credit hours = 34**

## The Southwest Collection

The Southwest Collection was acquired several years ago as a special collection for the library to help support the Southwest Studies degree program offered at UNM-Los Alamos.

A grant awarded to the library in January 2001 by the National Endowment for the Humanities has allowed the library to become formally cataloged. Records for all items in the collection will be easily accessible through the on-line catalog.

Since these are special collection

materials, library staff will still have to retrieve the items from the collection for patrons. Books designated as “circulating” can be checked out for a period of two weeks.

Books designated as “non-circulating” (rare and delicate items) can only be used in the library. Patrons wishing to use non-circulating books must make an appointment by calling the library at least 24 hours in advance.

# Associate of Arts in Studio Art

## About the Program

This program provides students with the first two years of study toward a Bachelor's Degree in Fine Arts (BFA) at UNM Albuquerque Campus. Courses and course sequences are designed to encourage the student's power of observation and aesthetic awareness. Simultaneously the student is taught technique and craft with which to use these powers creatively.

There are a variety of career opportunities in the Arts. Each artist's career path is unique, which is part of the freedom that comes with being an artist. Most visual artists work individually in the studio. Other career options such as teaching, museum work and free-lance design are generally achieved with a higher degree.

## Specific Requirements

### 1. A minimum of 66 credit hours with a minimum grade point average of 2.5.

At least 15 of these 66 hours must be UNM-LA catalog credit courses taken in residence with a minimum grade point average of 3.0 in Art Studio/Art History courses.

### 2. Writing and Speaking (9 credit hours)

Engl 101: Composition I: Exposition (3)  
Engl 102: Composition II: Analysis & Argument (3)  
Elective: English course above 102

### 3. Mathematics and Statistics (6 credit hours)

*Choose from the following:*

Math 107: Problems in College Algebra (1)  
*and*  
Math 121: College Algebra (3)  
Math 129: A Survey of Mathematics (3)  
Math 150: Pre-Calculus Mathematics (3)  
Math 162: Calculus I (4)  
Math 163: Calculus II (4)  
Math 180: Elements of Calculus I (3)  
Stat 145: Introduction to Statistics (3)

### 4. Behavioral Science/Social Science (3 credit hours)

### 5. Computer Science, Computer Technology or Information Technology (3 credit hours)

### 6. Electives (3 credit hours)

*Select from one of the following groups:*

Communication and Journalism  
Foreign Language  
American Studies  
Philosophy

### 7. History (6 credit hours)

Hist 101: Western Civilization (3)  
Hist 102: Western Civilization (3)

### 8. Art History (9 credit hours)

Art Hi 201: History of Art I (3)  
Art Hi 202: History of Art II (3)  
Art Hi 250: Modern Art (3)

### 9. Art Studio Core courses (10 credit hours)

Art St 106: Drawing I (3)  
Art St 121: Two-Dimensional Design (3)  
Art St 122: Three-Dimensional Design (3)  
Art St 298T: Topics: Portfolio Preparation and Presentation (1)

### 10. Art Studio Elective courses (12 credit hours)

*Select two from group A:*

Art St 130: Introduction to Electronic Art (3)  
\*Art St 187: Photography I (3)  
\*Art St 205: Drawing II (3)  
Art St 206: Pastel – Introduction to an Abrasive Color Medium (3)  
\*Art St 207: Painting I (3)  
Art St 287: Black and White Photography (3)  
Art St 288: Introduction to Color Photography (3)  
Art St 298T: Topics (1-3)

*Select two from group B:*

Art St 123: Shop Foundations (2)  
\*Art St 157: Small Scale Metal Construction I (3)  
\*Art St 168: Ceramics I (3)  
\*Art St 213: Sculpture I (3)  
Art St 216: Raku - A Ceramic Low-Firing Reduction Process (3)  
Art St 257: Small Scale Metal Construction II (3)  
Art St 268: Ceramics II (3)

*\*Required courses for a BFA*

### 11. General Electives (5 credit hours)

Courses in Music or Film are recommended to fulfill the Fine Arts elective requirements for a BFA. A maximum of 2 hours of Physical Education may count toward the degree.

*NOTE: Courses designated with a suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to UNM Albuquerque Campus, and will not be accepted toward the degree.*



## Certificate in Studio Art

The Studio Art Certificate program enables students to concentrate on specific areas of study within this field. Students are required to take both academic and studio art classes to fulfill the certificate requirements. Like the Associate of Arts in Studio Art, courses and course sequences are designed to encourage the student's power of observation and aesthetic awareness. Simultaneously students are taught technique and craft to use these powers creatively.

**A minimum cumulative grade point average of 2.0 is required in all courses.**

Art Hi 201: History of Art I (3)  
Art Hi 202: History of Art II (3)  
Art Hi 250: Modern Art (3)  
Art St 106: Drawing I (3)  
Art St 121: Two-dimensional Design (3)  
Art St 122: Three-dimensional Design (3)  
Art St 298T: Topics: Portfolio Preparation and Presentation (1)  
Art Studio approved electives (11 credit hours)  
    Art St 123, Art St 157, Art St 168, Art St 187, Art St 205,  
    Art St 206, Art St 207, Art St 213, Art St 216, Art St 257,  
    Art St 268, Art St 287, Art St 288  
Engl 101: Composition I: Exposition (3)  
Hist 101: Western Civilization (3)

**Total credit hours = 36**



## Associate of Arts in Environmental Science

### About the Program

This degree represents two years of study in the field of Environmental Science. The curriculum provides the mathematical and technical course work that forms the basis for problem solving in this important area. Students with this degree are well qualified to enter the work force as technicians or to continue their studies to the baccalaureate level.

(Program under revision)

### Specific Requirements

#### 1. A minimum of 67 credit hours with a minimum grade point average of 2.0.

At least 15 of these 67 hours must be UNM-LA catalog credit courses taken in residence.

#### 2. Writing and Speaking (6 credit hours)

Engl 101: Composition I: Exposition (3)  
Engl 102: Composition II: Analysis & Argument (3)

#### 3. Mathematics and Statistics (11 credit hours)

Stat 145: Introduction to Statistics [An Introduction to Probability and Statistics] (3)  
Math 162: Calculus I (4)  
Math 163: Calculus II (4)

#### 4. Physical/Natural Sciences (26 credit hours)

Biol 201: Molecular and Cell Biology (4)  
Chem 121L: General Chemistry (4)  
Chem 122L: General Chemistry (4)  
Chem 253L: Quantitative Analysis (4)  
Physcs 160: General Physics (3)  
Physcs 160L: General Physics Laboratory (1)  
Physcs 161: General Physics (3)  
Physcs 161L: General Physics Laboratory (1)  
Physcs 167: Problems in General Physics (1)  
Physcs 168: Problems in General Physics (1)

#### 5. Environmental Science courses (15 credit hours)

Engr-F 130: Introduction to Environmental Science I (3)  
Engr-F 131: Introduction to Environmental Science II (3)  
Engr-F 201: Fundamentals of Hazardous Materials (3)  
Engr-F 202: Introduction to Hazardous Waste Management (3)  
Engr-F 222: Introduction to Radioactive Materials (3)

#### 6. Computer Science, Computer Technology, or Information Technology (3 credit hours)

#### 7. Fine Arts/Humanities/Social Sciences (6 credit hours)

*NOTE: Courses designated with a suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to UNM Albuquerque Campus, and will not be accepted toward the degree.*

## Certificate in Environmental Science

(Program Under Revision)

This certificate represents completion of a course of studies related to the field of Environmental Science. It may be used as a terminal certificate with subsequent entrance into the work force, or it may form the basis for additional course work leading to an associate degree in other fields.

Chem 121L: General Chemistry (4)  
Chem 122L: General Chemistry (4)  
Engl 101: Composition I: Exposition (3)  
Engr-F 130: Introduction to Environmental Science I (3)  
Engr-F 131: Introduction to Environmental Science II (3)  
Engr-F 201: Fundamentals of Hazardous Materials (3)  
Engr-F 202: Introduction to Hazardous Waste Management (3)  
Math 123: Trigonometry (3)  
Math 150: Pre-Calculus Mathematics (3)  
Physcs 102: Introduction to Physics (3)

*or*

Physcs 160: General Physics (3)

**Total credit hours = 32**

# Associate of Science in Pre-Engineering

## About the Program

This program represents the course work for the first two years of the baccalaureate degree at UNM Albuquerque Campus. The courses are pertinent to all fields of engineering: mechanical, chemical, nuclear, civil, and computer. Students with this degree are qualified to enter the work force as technicians in various engineering fields or to continue their studies to the baccalaureate level.

## Specific Requirements

### 1. A minimum of 68 credit hours with a minimum grade point average of 2.0.

At least 15 of these 68 hours must be UNM-LA catalog credit courses taken in residence.

### 2. Writing and Speaking (6 credit hours)

Engl 101: Composition I: Exposition (3)  
Engl 102: Composition II: Analysis & Argument (3)

### 3. Engineering (12 credit hours)

CS 151L: Computer Programming Fundamentals for Non-Majors (3)  
C E 202: Engineering Statics (3)  
E CE 203: Circuit Analysis I (3)  
ME 160L: Mechanical Engineering Design I (3)

or

CT 111LT: Introduction to Computer Aided Design and Drafting (3)

or

IT 210LT: Introduction to Geographic Information Systems (GIS) (3)

or

E CE 213: Circuit Analysis II (3)

### 4. Physical/Natural Sciences (23 credit hours)

Chem 121L: General Chemistry (4)  
Chem 122L: General Chemistry (4)  
Phycs 160: General Physics (3)  
Phycs 160L: General Physics Laboratory (1)  
Phycs 161: General Physics (3)  
Phycs 161L: General Physics Laboratory (1)  
Phycs 167: Problems in General Physics (1)  
Phycs 168: Problems in General Physics (1)  
Phycs 262: General Physics (3)  
Phycs 262L: General Physics Laboratory (1)  
Phycs 267: Problems in General Physics (1)

### 5. Mathematics and Statistics (15 credit hours)

Math 162: Calculus I (4)  
Math 163: Calculus II (4)  
Math 264: Calculus III (4)  
Math elective (3) higher than Math 264

### 6. Humanities/Social Sciences (6 credit hours)

### 7. Computer Science (3 credit hours)

### 8. Electives (3 credit hours)

Should be selected with advisement from the College of Engineering

*NOTE: Courses designated with a suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to UNM Albuquerque Campus, and will not be accepted toward the degree.*



## Associate of Science in Science

### About the Program

This program represents the first two years of course work in general science with an emphasis in physics, chemistry, and biology. Completion of this degree will enable students to transfer to a four-year institution for additional studies leading to a bachelor's degree. It will also provide background studies for students wishing to enter the work force as technicians in science and/or medical services.

### Specific Requirements

**1. A minimum of 67 credit hours with a minimum grade point average of 2.0.**

At least 15 of these 67 hours must be UNM-LA catalog credit courses taken in residence.

**2. Writing and Speaking (6 credit hours)**

Engl 101: Composition I: Exposition (3)  
Engl 102: Composition II: Analysis & Argument (3)

**3. Physical/Natural Sciences (31 credit hours)**

Biol 201: Molecular and Cell Biology (4)  
Biol 202: Genetics (4)  
Chem 121L: General Chemistry (4)  
Chem 122L: General Chemistry (4)  
Physcs 160: General Physics (3)  
Physcs 160L: General Physics Lab (1)  
Physcs 161L: General Physics Lab (1)  
Physcs 167: Problems in General Physics (1)  
Physcs 168: Problems in General Physics (1)  
Physcs 262: General Physics (3)  
Physcs 262L: General Physics Lab (1)  
Physcs 267: Problems in General Physics (1)

**4. Mathematics and Statistics/Computer Science (11-12 credit hours)**

Math 162: Calculus I (4)  
Math 163: Calculus II (4)  
Computer Science (3)

**5. Humanities/Social Sciences (6 credit hours)**

**6. Science Electives (12 credit hours)**

Students should select courses which compose a meaningful sequence of specialization.  
Students who are pursuing degrees in Chemistry or

Physics should take: Math 264: Calculus III (4)

**7. AS COP 209 (1-3): Evaluation of Arts and Sciences Cooperative Work Phase I**

May be used toward the degree for a maximum of three credit hours

Prerequisite: third or fourth semester standing and approval from the Science Curriculum Coordinator.

*NOTE: Courses designated with a suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to UNM Albuquerque Campus, and will not be accepted toward the degree.*



## Associate of Applied Science in Business/Marketing

### About the Program

This multidisciplinary degree program is designed for students preparing for a career in business, marketing, sales, and retail. The broad based curriculum emphasizes the use of microcomputers and their applications and focuses on the fundamentals of business and marketing. Students are also introduced to basic management principles.

### Specific Requirements

#### 1. A minimum of 66 credit hours with a minimum grade point average of 2.0.

At least 15 of these 66 hours must be UNM-LA catalog credit courses taken in residence.

#### 2. Writing and Speaking (6 credit hours)

Engl 101: Composition I: Exposition (3)  
And one of the following courses:  
Engl 102: Composition II: Analysis & Argument (3)  
Engl 119T: Technical Communications (3)  
Engl 219: Technical Writing (3)  
C & J 130: Public Speaking (3)  
C & J 221: Interpersonal Communication (3)  
*or*  
C & J 225: Small Group Communication (3)

#### 3. Fine Arts/Humanities/Social Sciences (6 credit hours)

#### 4. Mathematics and Statistics/Natural Science/ Behavioral Science (7 credit hours)

##### Must Include:

Math 107: Problems in College Algebra (1)  
*and*  
Math 121: College Algebra (3)

#### 5. Business Technology (24 credit hours)

Bus-Tc 202T: Business Applications  
on Microcomputers (3)  
Bus-Tc 203T: Business Communications (3)  
Bus-Tc 204T: Human Relations in Business (3)  
Bus-Tc 205T: Financial Information Processing and  
Decision Making (3)  
Bus-Tc 206T: Business Ownership and Marketing (3)  
Bus-Tc 218T: Business Law (3)  
Bus-Tc 264T: Word Processing I (3)  
Bus-Tc 274T: Word Processing II (3)

#### 6. Management (14 credit hours)

Mgt 101: Fundamentals of Accounting I (3)  
Mgt 101L: Fundamentals of Accounting I Lab (1)  
Mgt 102: Fundamentals of Accounting II (3)  
Mgt 102L: Fundamentals of Accounting II Lab (1)  
Mgt 113: Management: An Introduction (3)  
*and either*  
Mgt 233T: Principles of Marketing Management (3)  
*or*  
Mgt 234: Personnel Management (3)

#### 7. Computer Technology (3-4 credit hours)

CT 102LT: Introduction to Microcomputers  
on the PC (4)  
*or*  
CT 120LT: Introduction to Microcomputers  
on the Macintosh (3)

#### 8. Electives/Cooperative Work Phases (5-6 credit hours)

Bus-Tc 296LT: Business Technology Cooperative  
Work Phase 1, 2, 3 (1-3)  
Electives (3-5)

*NOTE: Courses designated with a suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to UNM Albuquerque Campus, and will not be accepted toward the degree.*



## Certificate in Business/Marketing

This certificate represents completion of a course of studies related to the field of Business Marketing. It may be used as a terminal certificate with subsequent entrance into the work force, or it may form the basis for additional course work leading to an associate's degree in other fields.

Bus-Tc 202T: Business Applications on Microcomputers (3)  
Bus-Tc 203T: Business Communication (3)  
Bus-Tc 204T: Human Relations in Business (3)  
Bus-Tc 205T: Financial Information Processing and Decision Making (3)  
Bus-Tc 206T: Business Ownership and Marketing (3)  
Bus-Tc 264T: Word Processing I (3)  
Bus-Tc 274T: Word Processing II (3)  
CT102LT: Introduction to Microcomputers on the PC (4)  
*or*  
CT 120LT: Introduction to Microcomputers on the Macintosh (3)  
Mgt 113: Management: An Introduction (3)  
Mgt 222: Introduction to Marketing (3)  
*or*  
Mgt 233: Principles of Marketing Management (3)  
Mgt 234: Personnel Management (3)

**Total credit hours = 33-34**



# Associate of Applied Science in Computer Science

## About the Program

This program provides students with a broad set of skills and knowledge in the basic areas of computer programming and computer science. The core requirements in mathematics, computer science, and electrical engineering cover the basic principles and methodologies of discrete mathematics, problem analysis and algorithm development, high-level programming languages, operating systems, computer architecture, and software engineering. Students completing this degree will be qualified for entry-level programming positions with skills of program design and code development, testing, maintenance, and analysis. Students will also be qualified to work as part of a software development team.

**Note: Students may earn a BS in CS at the UNM-LA campus in conjunction with the Upper Division and Graduate Office. The AAS in CS may be earned while working towards the BS in CS degree.**

### Computer Science Program Tracks

Students may select between two program tracks:

- **Transfer track:**

For students who expect to transfer to baccalaureate programs at four-year institutions in general and at UNM-Los Alamos and Albuquerque Campus in particular;

- **Terminal track:**

For students interested in terminating with the Associate Degree from UNM-Los Alamos.

Please consult an UNM-Los Alamos advisor for a list of recommended courses or for more information about curriculum differences between these two tracks.

### Specific Requirements

**1. A minimum of 65 credit hours with a minimum grade point average of 2.0.**

At least 15 of these 65 hours must be UNM-LA catalog credit courses taken in residence. A maximum of 6 CR/NC hours in technical electives only may count towards the degree. Please see an advisor regarding eligibility of a particular CR/NC class.

Students must have completed Math 123, Math 150, and CS 101LT or CS 102LT before enrolling in core computer science courses.

Students planning to transfer to the UNM Computer Science Department should contact an UNM-Albuquerque advisor regarding the transferability of UNM-Los Alamos Computer Science courses.

**2. Writing and Speaking (9 credit hours)**

Engl 101: Composition I: Exposition (3)  
Engl 102: Composition II: Analysis & Argument (3)  
Engl 219: Technical Writing (3)

*or*

C & J: any course (3)

**3. Computer Science (23 credit hours)**

*An overall computer course GPA of at least 2.5 is required, with a C (not C-) or better in each computer course taken.*

CS 152L: Computer Programming Fundamentals for Computer Science Majors (3)

CS 220LT: Systems Analysis and Design (3)

CS 241L: Data Organization (3)

CS 251L: Intermediate Programming (3)

CS 257L: Non-imperative Programming (3)

CS 259LT: Introduction to Object Oriented Programming (2)

CS 260LT: Introduction to Applied Software Engineering (2)

CS 261: Mathematical Foundations of Computing Science (3)

CS 293: Social and Ethical Issues in Computing (1)

**4. Electrical & Computer Engineering (4 credit hours)**

E CE 238L: Computer Logic Design (4)

**5. Humanities/Fine Arts/Social Science (6 credit hours)**

**6. Mathematics and Statistics/Natural Science/ Behavioral Science (12 credit hours)**

*must include:*

Math 162: Calculus I (4)

*or*

higher level

*Note: No mathematics classes which precede Math 162 will be accepted for credit toward this degree.*

**7. Technical Electives (11 credit hours)**

**For Terminal Track students:** technical electives are recommended according to the following guidelines:

*Continued on page 56*

## Associate of Applied Science in Computer Science, cont.

- Any CS course not required for the CS degree may be used as a technical elective, including CS Topics courses. Suggestions: CS 103LT, CS 151L, CS 160LT, CS 170LT, CS 180LT.

- Any CT or IT course may be used as a technical elective, including CT or IT Topics courses. A maximum of 9 credits from CT and IT is recommended.

Suggestions: IT 120LT, IT131LT, IT132LT, IT 147LT, IT 149LT, IT 150LT, IT 230LT, IT 231LT, CT 109LT, CT 111LT, CT 119LT,

- Engr-F 120L (from 1998-2000 catalog) or Engr-F 122L may be used as a technical elective.

- It is recommended that students count at most one of the following for credit:

CS 101LT: Introduction to Computing Science (4)

CS 102LT: Introduction to UNIX (1)

CT 101LT: Introduction to Computing on Microcomputers (1)

CT 102LT: Introduction to Microcomputers on the PC (4)

CT 105LT: Introduction to Macintosh (1)

CT 120LT: Introduction to Microcomputers on the Macintosh (3)

**For Transfer Track students:** refer to the UNM Albuquerque Campus catalog or an advisor for recommended technical electives.

**The following courses may be used toward the degree for a maximum of 3 credit hours:**

E Coop 109: Evaluation of Cooperative Education Work Phase 1 (1)

E Coop 110: Evaluation of Cooperative Education Work Phase 2 (1)

E Coop 209: Evaluation of Cooperative Education Work Phase 3 (1)

*NOTE: Courses designated with a suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to UNM Albuquerque Campus, and will not be accepted toward the degree.*

### Certificate in Computer Science

The intent of this program is to provide students with a set of skills and knowledge in the area of computer programming. The course requirements cover the basic principles and methodologies of discrete mathematics, problem analysis and algorithm development, high-level programming languages, and techniques for software engineering. Students completing this certificate will have the skills to do some entry-level code writing, code maintenance, and code testing. Students will also gain experience working as part of a software development team.

**A minimum cumulative grade point average of 2.5 is required in the Core Courses.**

**Core Requirements: (30 credit hours)**

E CE 238L: Computer Logic Design (4)

CS 152L: Computer Programming Fundamentals for Computer Science Majors (3)

CS 220LT: Systems Analysis & Design (3)

CS 241L: Data Organization (3)

CS 251L: Intermediate Programming (3)

CS 257L: Nonimperative Programming (3)

CS 259LT: Introduction to Object Oriented Programming (2)

CS 260LT: Introduction to Applied Software Engineering (2)

CS 261: Mathematical Foundations of Computing Science (3)

CS 293L: Social and Ethical Issues in Computing (1)

Engl 101: Composition I: Exposition (3)

**Technical Electives: (3 credit hours)**

*Choose from one of the following:*

CS 151L: Computer Programming Fundamentals for Non-Majors (3)

CS 170LT: Introduction to Visual Basic (3)

CS 180LT: Introduction to PERL (3)

**Total credit hours = 33**



# Associate of Applied Science in Digital Media Arts

## About the Program

This degree program instructs the student in graphics, animation and multimedia using digital tools — hardware and software — to produce visual content-based projects for screen display or the World Wide Web, for “land-based” traditional output or printing. It addresses simultaneously the impact of digital media on our culture and graphic design/visual problem-solving issues. Students are prepared for employment in the fields of graphic design, multimedia design, and web multimedia content.

### Specific Requirements

**1. A minimum of 65 credit hours with a minimum grade point average of 2.0.**

**2. Minimum grade of C (not C-) in each Core Course.**

At least 15 of these 65 hours must be UNM-LA catalog credit courses taken in residence. A maximum of 6 CR/NC hours in technical electives only may count toward the degree. Please see an advisor regarding eligibility of a particular CR/NC class.

**3. Writing and Speaking (9 credit hours)**

Engl 101: Composition I: Exposition (3)  
Engl 102: Composition II: Analysis & Argument (3)  
C & J 221: Interpersonal Communication (3)  
*or*  
C & J 225: Small Group Communication (3)

**4. Core Courses (26-28 credit hours)**

CT 105LT: Introduction to Macintosh (1)  
*or*  
CT 120LT: Introduction to Microcomputers on Macintosh (3)  
DMA 101LT: Introduction to Digital Imaging & Scanning (1)  
DMA 165LT: Digital Media Arts I (Photoshop) (3)  
DMA 166LT: Digital Media Arts II (Illustrator) (3)  
DMA 175LT: Digital Imaging and Photography (Photoshop) (3)  
DMA 203LT: Introduction to Desktop Publishing (3)  
DMA 240LT: Web Audio/Video (3)  
DMA 250LT: Web Animation and Interactive Multimedia Design (3)  
IT 145LT: Web Design Fundamentals: HTML and Style Sheets (3)  
IT 165LT: Introduction to Web Authoring (3)

**5. Mathematics and Statistics (3 credit hours)**

Math 150: Pre-Calculus Mathematics (3)  
*or*  
Stat 145: Introduction to Statistics (3)

**6. Physical/Natural Science (4 credit hours)**

*Select from the following:*  
Biol 110/112L, Chem 111L, Chem 121L, Chem 122L, Astr 101/101L, Physcs 102/102L, Physcs 160/160L, E & PS 101/105L, NS 261L, NS 262L, NS 263L

**7. Social/Behavioral Science (3 credit hours)**

*Select from the following:*  
Anth 130, Econ 105, Econ 106, Pol Sc 200, Psych 105, Soc 101

**8. Humanities/Fine Arts (9 credit hours)**

Art Hi 250: Modern Art (3)  
Art St 121: Two-Dimensional Design (3)  
Phil 156: Reasoning and Critical Thinking (3)

**9. Suggested Technical Electives (9-11 credit hours)**

*Select from the following:*  
Art St 106, Art St 122, Art St 130, Art St 187, Art St 298T, CT 111LT, CT 119LT, DMA 168, DMA 270LT, IT 147LT, IT 149LT, IT 150LT, IT 242LT, IT 244LT, IT 246LT

*Note: Courses designated with the Suffix of “T” are developed and offered only by UNM-Los Alamos, do not automatically transfer to the UNM Albuquerque Campus, and will not be accepted toward the degree.*

## Certificate in Digital Media Arts

This program of study instructs the student in graphics, animation and multimedia using digital tools --hardware and software -- to produce visual content-based projects for screen display or the World Wide Web, for "land-based" traditional output or printing. It addresses simultaneously the impact of digital media on our culture and graphic design/visual problem-solving issues. Students are prepared for employment in the fields of graphic design, multimedia design, and web multimedia content.

**A minimum cumulative grade point average of 2.5 is required in all courses.**

Art St 121: Two-Dimensional Design (3)

CT 105LT: Introduction to Macintosh (1)

*or*

CT 120LT: Introduction to Microcomputers on the Macintosh (3)

DMA 101LT: Introduction to Digital Imaging & Scanning (1)

DMA 165LT: Digital Media Arts I (Photoshop) (3)

DMA 166LT: Digital Media Arts II (Illustrator) (3)

DMA 175LT: Digital Imaging and Photography (Photoshop) (3)

DMA 203LT: Introduction to Desktop Publishing (3)

DMA 240LT: Web Audio/Video (3)

DMA 250LT: Web Animation and Interactive Multimedia Design (3)

Engl 101: Composition I: Exposition (3)

IT 145LT: Web Design Fundamentals: HTML and Style Sheets (3)

IT 165LT: Introduction to Web Authoring (3)

**Total credit hours = 32 - 34**



# Associate of Applied Science In Electro Mechanical Technology

## About the Program

This program is designed to develop skills that will assist students in gaining employment as entry level technicians. Program content is intended to provide a balance of performance skills in both the electronic and mechanical technical fields. A maximum of 9 credit hours graded CR/NC is allowed toward this degree. Hours earned under which grading is specifically approved for CR/NC are not included in the 9-hour maximum.

## Specific Requirements

### 1. A minimum of 64 credit hours with a minimum grade point average of 2.0.

At least 15 of these 64 hours must be UNM-LA catalog credit courses taken in residence.

### 2. Writing and Speaking (6 credit hours)

Engl 101: Composition I: Exposition (3)  
Engl 119T: Technical Communications (3)

### 3. Mathematics and Statistics (7 credit hours)

Math 107: Problems in College Algebra (1)  
Math 121: College Algebra (3)  
Math 123: Trigonometry (3)

### 4. Natural Sciences (8 credit hours)

Chem 111L: Elements of General Chemistry (4)  
Physcs 102: Introduction to Physics (3)  
Physcs 102L: Physics Laboratory (1)

### 5. Technical Core Requirements (27 credit hours)

Draft 101LT: Introduction to Drafting (3)  
Draft 119LT: Drafting/Blueprint Reading (3)  
Elect T 101LT: DC Circuit Analysis (4)  
Elect T 102LT: AC Circuit Analysis (4)  
Elect T 105LT: Electro Mechanical Shop Practice (1)  
Elect T 112LT: RF/Power Lab (1)  
Elect T 114LT: Vacuum Systems (1)  
Elect T 203LT: Electronic Devices (4)  
Elect T 204LT: Electronics Lab (2)  
Elect T 205LT: Mechatronics (4)

### 6. Computer Technology (4 credit hours)

CT 111T: Introduction to Computer Aided Drafting and Design (3)

CT 111LT: Introduction to Computer Aided Drafting and Design Lab (0)  
CT 101LT: Introduction to Computing on Microcomputers (1)

### 7. Electives (12 credit hours)

Select from the following:

CT 119T: Intermediate Computer-Aided Drafting and Design (3)  
CT 119LT: Intermediate Computer-Aided Drafting and Design Lab (0)  
Draft 220LT: Fundamentals of Geometric Dimensioning and Tolerancing (3)  
Elect T 137LT: Digital Electronics I (Combinational Logic) (3)  
Elect T 296LT: Cooperative Practicum I, II, or III (1-3)  
Math 150: Pre-Calculus Mathematics (3)  
Mech T 101LT: Basic Welding (4)  
Mech T 193T: Topics: Oxy Acetylene Welding/Stick Welding (3)

*NOTE: Courses designated with a suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to UNM Albuquerque Campus, and will not be accepted toward the degree.*



## Certificate in Electro Mechanical Technology

This certificate represents completion of a course of studies related to the field of Electro Mechanical Technology. It may be used as a terminal certificate with subsequent entrance into the work force, or it may form the basis for additional course work leading to an associate degree in this or another field.

Chem 111L: Elements of Chemistry (4)  
CT 101LT: Introduction to Computing on Microcomputers (1)  
CT 111LT: Introduction to Computer Aided Drafting and Design (3)  
Draft 101LT: Introduction to Drafting (3)  
Draft 119LT: Drafting & Blueprint Reading (3)  
Elect T 101LT: DC Circuit Analysis (4)  
Elect T 102LT: AC Circuit Analysis (4)  
Elect T 105LT: Electromechanical Shop Practice (1)  
Elect T 112LT: RF/Power Lab (1)  
Elect T 114LT: Vacuum Systems (1)  
Engl 101: Composition I: Exposition (3)  
Math 107: Problems in College Algebra (1)  
Math 121: College Algebra (3)  
Math 123: Trigonometry (3)  
Physcs 102: Introduction to Physics (3)  
Physcs 102L: Physics Laboratory (1)

**Total credit hours = 39**

## Certificate in Materials Science Technology

The Materials Science Technology certificate is designed to prepare students for a career as technicians in the expanding field of Materials Science. Coursework offered provides the student with an overview of manufacturing processes and experience in areas such as microscopy and microstructures, mechanical behavior, and materials selection. Upon completion, the student will be prepared to join the workforce in a variable size organization and/or elect to pursue additional technology training.

**A minimum cumulative grade point average of 2.0 is required in all Core Courses.**

Engl 101: Composition I: Exposition (3)  
Engl 119T: Technical Communications (3)  
Math 107: Problems in College Algebra (1)  
Math 121: College Algebra (3)  
Math 123: Trigonometry (3)  
Chem 111L: Elements of General Chemistry (4)  
MST 101LT: Introduction to Materials Science Technology I (4)  
MST 102LT: Introduction to Materials Science Technology II (4)  
MST 104T: Introduction to Microscopy and Microstructures (3)  
MST 109T: Materials Processing and Manufacturing (3)  
MST 110T: Introduction to Mechanical Behavior of Materials (3)  
MST 112T: Introduction to Phase Transformations (3)  
MST 296T: Materials Science Technology Cooperative Work Phase (1)  
Physcs 102: Introduction to Physics (3)  
Physcs 102L: Physics Laboratory

**Total credit hours = 42**

# Associate of Applied Science In Financial Accounting

## About the Program

This terminal degree program is designed to help students prepare for entry into the accounting field as accounting clerks or technicians. The core courses in general education combined with extensive computer applications provide the necessary skills for success in today's changing business world. Students will become proficient in basic accounting principles: manual and computerized journals; posting; adjustments; monthly statements; payroll; bank reconciliations; cash flow reports; invoices; and the basics of auditing and taxes. A component of the required courses transfer to a BBA at UNM Albuquerque Campus.

Students planning to seek a four-year degree in accounting should complete a Pre-Business Administration Associate Degree.

## Specific Requirements

### 1. A minimum of 63 credits with a minimum grade point average of 2.0.

At least 15 of these 63 hours must be University of New Mexico-Los Alamos catalog credit courses taken in residence.

### 2. Writing and Speaking (6 credit hours)

Engl 101: Composition I: Exposition (3)

*and one course selected from the following:*

- Engl 119T: Technical Communications (3)
- Engl 219: Technical Writing (3)
- C & J 130: Public Speaking (3)
- C & J 221: Interpersonal Communications (3)
- C & J 225: Small Group Communications (3)

### 3. Fine Arts/Humanities/Social Sciences (6 credit hours)

### 4. Mathematics and Statistics/Natural Science/Behavioral Science (7 credit hours)

*Must include:*

Math 107: Problems in College Algebra (1)

*and*

Math 121: College Algebra (3)

### 5. Business Technology (12 credit hours)

Bus-Tc 202T: Business Applications on Microcomputers (3)

Bus-Tc 203T: Business Communication (3)

Bus-Tc 204T: Human Relations in Business (3)

Bus-Tc 218T: Business Law (3)

### 6. Management (23 credit hours)

Mgt 101: Fundamentals of Accounting I (3)

Mgt 101L: Fundamentals of Accounting I Lab (1)

Mgt 102: Fundamentals of Accounting II (3)

Mgt 102L: Fundamentals of Accounting II Lab (1)

Mgt 113: Management: An Introduction (3)

Bus-Tc 210T: Intermediate Accounting I (3)

Bus-Tc 211T: Intermediate Accounting II (3)

Bus-Tc 212T: Introduction to Income Tax (3)

Bus-Tc 220T: Management Accounting (3)

### 7. Computer Technology (3-4 credit hours)

CT 120LT: Introduction to Microcomputers on the Macintosh (3)

*or*

CT 102LT: Introduction to Microcomputers on the PC (4)

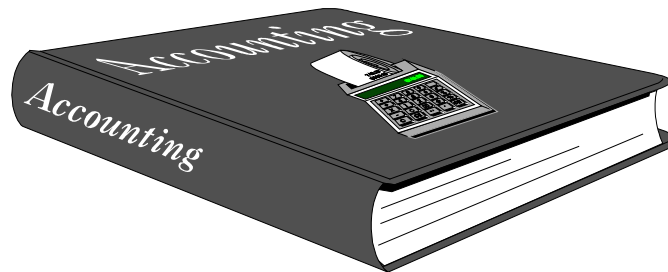
### 8. Technical Electives or Cooperative Education Work Phases (5-6 credit hours)

Bus-Tc 213T: Auditing (3)

Bus-Tc 214T: Governmental/Not for Profit Accounting (3)

Bus-Tc 296T: Business Cooperative Work Phase 1, 2, or 3 (1-3)

*Note: Courses designated with the Suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to the UNM Albuquerque Campus, and will not be accepted toward the degree.*



## Certificate in Financial Accounting

This certificate represents completion of a course of studies related to the field of Financial Accounting. It may be used as a terminal certificate with subsequent entrance into the work force, or it may form the basis for additional course work leading to an associate's degree in other fields.

Bus-Tc 202T: Business Applications on Microcomputers (3)  
Bus-Tc 203T: Business Communication (3)  
Bus-Tc 204T: Human Relations in Business (3)  
Bus-Tc 212T: Introduction to Income Tax (3)  
CT 102LT: Introduction to Microcomputers on the PC (4)  
Mgt 101: Fundamentals of Accounting I (3)  
Mgt 101LT: Fundamentals of Accounting I Lab (1)  
Mgt 102: Fundamentals of Accounting II (3)  
Mgt 102LT: Fundamentals of Accounting II Lab (1)  
Mgt 113: Management: An Introduction (3)  
Technical Elective (3)

**Total credit hours = 30**



# Associate of Applied Science In General Studies

## About the Program

The Associate of Applied Science in General Studies is designed to provide students with the opportunity to develop programs of study not available through other UNM-Los Alamos programs. A student's program may reflect either specialized or broad patterns of educational experience. Most general education courses articulate with many four-year college programs. Students may use courses labeled with a suffix of "T" toward this degree as elective credits but should be aware that credits in these courses may not articulate with four-year programs. Students planning to pursue baccalaureate degrees should familiarize themselves with the requirements of transfer institutions.

## Specific Requirements

### 1. A minimum of 63 credit hours with a minimum grade point average of 2.0.

At least 15 of these 63 hours must be UNM-LA catalog credit courses taken in residence.

### 2. Writing and Speaking (9 credit hours)

Select from the following:

- Engl 101: Composition I: Exposition (3)
- Engl 102: Composition II: Analysis & Argument (3)
- Engl 119T: Technical Communications (3)
- Engl 219: Technical Writing (3)
- Communication & Journalism elective (3)

### 3. Fine Arts (3 credit hours)

### 4. Mathematics and Statistics/Natural and Physical Sciences (10 credit hours)

Students must complete three courses, one of which must include a lab. Students are encouraged to select from UNM Core Curriculum in Physical/Natural Sciences or Mathematics.

### 5. Humanities (6 credit hours)

Students are encouraged to select from UNM Core Curriculum in Humanities.

### 6. Social and Behavioral Sciences (6 credit hours)

Students are encouraged to select from UNM Core Curriculum in Social and Behavioral Sciences.

### 7. Foreign Language (3 credit hours)

### 8. Computer Science/Computer Technology/Information Technology (3 credit hours)

### 9. General Education Electives (23 credit hours)

Students must complete 23 credit hours of electives of which 15 must be academic (i.e., numbered 101 or higher, no "T" courses); the remaining credits may be selected from any course listed in the UNM-Los Alamos Catalog.

*Note: Courses designated with the Suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to the UNM Albuquerque Campus, and will not be accepted toward the degree.*



# Associate Of Applied Science In Hospitality Administration/Management

## About the Program

This program is designed to provide students with the skills and knowledge necessary to seek employment or advancement in the hospitality services work environment specifically in the areas of hotel management and/or resort casino management. While this program is not designed for transfer to other educational institutions, individual course credits earned may be applied to selected baccalaureate programs. Students seeking to transfer are encouraged to consult with academic advisors prior to making course selections.

## Specific Requirements

### 1. A minimum of 67 credit hours with a minimum grade point average of 2.0.

At least 15 of these 67 hours must be UNM-LA catalog credit courses taken in residence.

### 2. Academic Skills (1 credit hour)

### 3. Writing and Speaking (9 credit hours)

Engl 101: Composition I: Exposition (3)  
Engl 102: Composition II: Analysis and Argument (3)  
C & J 130: Public Speaking (3)

*or*

C & J 221: Interpersonal Communication (3)

### 4. Mathematics and Statistics (4 credit hours)

Math 106: Problems in Intermediate Algebra (1)

*and*

Math 120: Intermediate Algebra (3)

### 5. Laboratory Science (4 credit hours)

*Select from the following:*

Biol 110/112L: Biology/Biology Laboratory (Non-Majors) (3/1)  
Biol 123: Biology for Health-Related Sciences and Non-Majors (3)  
Biol 124L: Biology for Health-Related Sciences and Non-Majors Laboratory (1)  
Biol 201: Molecular and Cell Biology (4)  
Chem 111L: Elements of General Chemistry (4)  
Chem 121L: General Chemistry (4)  
Chem 122L: General Chemistry (4)  
Astro 101/101L: Introduction to Astronomy/Astronomy Laboratory (3/1)

Physcs 102/102L: Introduction to Physics/Physics Laboratory (3/1)

E & PS 101/105L: Physical Geology/Physical Geology Laboratory (3/1)

Env Sci 101/102L: The Blue Planet/Blue Planet Lab (3/1)

### 6. Social/Behavioral Sciences (6-9 credit hours)

*Select from the following:*

Anth 130: Cultures of the World (3)

*or*

Anth 238: Cultures of the Southwest (3)

Econ 105: Introductory Macroeconomics (3)

*or*

Econ 106: Introductory Microeconomics (3)

Soc 101: Introduction to Sociology (3)

Pol Sc 200: American Politics (3)

Psych 105: General Psychology (3)

### 7. Humanities/Fine Arts (6-9 credit hours)

*Select from the following:*

Art Hi 101: Introduction to Art (3)

Engl 150: The Study of Literature (3)

*or*

Engl 211: Topics in Popular Literature (3)

*or*

Clscs 107: Greek Mythology (3)

Hist 101: Western Civilization (3)

*or*

Hist 102: Western Civilization (3)

Hist 161: History of the United States (3)

*or*

Hist 162: History of the United States (3)

Hist 260: History of New Mexico (3)

Phil 156: Introduction to Reasoning and Critical Thinking (3)

Thea 122: Theatre Appreciation (3)

Music 139: Music Appreciation (3)

### 8. Core Courses (35 credit hours)

CT 102LT: Introduction to Microcomputers (4)

Bus-Tc 204T: Human Relations in Business (3)

Mgt 101: Fundamentals of Accounting I (3)

Mgt 101LT: Fundamentals of Accounting I Lab (1)

Mgt 113: Management: An Introduction (3)

Mgt 222: Introduction to Marketing (3)

H AD M 101T: Introduction to Hotel/Casino Management (3)

H AD M 102T: Survey of Hotel/Gaming Laws and Regulations (3)

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## Associate of Applied Science in Hospitality Administration/Management

*Select 12 credit hours from the following:*

Bus-Tc 202T: Business Applications on  
Microcomputers (3)  
Mgt 234T: Personnel Management (3)  
Mgt 102: Fundamentals of Accounting II (3)  
Mgt 102L: Fundamentals of Accounting II Lab (1)

H AD M 106T: Survey of Casino Games (3)  
H AD M 108T: Casino Security and Surveillance (3)  
H AD M 200T: Supervision of Casino Games (3)  
H AD M 202T: Slots Management (3)  
H AD M 204T: Casino Cage Operations (3)  
H AD M 206T: Labor Relations (3)  
H AD M 296T: Co-op (1-3)

### Certificate in Hospitality Administration/Management

This certificate is designed to prepare students for entry-level positions or advancement if already working in the field in the hospitality service industry. Specific focus of coursework is in the areas of hotel management and resort casino management.

**A minimum cumulative grade point average of 2.0 is required in all courses.**

A & S 198: Introduction to Undergraduate Studies (3)  
Engl 101: Composition I: Exposition (3)  
C & J 130: Public Speaking (3)

*or*

C & J 221: Interpersonal Communication (3)  
C T 102LT: Introduction to Microcomputers (4)  
Bus-Tc 204T: Human Relations in Business (3)  
Mgt 101: Fundamentals of Accounting I (3)  
Mgt 101L: Fundamentals of Accounting I Lab (1)  
Mgt 113: Management: An Introduction (3)  
Mgt 222: Introduction to Marketing (3)  
H AD M 101T: Introduction to Hotel/Casino Management (3)  
H AD M 102T: Survey of Hotel/Gaming Laws and Regulations (3)

*Select 6 credit hours from the following:*

Mgt 234T: Personnel Management (3)  
H AD M 106T: Survey of Casino Games (3)  
H AD M 108T: Hotel/Casino Security and Surveillance (3)  
H AD M 200T: Supervision of Casino Games (3)  
H AD M 206T: Labor Relations (3)

**Total credit hours = 38**



# Associate of Applied Science in Network Administration — Unix Track

## About the Program

This degree program is designed to teach students the skills to install and maintain a networked environment. It covers foundation skills in the area of basic system administration and basic network administration. Students learn about such concepts as network servers and workstations, network organizations, data administration, hardware and software installation, and the integration of multiple platform environments. A student may select to focus on one of two tracks: Windows or UNIX. Students graduating with this degree will be able to work as system and network administrators in a small business environment with a networked computing facility.

## Specific Requirements

**1. A minimum of 65 credit hours with a minimum grade point average of 2.0.**

**2. A minimum grade of C (not C-) or better in each Core Course.**

At least 15 of these 65 hours must be UNM-LA Catalog credit courses taken in residence. A maximum of 6 CR/NC hours in technical electives only may count towards the degree. Please see an advisor regarding the eligibility of a particular CR/NC class.

**3. Writing and Speaking (9 credit hours)**

Engl 101: Composition I: Exposition (3)  
Engl 119T: Technical Communications (3)  
C & J 221: Interpersonal Communication (3)

*or*

C & J 225: Small Group Communication (3)

**4. Core Courses (38 credit hours)**

Bus-Tc 204LT: Human Relations in Business (3)  
CS 101LT: Introduction to Computer Science (4)  
CS 103LT: Advanced UNIX (1)  
CS 151L: Computer Programming Fundamentals for Non-Majors (3)  
CS 220LT: Systems Analysis and Design (3)  
IT 109LT: Information Technology Cooperative Education (3)

*or*

IT 235LT: Windows System Administration (3)  
IT 120LT: Networking Core Concepts (3)  
IT 131LT: Introduction to Hardware Installation (3)  
IT 132LT: Microcomputer Operating Systems (3)  
IT 225LT: TCP/IP (3)  
IT 230LT: UNIX System Administration I (3)  
IT 231LT: UNIX System Administration II (3)  
IT 260LT: Network Security Practices (3)

**5. Mathematics and Statistics (3 credit hours)**

Math 150: Pre-Calculus Mathematics (3)

**6. Physical Science (4 credit hours)**

Physcs 102: Introduction to Physics (3)  
Physcs 102L: Introduction to Physics Laboratory (1)

**7. Humanities/Fine Arts/Social Sciences (3 credit hours)**

Phil 156: Reasoning and Critical Thinking (3)

**8. Technical Electives (8 credit hours)**

CS 152L: Computer Programming Fundamentals for Computer Science Majors (3)  
CS 160LT: Introduction to JAVA (3)  
CS 170LT: Introduction to Visual Basic (3)  
CS 180LT: Introduction to PERL (3)  
CS 260: Introduction to Networking Using Novell (3) (NNMCC only)  
IT 109LT: Information Technology Cooperative Education (3)  
IT 121LT: Windows Client OS (3)  
IT 122LT: Windows Server OS (3)  
IT 226LT: Web Server Technology (3)  
IT 229LT: Networking Infrastructure (3)  
IT 235LT: Windows System Administration (3)

*Note: Courses designated with the Suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to the UNM Albuquerque Campus, and will not be accepted toward the degree.*

# Associate of Applied Science in Network Administration — Windows® Track

## About the Program

This degree program is designed to teach students the skills to install and maintain a networked computing environment. It covers foundation skills in the area of basic system administration and basic network administration. Students learn about such concepts as network servers and workstations, network organizations, data administration, hardware and software installation, and the integration of multiple platform environments. A student may select to focus on one of two tracks: Windows or UNIX. Students graduating with this degree will be able to work as system and network administrators in a small business environment with a networked computing facility.

## Specific Requirements

**1. A minimum of 65 credit hours with a minimum grade point average of 2.0.**

**2. A minimum grade of C (not C-) or better in each Core Course.**

At least 15 of these 65 hours must be UNM-LA Catalog credit courses taken in residence. A maximum of 6 CR/NC hours in technical electives only may count towards the degree. Please see an advisor regarding the eligibility of a particular CR/NC class.

**3. Writing and Speaking (9 credit hours)**

Engl 101: Composition I: Exposition (3)  
Engl 119T: Technical Communications (3)  
C & J 221: Interpersonal Communication (3)  
*or*  
C & J 225: Small Group Communication (3)

**4. Core Courses (43 credit hours)**

Bus-Tc 204LT: Human Relations in Business (3)  
CS 101LT: Introduction to Computer Science (4)  
CS 160LT: Introduction to JAVA (3)  
*or*  
CS 170LT: Introduction to Visual Basic (3)  
CS 220LT: Systems Analysis and Design (3)  
IT 109LT: Information Technology  
Cooperative Education (3)  
*or*  
IT 235LT: Windows System Administration (3)  
IT 120LT: Networking Core Concepts (3)  
IT 121LT: Windows Client OS (3)

IT 122LT: Windows Server OS (3)  
IT 131LT: Introduction to Hardware Installation (3)  
IT 132LT: Microcomputer Operating Systems (3)  
IT 225LT: TCP/IP (3)  
IT 226LT: Web Server Technology (3)  
IT 260LT: Network Security Practices (3)  
IT 229LT: Networking Infrastructure (3)

**5. Mathematics and Statistics (3-4 credit hours)**

Math 106: Problems in Intermediate Algebra (1)  
*and*  
Math 120: Intermediate Algebra (3)  
*or*  
Math 107: Problems in College Algebra (1)  
*and*  
Math 121: College Algebra (3)  
*or*  
Math 150: Pre-Calculus Mathematics (3)

**6. Physical Science (4 credit hours)**

Physcs 102: Introduction to Physics (3)  
Physcs 102L: Introduction to Physics Laboratory (1)

**7. Humanities/Fine Arts/Social Sciences (3 credit hours)**

Phil 156: Reasoning and Critical Thinking (3)

**8. Technical Electives (2-3 credit hours)**

CS 103LT: Advanced UNIX (1)  
CS 151L: Computer Programming Fundamentals for Non-Majors [in C++] (3)  
CS 180LT: Introduction to PERL (3)  
CS 260: Introduction to Networking Using Novell (3) (NNMCC only)  
IT 109LT: Information Technology  
Cooperative Education (3)  
IT 230LT: UNIX System Administration I (3)  
IT 231LT: UNIX System Administration II (3)  
IT 235LT: Windows Systems Administration (3)

*Note: Courses designated with the Suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to the UNM Albuquerque Campus, and will not be accepted toward the degree.*

## Certificate in Network Administration — UNIX Track

This certificate represents completion of a course of studies related to the field of Network Administration.

### Specific Requirements

**A minimum of 39 credit hours, with a minimum grade point average of 2.5 in the core courses.**

#### Core Requirements (37-38 credit hours)

CS 103LT: Advanced UNIX (1)  
CS 151L: Computer Programming Fundamentals for Non-Majors (3)  
Engl 101: Composition I: Exposition (3)  
IT 120LT: Networking Core Concepts (3)  
IT 131LT: Introduction to Hardware Installation (3)  
IT 132LT: Microcomputer Operating Systems (3)  
IT 225LT: TCP/IP (3)  
IT 230LT: UNIX System Administration I (3)  
IT 231LT: UNIX System Administration II (3)  
IT 260LT: Network Security Practices (3)  
Math 150: Pre-Calculus Mathematics (3)

#### Technical Electives (4 credit hours)

CS 152L: Computer Programming Fundamentals for Computer Science Majors (3)  
CS 160LT: Introduction to JAVA (3)  
CS 170LT: Introduction to Visual Basic (3)  
CS 180LT: Introduction to PERL (3)  
CS 260: Introduction to Networking Using Novell (3) (NNMCC only)  
IT 109LT: Information Technology Cooperative Education (3)  
IT 121LT: Windows Client Operating Systems (3)  
IT 122LT: Windows Server Operating Systems (3)  
IT 226LT: Web Server Technology (3)  
IT 229LT: Networking Infrastructure (3)  
IT 235LT: Windows System Administration (3)

**Total credit hours = 39**

## Certificate in Network Administration — Windows® Track

This certificate represents completion of a course of studies related to the field of Network Administration.

### Specific Requirements

**A minimum of 39 credit hours, with a minimum grade point average of 2.5 in the core courses.**

#### Core Requirements (37-38 credit hours)

CS 101LT: Introduction to Computer Science (4)  
Engl 101: Composition I: Exposition (3)  
IT 120LT: Networking Core Concepts (3)  
IT 121LT: Windows Client Operating Systems (3)  
IT 122LT: Windows Server Operating Systems (3)  
IT 131LT: Introduction to Hardware Installation (3)  
IT 132LT: Microcomputer Operating Systems (3)  
IT 225LT: TCP/IP (3)  
IT 226LT: Web Server Technology (3)  
IT 229LT: Networking Infrastructure (3)  
IT 260LT: Network Security Practices (3)  
Math 106: Problems in Intermediate Algebra  
*and*  
Math 120: Intermediate Algebra  
*or*  
Math 107: Problems in College Algebra (1)  
*and*  
Math 121: College Algebra (3)  
*or*  
Math 150: Pre-Calculus Mathematics (3)

#### Technical Electives (1-2 credit hours)

CS 103LT: Advanced UNIX (1)  
CS 130LT: Introduction to Problem Solving Strategies (3)  
CS 151L: Computer Programming Fundamentals for Non-Majors (3)  
CS 152L: Computer Programming Fundamentals for Computer Science Majors (3)  
CS 160LT: Introduction to JAVA (3)  
CS 170LT: Introduction to Visual Basic (3)  
CS 220LT: Systems Analysis and Design (3)  
CS 260: Introduction to Networking Using Novell (3) (NNMCC only)  
IT 109LT: Information Technology Cooperative Education (3)  
IT 235LT: Windows System Administration (3)  
IT 230LT: UNIX System Administration I (3)  
IT 231LT: UNIX System Administration II (3)

**Total credit hours = 39**

# Associate of Applied Science in Office Communications and Technology

## About the Program

The Associate of Applied Science Degree in Office Communications and Technology covers the skills required for effective administrative support. The program is designed for students seeking positions as administrative assistants, office assistants, and secretaries in technical/scientific government or private business office environments.

Students enrolled in the degree program are encouraged to join the International Association of Administrative Professions (IAAP) student organization and work towards becoming a Certified Administrative Professional.

## Specific Requirements

### 1. A minimum of 64-65 credit hours with a minimum grade average of 2.0.

At least 15 of these 64-65 hours must be UNM-Los Alamos catalog credit courses taken in residence.

### 2. Writing and Speaking (27 credit hours)

#### English (15 credit hours)

- Engl 101: Composition I: Exposition (3)
- Engl 102: Composition II: Analysis and Argument (3)
- Engl 240: Traditional Grammar (3)
- Engl 290: Introduction to Professional Writing (3)

#### Communication Skills (12 credit hours)

- C & J 130: Public Speaking (3)
- Bus-Tc 203T: Business Communications (3)
- C & J 115: Small Group Communication (3)

#### Choose 3 credit hours from the following:

- C & J 125: Communication Across Cultures (3)
- C & J 221: Interpersonal Communication (3)

### 3. Business Technology (15 credit hours) Bus-Tc 125T:

- Introduction to Business Environment (3)
- Bus-Tc 126T: Introduction to Supervision (3)
- Mgt 113: Introduction to Management (3)
- Mgt 204: Human Relations (3)

#### Choose 3 credit hours from the following:

- Bus-Tc 114T: Customer Service & Relations (1)
- Bus-Tc 115T: Time Management for Professionals (1)
- Bus-Tc 116T: Stress Management for the Workplace (1)

Bus-Tc 117T: Organization Skills for the Workplace (1)

Bus-Tc 118T: Conflict Resolution for the Workplace (1)

### 4. Computer Technology or Information Technology (12 credit hours)

- CT 140LT: Introduction to PowerPoint (1)
- Bus-Tc 264T: Word Processing I (3)

or

- Bus-Tc 274: Word Processing II (3)
- Bus-Tc 202T: Business Applications on Microcomputers (3)

CT 104LT: Introduction to Relational Databases: Access (1)

- CT 202LT: Applications of Spreadsheets: EXCEL (3)
- CT 144LT: Introduction to HTML (1)

### 5. Mathematics and Statistics (4 credit hours)

Math 106: Problems in Intermediate Algebra (1)

and

Math 120: Intermediate Algebra (3)

### 6. Fine Arts/Humanities/Language (3-4 credit hours)

Choose any course from the current UNM Fine Arts, Humanities, or Language Core Curriculum (3-4). It is strongly advised that students enroll in one of the following Spanish courses, depending on previous Spanish language experience:

- Span 101: Elementary Spanish (3) and lab Span 103L: Elementary Spanish Conversation (1)
- OR Span 102: Elementary Spanish (3) (2nd half) and lab Span 104L (1)
- OR Span 120: Workshop in Conversational Spanish (does not count as Core Curriculum requirement.)

### 7. Social/Behavioral Sciences (3 credit hours)

#### Choose 3 credit hours from the following:

- Psych 105: General Psychology (3)
- Soc 101: Introduction to Sociology (3)
- Econ 105: Introduction to Macroeconomics (3)
- Econ 106: Introduction to Microeconomics (3)

**Total credit hours = 64 – 65**

*Note: Courses designated with the Suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to the UNM Albuquerque Campus, and will not be accepted toward the degree.*

## Certificate in Office Communications and Technology

The Associate of Applied Science Degree in Office Communications and Technology covers the skills required for effective administrative support. The program is designed for students seeking positions as administrative assistants, office assistants, and secretaries in technical/scientific government or private business office environments.

**A minimum cumulative grade point average of 2.0 is required in all courses.**

Engl 101: Composition I: Exposition (3)  
Engl 240: Traditional Grammar (3)  
C & J 225: Small Group Communications (3)  
Bus-Tc 203T: Business Communications (3)  
Bus-Tc 125T: Introduction to Business Environment (3)  
Bus-Tc 126T: Introduction to Supervision (3)  
CT 140LT: Introduction to PowerPoint (1)  
Bus-Tc 264T: Word Processing I (3)

*or*

Bus-Tc 274: Word Processing II (3)  
Bus-Tc 202T: Business Applications on Microcomputers (3)  
CT 104LT: Introduction to Relational Databases: Access (1)  
CT 202LT: Applications of Spreadsheets: EXCEL (3)

***Choose 3 credit hours from the following:***

Bus-Tc 114T: Customer Service & Relations (1)  
Bus-Tc 115T: Time Management for Professionals (1)  
Bus-Tc 116T: Stress Management for the Workplace (1)  
Bus-Tc 117T: Organizational Skills for the Workplace (1)  
Bus-Tc 118T: Conflict Resolution for the Workplace (1)

**Total credit hours = 32**



# Associate of Applied Science in Technical Support

## About the Program

The Associate of Applied Science in Technical Support will provide customer and technical support through analysis and problem solving to facilitate installation, implementation, maintenance, education, and documentation of a variety of computer-related technologies. A student with this degree will be able to field customer calls, gather appropriate information about customer software and hardware problems, and help the customer solve their problem.

## Specific Requirements

### 1. A minimum of 65 credit hours with a minimum cumulative grade point average of 2.0

### 2. Minimum grade of C (not C-) in each Core Course

At least 15 of these 65 hours must be UNM-LA catalog credit courses taken in residence. A maximum of 6 CR/NC hours in technical electives only may count towards the degree. Please see an advisor regarding eligibility of a particular CR/NC class.

### 3. Writing and Speaking (9 credit hours)

Engl 101: Composition I: Exposition (3)  
Engl 119T: Technical Communications (3)  
C & J 221: Interpersonal Communications

*or*

C & J 225: Small Group Communications (3)

### 4. Core Courses (40 credit hours)

CS 101LT: Introduction to Computer Science (4)  
CS 170LT: Introduction to Visual Basic (3)

*or*

CS 151L: Computer Programming  
Fundamentals for Non-Majors (3)

*or*

CS 160LT: Introduction to JAVA (3)  
CS 220LT: Systems Analysis and Design (3)  
CT 102LT: Introduction to Microcomputers  
on the PC (4)

CT 140LT: Introduction to PowerPoint (1)  
CT 201LT: Applications of Relational Databases (4)  
CT 202LT: Applications of Spreadsheets (3)  
IT 120LT: Networking Core Concepts (3)  
IT 131LT: Introduction to Hardware Installation (3)  
IT 132LT: Microcomputer Operating Systems (3)  
IT 109LT: Information Technology Cooperative  
Education (6)

*or*

IT 140, IT 240LT: Help Desk I and II (6)  
Bus-Tc 204LT: Human Relations in Business (3)

### 5. Humanities/Fine Arts/Social Science (3 credit hours)

Phil 156: Reasoning and Critical Thinking (3)

### 6. Mathematics and Statistics (3 - 4 credit hours)

Math 106: Problems in Intermediate Algebra (1)

*and*

Math 120: Intermediate Algebra (3)

*or*

Math 107: Problems in College Algebra (1)

*and*

Math 121: College Algebra (3)

*or*

Math 150: Pre-Calculus Mathematics (3)

### 7. Physical Science (4 credit hours)

Physcs 102: Introduction to Physics (3)  
Physcs 102L: Introduction to Physics Laboratory (1)

### 8. Technical Elective (5 - 6 credit hours)

*Select from the following topics:*

Networking, Web Page Design, Programming,  
Digital Media Arts, Statistics

**Total credit hours = 64 – 65**

*Note: Courses designated with the Suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to the UNM Albuquerque Campus, and will not be accepted toward the degree.*

## Certificate in Technical Support

A person with a certificate in Technical Support will be able to provide customers or in-house personnel with support in all areas relating to the installation, maintenance, and updating of a personal computer. This individual will have some expertise with the Microsoft Office products, be able to install new software, build a basic computer from the box, install basic hardware components and do minor hardware repairs. This individual will also have a basic knowledge of how a network is built and operates.

**A minimum cumulative grade point average of 2.5 is required in the Core Courses.**

### Core Courses (34-35 credit hours)

CS 101LT: Introduction to Computer Science (4)

CT 102LT: Introduction to Microcomputers on the PC (4)

CT 140LT: Introduction to PowerPoint (1)

CT 201LT: Applications of Relational Databases (4)

CT 202LT: Applications of Spreadsheets (3)

IT 120LT: Networking Core Concepts (3)

IT 131LT: Introduction to Hardware Installation (3)

IT 132LT: Microcomputer Operating Systems (3)

IT 140LT: Help Desk I (3)

*or*

IT 109LT: Information Technology Cooperative Education (3)

Engl 101: Composition I: Exposition (3)

Math 106: Problems in Intermediate Algebra (1)

*and*

Math 120: Intermediate Algebra (3)

*or*

Math 107: Problems in College Algebra (1)

*and*

Math 121: College Algebra (3)

*or*

Math 150: Pre-Calculus Mathematics (3)

### Technical Electives (4-5 credit hours)

*Select from the following topics:*

Networking

Web Page Design

Programming

Help Desk

PowerPoint

Digital Media Arts

**Total credit hours = 39**



# Associate of Applied Science in Web Technologies

## About the Program

The Associate of Applied Science Degree in Web Technologies prepares students to design and develop websites. The kinds of websites students will learn to design and develop include a range from relatively simple websites that provide information, to complex, large-scale websites that provide information and interactive websites that allow users to perform transactions. Students will learn the fundamental tools of web design and development: HTML (Hypertext Markup Language), CSS (Cascading Style Sheets), JavaScript, DHTML (Dynamic HTML), and XML (Extensible Markup Language). They will learn how to create forms for transactional websites using Perl and CGI (Common Gateway Interface). They will learn the techniques of information architecture and the principles of web usability. They will integrate these tools, techniques, and principles in the design and development of complex websites in a course on creating a web portfolio. Upon graduation, they will be prepared to work in web design companies, in small businesses and institutions as the sole web designer and developer, or in large businesses and institutions as part of a team of web designers and developers.

## Specific Requirements

### 1. A minimum of 65 credit hours with a minimum cumulative grade point average of 2.0

### 2. Minimum grade of C (not C-) in each Core Course

At least 15 of these 65 hours must be UNM-LA catalog credit courses taken in residence. A maximum of 6 CR/NC hours in technical electives only may count towards the degree. Please see an advisor regarding eligibility of a particular CR/NC class.

### 3. Writing and Speaking (9 credit hours)

Engl 101: Composition I: Exposition (3)  
Engl 119T: Technical Communications (3)

*or*

Engl 102: Composition II: Analysis & Argument (3)  
C & J 221: Interpersonal Communications (3)

*or*

C & J 225: Small Group Communications (3)

### 4. Core Requirements (33 credit hours)

IT 120LT: Networking Core Concepts (3)  
IT 145LT: Web Design Fundamentals: HTML and Introduction to Style Sheets (3)

IT 147LT: Web Usability (3)  
IT 149LT: Web Design: Introduction to JavaScript (3)  
IT 150LT: Web Design: Intermediate Style Sheets and Introduction to DHTML (3)  
IT 165LT: Introduction to Web Authoring (3)  
IT 241LT: Web Design: Introduction to XML (3)  
IT 242LT: Web Design: Introduction to Forms (3)  
IT 244LT: Information Architectures for Complex Web Sites (3)  
IT 246LT: Web Design: Creating a Portfolio (3)  
CS 160LT: Introduction to JAVA (3)

### 5. Mathematics and Statistics (3 credit hours)

Math 150: Pre-Calculus Mathematics (3)

### 6. Physical Science (4 credit hours)

#### Select from the following:

Biol 110: Biology for Non-Majors (3)  
Biol 112L: Biology for Non-Majors Lab (1)  
Biol 201: Molecular and Cell Biology (4)  
Biol 202: Genetics (4)  
Chem 111L: Elements of General Chemistry (4)  
Chem 121L: General Chemistry (4)  
Chem 122L: General Chemistry (4)  
Astr 101: Introduction to Astronomy (3)  
Astr 101L: Astronomy Lab (1)  
Physcs 102: Introduction to Physics (3)  
Physcs 102L: Physics Lab (1)  
Physcs 160: General Physics (3)  
Physcs 160L: General Physics Lab (1)  
E & PS 101: How the Earth Works - An Introduction to Geology (3)  
E & PS 105L: Physical Geology Lab (1)  
Nat Sc 261L: Physical Science (4)  
Nat Sc 262L: Life Science (4)  
Nat Sc 263L: Environmental Science (4)

### 7. Humanities/Fine Arts/Social/Behavioral Science (9 credit hours)

#### Required:

Phil 156: Reasoning and Critical Thinking (3)

#### Select from the following:

Soc 101: Introduction to Sociology (3)  
Am St 186: Introduction to Southwest Studies (3)  
Anth 130: Cultures of the World (3)  
Art Hi 101: Introduction to Art (3)  
Art Hi 201: History of Art I (3)  
Art Hi 202: History of Art II (3)  
Clscs 107: Greek Mythology (3)  
Clscs 204: Greek Civilization (3)  
Econ 105: Introductory Macroeconomics (3)

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## Associate of Applied Science in Web Technologies, continued

Econ 106: Introductory Microeconomics (3)  
Engl 150: The Study of Literature (3)  
Hist 101: Western Civilization (3)  
Hist 102: Western Civilization (3)  
Hist 161: History of the United States to 1877 (3)  
Hist 162: History of the  
    United States Since 1877 (3)  
Music 139: Music Appreciation (3)  
Music 140: Music Appreciation (3)  
Phil 101: Introduction to  
    Philosophical Problems (3)  
Pol Sc 200: American Politics (3)  
Psych 105: General Psychology (3)  
Relig 107: Living World Religions (3)  
Thea 122: Theatre Appreciation (3)

### 8. Technical Electives (7 credit hours)

*Choose from the following suggested electives:*

DMA 165LT: Introduction to Digital Media  
    Arts (Photoshop) (3)  
DMA 166LT: Introduction to Digital Media  
    Arts II (Illustrator) (3)  
DMA 203LT: Introduction to Desktop  
    Publishing (3)  
DMA 240LT: Web Audio/Video (3)  
DMA 250LT: Web Animation (Flash) (3)  
CS 151L: Computer Programming  
    Fundamentals for Non-Majors (3)  
CS 170LT: Introduction to Visual Basic (3)  
CS 180LT: Introduction to PERL (3)

*Note: Courses designated with the Suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to the UNM Albuquerque Campus, and will not be accepted toward the degree.*

## Certificate in Web Technologies

The Certificate in Web Technologies prepares students to design and develop Web sites. The kinds of websites students will learn to design and develop include a range from relatively simple websites that provide information, to complex, large-scale websites that provide information and interactive websites that allow users to perform transactions. Students will learn the fundamental tools of web design and development: HTML (Hypertext Markup Language), CSS (Cascading Style Sheets), JavaScript, DHTML (Dynamic HTML), and XML (Extensible Markup Language). They will learn how to create forms for transactional websites using Perl and CGI (Common Gateway Interface). They will learn the techniques of information architecture and the principles of web usability. They will integrate these tools, techniques, and principles in the design and development of complex websites in a course on creating a web portfolio. Upon graduation, they will be prepared to work in web design companies, in small businesses and institutions as the sole web designer and developer, or in large businesses and institutions as part of a team of web designers and developers.

**A minimum cumulative grade point average of 2.5 is required in all courses.**

### Core Courses

Engl 101: Composition I: Exposition (3)  
Math 150: Pre-Calculus Mathematics (3)  
IT 120LT: Networking Core Concepts (3)  
IT 145LT: Web Design Fundamentals: HTML and Intro to Style Sheets (3)  
IT 147LT: Web Usability (3)  
IT 149LT: Web Design: Introduction to JavaScript (3)  
IT 150LT: Web Design: Intermediate Style Sheets and Intro to DHTML (3)  
IT 165LT: Introduction to Web Authoring (3)  
IT 241LT: Web Design: Introduction to XML (3)  
IT 242LT: Web Design: Introduction to Forms (3)  
IT 244LT: Information Architectures for Complex Web Sites (3)  
IT 246LT: Web Design: Creating a Portfolio (3)  
CS 160LT: Introduction to Java (3)

**Total credit hours = 39**

## General Education and Program Requirements

A schedule of course offerings which includes hours of meeting and instructors will be issued before each semester and session. All classes are not offered every semester or session. Students should check individual semester/session published class schedules. Course descriptions for any new courses to be offered by UNM-Los Alamos that have not been included in this catalog will be provided in class schedules.

All courses listed except those marked with a "T" suffix, carry full University of New Mexico credit. Courses marked with a "T" suffix, although designed

for credit on the Los Alamos campus only, may transfer to other institutions, including UNM Albuquerque Campus, upon petition for approval from the appropriate department and from the degree-granting college.

An equivalency articulation guide for other state institutions is available at the UNM-Los Alamos Registrar's Office. Please contact UNM-Los Alamos academic advisors for more information.

UNM-Los Alamos reserves the right to cancel any course subject to budgetary requirements, enrollment figures, or availability of instructors.

### Academics

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

#### **Acad 107T: College Survival Skills. (1)**

Information and skills necessary for success in college: University resources, learning styles, classroom communication, listening skills, test taking, memory aides, libraries and how to use them.

CR/NC.

#### **Acad 108T: New Beginnings 1 - Life Skills. (1)**

A personalized outreach program that encourages the development of life and work skills, and supports the educational goals of students who are experiencing a challenging transition at home or work.

CR/NC.

#### **Acad 109T: New Beginnings 2 -Career Skills. (1)**

A personalized outreach program that encourages the development of career and employability skills, re-enforces positive life style changes, and supports the educational goals of students who are experiencing a challenging transition at home or work.

CR/NC.

#### **Acad 110T: New Beginnings 3 - Job Search & Career Skills Plus. (1)**

A personalized outreach program that encourages the development of career and employability skills, re-enforces positive life style changes, investigates community resources, and supports individualized educational goals of students who are experiencing a challenging transition at home or work.

CR/NC.

#### **Acad 111T: New Beginnings 4 - Advanced Career Skills. (1)**

A personalized outreach program that encourages the development of advanced career and employability skills, re-enforces positive life style changes, and supports individualized educational goals of students who are experiencing a challenging transition at home or work.

CR/NC

#### **Acad 192T\*: Topics. (1-3)**

Titles will vary.

CR/NC.

#### **Acad 193T\*: Topics. (1-3)**

Titles will vary.

### American Studies

*Courses marked with an \* may be repeated for credit because subject matter varies.*

#### **Am St 182: Introduction to Environment, Science, and Technology. (3)**

An introduction to the socially and politically constructed values directing Americans' attitudes toward nature, sciences, and technology and to the impacts of those attitudes on built and natural environments regionally, nationally and globally.

#### **Am St 184: Introduction to American Popular Culture. (3)**

Survey of basic concepts of popular culture and methods for its study. Includes examination of popular myths and beliefs, heroes, rituals, icons, and formulas. Source materials are drawn from diverse areas – television, film, fashion, comics, music and games. May be repeated for credit with permission of the Am St undergraduate advisor.

**Am St 185: Introduction to Race, Class & Ethnicity. (3)**

An interdisciplinary introduction to the issues of race, class and ethnicity in American life and society.

**Am St 186: Introduction to Southwest Studies. (3)**

Provides both an introduction to the complex history and culture of the Southwestern United States and a demonstration of the possibilities of the interdisciplinary study of regional American culture. It is multicultural in its content as it is multidisciplinary in its methodology.

**Am St 200: Topics in American Studies. (3 to a maximum of 6)**

The content of this course varies by semester. Topics include: America in the 50s; America in the 60s and 70s; the American family power and culture; schooling in America.

**Am St 251: The Chicano Experience in the United States. (3)**

Investigation of the historical and social conditions that have shaped the development of Chicano life.

**Am St 252: The Native American Experience. (30)**

(Also offered as Nat Am 252.) Introductory survey of Native American history, culture, and contemporary issues. Students read literature by and about Native Americans covering a variety of topics including tribal sovereignty, federal policy, activism, economic development, education, and community life.

**Am St 285: American Life and Thought. (3)**

Examination of the development of American cultural values and attitudes from the seventeenth to the early twentieth centuries. Demonstrates the use of interdisciplinary modes of study.

**Am St 286: Associate Seminar on the Southwest. (3)**

Students will integrate personal interest, research, and course work into written and public presentations that reflect the Southwest's major historical, cultural, and ecological themes. Pre- or corequisites: Libr 290, Engl 102; approval of the instructor.

**Anthropology**

**Anth 101: Introduction to Anthropology. (3)**

Surveys the breadth of anthropology, introducing students

to archaeology, biological anthropology, ethnology, human evolutionary ecology and linguistics.

**Anth 110: Language, Culture, and the Human Animal. (3)**

Fundamentals of anthropological linguistics. The biological, structural, psychological, and social nature of language; implications for cross-cultural theory, research, and applications.

Also offered as Ling 101

**Anth 121L: Archaeological Method and Theory. (4)**

Introduction to archaeological method and theory. Lectures cover basic concepts and strategy. Labs provide hands-on experience with methods of analyzing archeological remains.

**Anth 130: Cultures of the World. (3)**

Basic concepts and methods of cultural anthropology. Selected cultures, ranging from preliterate societies to aspects of urban civilization.

**Anth 201: Dinosaurs, Troglodytes and Apes: The History of Human Evolution. [Human Ancestry] (4) [3]**

Background to the scientific study of organic evolution, application of evolutionary theory to our species and evidence for our biological and behavioral evolution from ape-like ancestors to the cave dwellers of the Late Stone Age. Two lectures, three hour lab and five field trips.

**Anth 220: World Archaeology. (3)**

Introduces archaeological theory, method, and technique by presenting the developmental history of human cultures.

**Anth 237: Indians of New Mexico. (3)**

Survey of the Indian cultures of New Mexico including anthropological perspectives on their history, language, social organization, economy, health, and education.

**Anth 238: Cultures of the Southwest. (3)**

Basic concepts of cultural anthropology, illustrated with overviews of social and cultural patterns of Southwest Indians and Hispanics. Interethnic relations of these with other American populations.

**Anth 261: Humans in Nature. (3)**

Human roles in nature with respect to principles of biological ecology. Anthropological emphasis is on preindustrial human societies; lectures and reading will also treat critical changes which have occurred recently in human-environmental relationships.

## Art History

### **Art Hi 101: Introduction to Art. (3)**

A beginning course in the fundamental concepts of the visual arts; the language of form and the media of artistic expression. Readings and slide lectures supplemented by museum exhibition attendance.

### **Art Hi 201: History of Art I. (3)**

Prehistoric, Near Eastern, Egyptian, Greek, Roman, Early Christian, Byzantine, Romanesque, and Gothic Art.

### **Art Hi 202: History of Art II. (3)**

Western Art from the Early Renaissance to Impressionism.

### **Art Hi 204: Greek Civilization. (3)**

An interdisciplinary introduction to the ancient world as the foundation of modern civilization. Lectures on classical art, history, literature, and philosophy.

Also offered as Clscs 204, Hist 204, Phil 204

### **Art Hi 205: Roman Civilization. (3)**

An interdisciplinary introduction to ancient Rome. Lectures on Roman literature, history, art and philosophy.

Also offered as Clscs 205, Hist 205, Phil 205

### **Art Hi 250: Modern Art. (3)**

Major stylistic developments of European and American painting and sculpture from Impressionism to approximately World War II.

### **Art Hi 251: Artistic Traditions of the Southwest. (3)**

Interrelationships of Native American, Hispanic, and Anglo cultures from prehistoric times to the present, emphasizing the major forms of expression—pottery, textiles, jewelry, architecture, painting and photography. Slide lectures supplemented by museum exhibits.

## Art Studio

*[\* May be taken twice for credit.]*

### **Art St 106: Drawing I. (3)**

Basic drawing concepts, including the expressive use of contour, value, perspective and composition while exploring both dry and wet media. Assigned problems may include still life, landscape, portraiture or the figure.

Suggested corequisites: Art St 121, Art Hi 121.

### **Art St 121: Two-Dimensional Design. (3)**

Emphasis on elements of line, form, value, color theory, painting principles and visual vocabulary. Particular attention will be placed on a disciplined approach toward design and development of perceptual skills.

Suggested corequisite: Art St 106, Art Hi 101.

### **Art St 122: Three-Dimensional Design. (3)**

Emphasis on materials, processes and vocabulary. Particular attention will be placed on traditional and contemporary approaches to sculpture through the consideration of spatial concepts and making three-dimensional objects.

Suggested corequisite: Art St 123.

### **Art St 123: Shop Foundations. (2)**

Familiarizes the art student with the safe practice and maintenance of wood and metal shop tools and machinery. CR/NC.

### **Art St 130: Introduction to Electronic Art. (3)**

Introduction to the computer as a medium and fine art tool. Course will explore history, theory and contemporary art issues associated with computer-based art practice, as well as introducing students to basic tools and technologies.

Suggested corequisite: Art St 121.

### **Art St 157\*: Small Scale Metal Construction I. (3)**

Introduction to basic fabrication methods as they relate to object-making and small-scale sculpture.

Corequisite: Art St 122.

### **Art St 168\*: Ceramics I. (3)**

Introduction to clay forms, hand built and wheel-thrown techniques, slips, glazes and stoneware.

Suggested corequisites: Art St 106 and Art St 122.

### **Art St 187: Introduction to Photography. [Photography I]. (3)**

Introduction to photographic vision and photographic techniques.

Suggested corequisite: Art St 121.

### **Art St 205: Drawing II. (3)**

Further concentration on basic drawing concepts with a greater emphasis on descriptive and perceptual drawing skills using both dry and wet media. Assigned problems explore aspects of still life, landscape, portraiture and/or the figure.

Prerequisites: Art St 106 and Art St 121.

**Art St 206: Pastel—An Introduction to an Abrasive Color Medium. (3)**

Students will be introduced to the use of Pastel. Issues to be covered include history of pastels, traditional and contemporary techniques, and color theory.

Prerequisites: Art St 121 and Art St 106 or permission of the instructor.

**Art St 207: Painting I. (3)**

Painting materials and techniques, integrating basic drawing concepts with color theory and composition. Emphasis on descriptive and perceptual skills through assigned problems which explore aspects of still life, landscape, portraiture and/or the figure.

Prerequisites: Art St 106, Art St 121; pre- or corequisite: Art St 205.

**Art St 213: Sculpture I. (3)**

A further exploration into the concepts presented in Three-Dimensional Design. Will investigate, through specific assignments, issues that are central to producing sculpture.

Prerequisites: Art St 122 and Art St 123.

**Art St 216: Raku - A Ceramic Low-Firing Reduction Process. (3)**

Students will be introduced to the principles of Raku Firing including simple glaze formulation, firing techniques, and designing-building the kiln.

Prerequisite: Art St 168.

**Art St 257\*: Small Scale Metal Construction II. (3)**

A continuation of Art St 157. Fabrication skills are further developed and refined. Emphasis is on developing a deeper understanding of form/content as it relates to intimate scale.

Prerequisites: Art St 122, Art St 157. Corequisite: Art St 106.

**Art St 268\*: Ceramics II. (3)**

Continuation of Art St 168 with emphasis placed on the mastery of ceramic processes and the development of a personal aesthetic.

Prerequisites: Art St 122, Art St 168.

**Art St 270\*: Ceramics: Materials and Processes. (3 to a maximum of 6)**

Firsthand experience with the ceramic materials and processes that inform creative work. Explore basic clays, bodies, surfaces, selected processes, kiln design, firings and the relationship of materials to form and content.

Prerequisite: Art St 168.

**Art St 287: Black and White Photography. [Photography II]. (3)**

Continuation of Art St 187, with concentration on photographic techniques and the formal aspects of photographic vision. Prerequisite: Art St 187; pre- or corequisite: Art St 121.

**Art St 288: Introduction to Color Photography. (3)**

The techniques and aesthetics of color photography.

Prerequisites: Art St 187; Pre- or corequisites: Art St 121.

**Art St 289: Introduction to Digital Photography. (3)**

The techniques and aesthetics of digital imaging using Photoshop as a primary tool.

Prerequisite: Art St 187; pre-or corequisite: Art St 121.

**Art St 298T\*: Topics. (1-3)**

Titles will vary.

CR/NC

**Arts and Sciences**

**A & S 198: Introduction to Undergraduate Study. (3)**

Develops academic skills through study of the content areas including scholarship, research, comprehension, analysis, synthesis, evaluation, application, critical thinking and communication of ideas.

Corequisite: Some sections may require coregistration in another specified course.

**Arts and Sciences  
Cooperative Education Program**

**AS COP 105: Cooperative Work Phase. (0)**

A mechanism for registered work phase students from the College of Arts and Sciences as full time students while working.

CR/NC.

**AS COP 209: Evaluation of Arts and Sciences Cooperative Work Phase I. (1-3)**

Provides the means for obtaining 1-3 hours of credit for a project related to co-op work experience. Students must consult a departmental advisor about what kind of project would be acceptable.

CR/NC.

## Astronomy and Physics

### ASTRONOMY

#### **Astr 101: Introduction to Astronomy. (3)**

Conceptual description of our fascinating universe: early astronomy, Newtonian, synthesis, Earth, Moon, planets, asteroids, comets, the Sun, our solar system, stars, black holes, galaxies, dark matter, dark energy and cosmological mysteries.

#### **Astr 101L: Astronomy Laboratory. (1)**

Intended as an adjunct to Astr 101, this course deals with elementary techniques in astronomical observations.

Pre- or corequisite: Astr 101.

### PHYSICS

#### **Physcs 102: Introduction to Physics. (3)**

Designed to introduce non-science majors to basic concepts, laws and skills in physics, in various applications to ordinary life. Energy, momentum, force, wave phenomena, electric charge and photons are discussed, also basic properties of gravitational, electromagnetic and nuclear forces. Selections from relativity, quantum theory, atoms and molecules will be included. See Physcs 102L for an optional laboratory.

#### **Physcs 102L: Physics Laboratory. (1)**

Students involve themselves in experiments and projects showing basic concepts related to the atom, the environment and the universe.

Pre- or corequisite: Physcs 102.

#### **Physcs 105: Physics and Society. (3)**

Designed to introduce non-science majors to basic concepts, laws and skills in classical and quantum physics as a basis to discuss the interrelationships of society and physics. Examples where energy, momentum, special relativity, thermal physics, quantum and nuclear physics have important roles are discussed; these could include meteorology, aviation weather, fission and fusion reactors, science policy and ethics, alternative energy sources.

#### **Physcs 151: General Physics. (3)**

Mechanics, sound, heat. The sequence 151, 151L, 152, 152L is required of pre-medical, pre-dental, and pre-optometry students.

Only 151 and 152 are required of pharmacy students.

Prerequisites: A working knowledge of algebra at the level of Math 150, and of trigonometry [Math 123].

#### **Physcs 151L: General Physics Laboratory. (1)**

Mechanics, sound, heat.

Pre- or corequisite: Physcs 151.

#### **Physcs 152: General Physics. (3)**

Electricity, magnetism, optics.

Prerequisite: Physcs 151.

#### **Physcs 152L: General Physics Laboratory. (1)**

Electricity, magnetism, optics.

Pre- or corequisite: Physcs 152.

#### **Physcs 157: Problems in General Physics. (1)**

Problem solving and demonstrations related to Physcs 151.

Corequisite: Physcs 151.

CR/NC.

#### **Physcs 158: Problems in General Physics. (1)**

Problem solving and demonstrations related to Physcs 152.

Corequisite: Physcs 152.

CR/NC.

#### **Physcs 160: General Physics. (3)**

Mechanics, sound. (The sequence 160, 160L, 161, 161L, 262, 262L is required of students planning to major in certain sciences and in engineering.)

Pre- or corequisite: Math 162.

#### **Physcs 160L: General Physics Laboratory. (1)**

Mechanics, sound.

Pre- or corequisite: Physcs 160.

#### **Physcs 161: General Physics. (3)**

Heat, electricity, magnetism.

Prerequisite: Physcs 160; pre- or corequisite: Math 163.

#### **Physcs 161L: General Physics Laboratory. (1)**

Heat, electricity and magnetism.

Pre- or corequisite: Physcs 161.

#### **Physcs 167: Problems in General Physics. (1)**

Problem solving and demonstrations related to Physcs 160.

Corequisite: Physcs 160.

CR/NC.

#### **Physcs 168: Problems in General Physics. (1)**

Problem solving and demonstrations related to 161.

Corequisite: Physcs 161.

CR/NC.

#### **Physcs 262: General Physics. (3)**

Optics, modern physics.

Prerequisite: Physcs 161; pre- or corequisite: Math 264.

**Physcs 262L: General Physics Laboratory. (1)**

Optics, modern physics.

Pre- or corequisite: Physcs 262.

**Physcs 267: Problems in General Physics. (1)**

Problem solving and demonstrations related to Physcs 262.

Corequisite: Physcs 262.

CR/NC.

## Automotive Technology

**Auto T 193T: Topics. (1-6)**

Titles will vary.

**Auto T 293T: Topics. (1-6)**

Titles will vary.

## Banking Technology

**Bank T 192T: Topics. (1-3)**

Titles will vary.

CR/NC.

**Bank T 193T: Topics. (1-3)**

Titles will vary.

## Biology

**Biol 105T: Current Issues in Human Biology (3)**

Intended for the student with minimum previous exposure to science. The concepts and methodology of biology are developed as a basis for a discussion of current issues in areas such as reproduction, cloning, heredity, human genome, diet, exercise physiology, emerging diseases, human ecology.

**Biol 110: Biology for Non-Majors. (3)**

Biological principles important for the non-major in today's world. Ecological, evolutionary, and molecular topics.

Credit not allowed for both Biol 110 and either Biol 121L –122L or Biol 123

**Biol 112L: Biology Laboratory for Non-Majors. (1)**

An optional laboratory which may be taken concurrently with or subsequent to Biol 110. One 3-hour lab per week including plant and animal diversity, techniques, and investigation of current issues.

**Biol 123 [123L]: Biology for Health Related Sciences and Non-Majors. (3)**

Principles of cell biology, genetics and organismic biology.

Credit not allowed for both Biol 123 and either Biol 121L – 122L or Biol 110. Not accepted toward a Biology major.

**Biol 124L: Biology for Health Related Sciences and Non-Majors Lab. (1)**

One credit optional laboratory to accompany Biol 123.

Pre- or corequisite: Biol 123.

**Biol 201: Molecular and Cell Biology. (4)**

The scientific method, the role of water in cell biology, carbon and molecular diversity, macromolecules, introduction to metabolism, tour of cell structures and functions, membrane structure and function, cellular respiration, photosynthesis, cell communication, and the cell cycle.

Corequisite: Chemistry 121L or 131L.

**Biol 202: Genetics. (4)**

Mitosis, meiosis, Mendelian genetics, chromosomes and inheritance, molecular basis of inheritance, genes to proteins, genetic models (viruses and bacteria), eukaryotic genomes, genetic basis of development, and overview of genomes.

Prerequisites: Biol 201, Chem 121L or Chem 131L.

Corequisite: Chem 122L or Chem 132L.

**Biol 203L: Ecology and Evolution. (4)**

Darwinian principles, origin of the earth, the fossil record and diversification of ancient life, evolution of populations, origin of species, phylogenetics, introduction to ecology and the biosphere, behavioral ecology, population ecology, community ecology, ecosystem ecology, and conservation biology. Lab material includes a survey of the diversity of life.

Prerequisites: Biol 201 and Biol 202, Chem 121L and Chem 122L, or Chem 131L and Chem 132L. Corequisite: Math 162 or Math 180.

**Biol 204L: Plant and Animal Form and Function. (4)**

Plant structure and growth, transport in plants, plant nutrition, plant reproduction and development, control systems in plants, introduction to animal systems, animal nutrition, circulation and gas exchange, immune systems, control of the internal environment, chemical signals in animals, reproduction, development, nervous systems, and sensory and motor mechanisms.

Prerequisites: Biol 201 and Biol 202, Chem 121L and Chem 122L or Chem 131L and Chem 132L.

**Biol 227L: Human Anatomy and Physiology Lab I. (1)**

Laboratory work using cats. Anatomy stressed with appropriate physiological work. Topics integrated with Biol 237.

Pre- or co-requisite Biol 237. 2 hrs. lab.



**Biol 228L: Human Anatomy and Physiology Lab II. (1)**

Continuation of Biol 227L. Topics integrated with Biol 238.

Pre- or corequisite Biol 238. 2 hrs. lab.

**Biol 237: Human Anatomy and Physiology I for the Health Sciences. (3)**

An integrated study of human structure and functions of the skeletal, muscular, nervous, and cardiovascular systems. Prerequisites: Biol 121L or Biol 123/124L and 4 hrs. of general chemistry.

**Biol 238: Human Anatomy and Physiology II for the Health Sciences. (3)**

Continuation of Biol 237. Cardiovascular, respiratory, digestive, excretory, reproductive, and endocrine systems.

Prerequisite: Biol 237.

**Biol 239L: Microbiology for Health Sciences and Non-Majors. (4)**

Introduction to microbiology with emphasis on principles of infection and immunity.

Prerequisites: Biol 121L or Biol 123/124L and 4 hrs. of chemistry. Not accepted toward a biology major. 4 hrs. lab required for pharmacy students, 3 hrs. lab required for nursing and dental hygiene students.

Credit not allowed for both Biol 239L and Biol 351L - Biol 352L.

**Business Technology**

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

**Bus-Tc 111T: Keyboarding I. (2)**

Use of the touch system in learning basic typewriting skills and applications.

**Bus-Tc 112T: Keyboarding II. (3)**

Development of speed and accuracy in business letters, forms, manuscripts, and tabulations.

Prerequisite: Bus-Tc 111T or knowledge of typewriter keyboard and operation.

**Bus-Tc 114T: Customer Service and Relations. (1)**

Examines techniques for successful customer service, how to handle difficult and irate customers, customer complaints, and to build relationships with internal and external clients.

**Bus-Tc 115T: Time Management. (1)**

Examines methods of managing personal and professional time during the workday.

**Bus-Tc 116T: Stress Management for the Workplace. (1)**

Examines techniques and tips for managing stress in the work environment.

**Bus-Tc 117T: Organization Skills for the Workplace. (1)**

Examines techniques for organizing workplace space and filing systems.

**Bus-Tc 118T: Conflict Resolution for the Workplace. (1)**

Examines techniques for identifying and resolving conflict in the work environment.

**Bus-Tc 125T: Introduction to Business Environment. (3)**

Examines the role of office administration in the workplace: office organization, work flow, communication, automation of tasks, goal-setting, planning, decision-making, time management.

Prerequisite: Bus-Tc 264T.

**Bus-Tc 126T: Introduction to Supervision. (3)**

Course prepares student for a career in office administration. Topics: fundamentals of legal and regulatory compliance issues in the workplace, professional ethics, budgeting, cost/procurement controls, employment management. Prerequisite: Bus-Tc 125T.

**Bus-Tc 164: Introduction to Word. (1)**

Basic word processing applications and terminology using Word software on IBM Systems.

Keyboarding skills recommended.

CR/NC

**Bus-Tc 192T\*: Topics. (1-3)**

Titles will vary.

CR/NC.

**Bus-Tc 193T\*: Topics. (1-3)**

Titles will vary.

**Bus-Tc 202T: Business Applications on Microcomputers. (3)**

Course combines basic principles of accounting with microcomputers to quantify, measure, report business activities. Computer used to prepare general ledger systems, payables, payroll, inventory, and equipment studies.

Prerequisites: Mgt 101 and CT 102LT.

**Bus-Tc 203T: Business Communication. (3)**

Course emphasizes theory and application of customer contact skills, questioning and listening techniques, business etiquette, multicultural awareness, letter and memorandum writing, the job application process and interviewing, and conflict resolution.

**Bus-Tc 204T: Human Relations in Business. (3)**

Human relations in the work environment will be studied. Topics: principles of office management, interviewing, hiring, supervising, evaluating performance, organizational skills, communications, interpersonal relationships, stress management.

**Bus-Tc 205T: Financial Information Processing and Decision Making. (3)**

Financial statements and data are examined to make business decisions. Desktop computers are used to prepare analysis. Topics: statement analyses, forecasting, budgeting, investments, asset selection, credit policies, tax planning.

Prerequisites: Mgt 101 and CT 102LT.

**Bus-Tc 206T: Business Ownership and Marketing. (3)**

Material will cover the small business environment, economics, entrepreneurship, marketing, and management. Prerequisite: Mgt 113.

**Bus-Tc 210T: Intermediate Accounting I. (3)**

A review and extension of financial accounting fundamentals and further analysis of individual items on the balance sheet. Present value concepts and applications. FASB statements.

Prerequisite: Mgt 102 with a C or better.

**Bus-Tc 211T: Intermediate Accounting II. (3)**

A continuation of Bus-Tc 210T, analysis of balance sheet items, pensions, leases, accounting for income taxes, accounting changes and errors, and financial statement analysis.

Prerequisite: Bus-Tc 210T with grade of C or better.

**Bus-Tc 212T: Introduction to Income Tax. (3)**

IRS code and regulations as they pertain to the individual. Includes capital gains and losses, accounting methods, income, deductions, social security, installment sales and alternative tax methods.

**Bus-Tc 213T: Auditing. (3)**

Concepts and standards of independent auditing, integrating them with contemporary audit methods and with the judgment and decision processes common to audit procedure.

Prerequisite: Bus-Tc 210T with grade of C or better.

**Bus-Tc 214T: Governmental/Not for Profit Accounting. (3)**

Theory and practice of accounting in not for profit organizations, municipalities, federal government, public schools, universities, and health organizations. Fund accounting, zero-based budgeting, financial audits and operations audit. Prerequisite: Bus-Tc 210T or permission of instructor.

**Bus-Tc 218T: Business Law. (3)**

Introduction to the legal environment of business organizations: common, constitutional, and statutory law; agreements and contracts; regulation and regulatory agencies.

Prerequisite: Mgt 113 or permission of instructor.

**Bus-Tc 220T: Management Accounting. (3)**

Course includes the role of accounting in the management information system, collection and processing of data for management decisions.

Prerequisites: Mgt 101 and Mgt 102, or Mgt 202 and Mgt 113.

**Bus-Tc 264T: Word Processing I (3)**

Fundamentals of word processing: file creation; editing and management; text manipulation; application to common business documents.

Prerequisites: Bus-Tc 111T or permission of instructor.

**Bus-Tc 274T: Word Processing II. (3)**

Advanced word processing skills: document assembly, merging, sorting, styles, complex tables, charts, business and scientific functions, camera-ready documents.

Prerequisite: Bus-Tc 264T.

**Bus-Tc 292LT\*: Topics. (1-3)**

Titles will vary.

CR/NC.

**Bus-Tc 293LT\*: Topics. (1-3)**

Titles will vary.

**Bus-Tc 296LT: Business Cooperative Work Phase 1, 2, or 3. (1-3)**

A work-study program with local businesses to give students a practical experience in a business environment. Prerequisites: Third or fourth semester standing and permission of the Technology Coordinator.

CR/NC.

## Chemistry

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

### **Chem 111L: Elements of General Chemistry.**

**(4)**

One-semester course in general chemistry, especially for non-science majors in the health sciences except premedicine and medical technology.

(Credit not allowed for both Chem 111L and Chem 121L.)

### **Chem 121L: General Chemistry. (4)**

Introduction to the chemical and physical behavior of matter.

Prerequisite: completion of Math 121 or Math 150 with a grade of C or better; or a math placement score which qualifies the student for Math 162 or Math 180.

### **Chem 122L: General Chemistry. (4)**

Continuation of Chem 121L.

Prerequisite: Chem 121L or Chem 131L with grade of C or better.

### **Chem 192T\*: Topics. (1-3)**

Titles will vary.

CR/NC

### **Chem 193T\*: Topics. (1-3)**

Titles will vary.

### **Chem 212: Integrated Organic Chemistry and Biochemistry. (4)**

Survey interrelating the major principles of organic chemistry and biochemistry with special emphasis toward interests of students in the health sciences.

Prerequisite: Chem 111L or Chem 121L. (Credit not allowed for both Chem 212 and Chem 301.)

### **Chem 253L: Quantitative Analysis. (4)**

Theory and techniques of chemical analysis.

Prerequisite: Chem 122L.

Students should make every effort to complete Chem 253L within two semesters of completion of Chem 122L.

## Classics

### **Clscs 107: Greek Mythology. (3)**

Introduction to mythology: primary readings in stories about the gods and heroes, usually including Homer, Hesiod, Homeric Hymns and Tragedies. All text will be in English.

Also offered as Engl 107 and Greek 107

### **Clscs 204: Greek Civilization. (3)**

An interdisciplinary introduction to the ancient world as the foundation of modern civilization. Lectures on classical art, history, literature, and philosophy.

Also offered as Art Hi 204, Hist 204, Phil 204

### **Clscs 205: Roman Civilization. (3)**

An interdisciplinary introduction to ancient Rome. Lectures on Roman literature, history, art, and philosophy.

Also offered as Art Hi 205, Hist 205, Phil 205

## Communications and Journalism

### **C & J 101L: Introduction to Communication. (3)**

Principles and concepts of various types of human communication, including interpersonal, small group, organizational, public and mass communication. 2 hrs. lecture, 1 hr. Lab.

### **C & J 110: Introduction to Mass Communication. (3)**

The development of the mass media with emphasis on television in the areas of programming, policy, regulations, economics and technology. Examination of the social, cultural, and political impact of the mass media on contemporary society. 2 hrs. lecture. 1 hr. Lab.

Also offered as M A 110

### **C & J 115: Communication Across Cultures. (3)**

An introduction to communication among people from different cultural backgrounds, emphasizing intercultural relations. The class seeks to identify, honor and enhance the strengths of different cultural perspectives.

### **C & J 130: Public Speaking. (3)**

A performance course that deals with analysis, preparation, and presentation of speeches.

### **C & J 171L: Writing for the Mass Media. (3)**

Practical introduction to journalism, emphasizing journalistic conventions and the gathering and writing of news for the print and broadcast media. Language and typing skills required.

Prerequisites: 15 hours, 2.00 GPA, Engl 102.

### **C & J 220: Communication for Teachers. (3)**

Concepts and practices of interpersonal, small group and public communication pertinent to classroom teachers at the elementary, middle and secondary levels of education.

**C & J 221: Interpersonal Communication. (3)**

Analysis of a variety of interpersonal communication concepts with special emphasis on the application of communications skills in different situations.

**C & J 225: Small Group Communication. (3)**

Basic characteristics and patterns of communication in small groups. Includes attention to role theory, conflict resolution, and creative decision-making methods.

**C & J 293: Topics. (1-3)**

Topics will vary.

## Community and Regional Planning

**CRP 203: Society and the Environment. (3)**

Introduction to environmental and natural resource issues of both global and local scale. Investigates basic causes and consequences of environmental problems, including interrelated physical and social science dimensions.

Also offered as Econ 203

## Computer Science

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

**CS 101LT: Introduction to Computing Science. (4)**

An Introductory course covering the computer terminology, applications, and characteristics that a student would encounter in a CS degree. Students will learn introductory UNIX and how to run existing programs.

**CS 102LT: Introduction to UNIX. (1)**

For the computer novice. Students will be shown the UNIX commands needed in a computer-programming course. UNIX topics: electronic mail, file manipulation and creation, line/screen editors, and program compilation.

CR/NC

**CS 103LT: Advanced UNIX. (1)**

Focuses on shell scripts and shell programming, processes and job control; user tools; UNIX networking concepts; simple system administration; introduction to Perl scripting

Prerequisites: Either CS 102LT or CS 101LT, and CS 151L, or permission of the instructor.

CR/NC

**CS 110LT: Introduction to C++ for Experienced Programmers. (1)**

Intended to teach the beginning syntax of C++ to students who already have programming experience with another structured programming language such as FORTRAN, PASCAL, or C. Covers simple and enumerated types, I/O, looping, branching, functions and parameter passing, single and multi-dimensional arrays, structures. CLASSES and OOP will not be covered.

Prerequisite: previous programming experience in FORTRAN, PASCAL, or C; UNIX familiarity  
CR/NC

**CS 130T: Introduction to Problem Solving Strategies. (3)**

Presents a wide variety of problem solving strategies to build skill in problem solving. Emphasizes creative/lateral thinking techniques and good communication skills. Uses both technical and non-technical problems to practice skill development.

Prerequisite: CS 101LT

**CS 150L: Computing for Business Students. (3)**

Students will use personal computers in campus laboratories to learn use of a word processor, a spreadsheet, and simple database management program and how to program. The course will also cover access to the World Wide Web and other topics of current importance to business students.

Course cannot apply to major or minor in Computer Science.

Prerequisite: Math 120.

**CS 151L: Computer Programming Fundamentals for Non-Majors [in C++]. (3)**

An introduction to the art of computing. Not intended for Computer Science majors or minors. The objective of the course is an understanding of the relationship between computing and problem solving. Programs will be written in C++.

Prerequisites: Math 150 and either CS 101LT or CS 102LT.

**CS 152L: Computer Programming Fundamentals for Computer Science Majors [in Java]. (3)**

An introduction to the art of computing. Intended for Computer Science majors or minors. The objective of the course is an understanding of the relationship between computing and problem solving. Programs will be written in Java.

Prerequisites: Math 150 and either CS 101LT or CS 102LT.

**CS 160T: Introduction to Java. (3)**

This course introduces writing object-oriented programs with the JAVA language. It introduces JAVA applications and the writing of JAVA applets.

Prerequisite: CT 102LT.

**CS 170T: Introduction to Visual Basic. (3)**

Introduces how to program in a Windows environment using Visual Basic. Fundamental programming techniques will be discussed. Students will learn procedural programming, how to develop a graphical user interface in Windows, and how to work with events and objects.

Prerequisite: CT 102LT.

**CS 180LT: Introduction to PERL (3)**

This introductory course introduces PERL, practical extraction report language. It will focus on the following topics: Scalar data, Control structures, Basic I/O, Directory Access, File and Directory Manipulation, Process Management, System Database Access, and CGI Scripting.

**CS 192LT\*: Topics. (1-3)**

Titles will vary.

CR/NC.

**CS 193LT\*: Topics. (1-3)**

Titles will vary.

**CS 220LT: Systems Analysis and Design. (3)**

An overview of the system development lifecycle. Emphasis on current system documentation through the use of classical, structured, and object-oriented tools/techniques for describing program specifications.

Prerequisite: CS 151L or CS 152L or CS 160LT or a full semester of programming.

**CS 241L: Data Organization. (3)**

Data representation, storage and manipulation. Covers the memory organization of data storage and its relation to computation and efficiency. Topics include: linked vs. contiguous implementations, memory management, the use of indices and pointers, and an introduction to issues raised by the memory hierarchy. Programming assignments in C provide practice with programming styles that yield efficient code and computational experiments investigate the effect of storage design choices on the running time of programs.

Prerequisite: CS 152L or equivalent.

**CS 251L: Intermediate Programming. (3)**

An introduction to the methods underlying modern program development. Specific topics will include object-oriented design and the development of graphical user interfaces. Programming assignments will emphasize the use of objects implemented in standard libraries.

Prerequisite: CS 152L

**CS 257L: Nonimperative Programming. (3)**

Experience with applicative/functional programming languages (Scheme). Lists, recursion, associative arrays, trees. User interface toolkits. Graphics.

Prerequisite: CS 152L

**CS 259LT: Introduction to Object Oriented Programming. (2)**

Focuses on applying the advanced features of JAVA including exceptions, threads, inheritance, and polymorphism. This projects course stresses the design (using UML), development, and testing of larger programs using the Object paradigm.

Prerequisite: CS 251L

**CS 260LT: Introduction to Applied Software Engineering. (2)**

An introduction to the methodologies and tools used in a disciplined life-cycle approach to the development of large software systems. Design goals and principles will be emphasized and current methodologies such as data flow, structured design, and object-oriented design will be explored. Team programming.

Prerequisites: CS 220LT and CS 251L.

**CS 261: Mathematical Foundations of Computer Science. (3)**

Introduction to the formal mathematical concepts of computer science for the beginning student. Topics include elementary logic, induction, algorithmic processes, graph theory, and models of computation.

Prerequisites: CS 152L and Math 162.

**CS 290LT\*: Topics (1-3)**

Titles will vary

**CS 292LT\*: Topics. (1-3)**

Titles will vary.

CR/NC.

**CS 293L: Social and Ethical Issues in Computing. (1-3)**

Overview of philosophical ethics, privacy and databases, intellectual property, computer security, computer crime, safety and reliability, professional responsibility and codes, electronic communities and the Internet, and social impact of computers. Students make oral presentations and produce written reports.

Prerequisite: Only open to students admitted into a bachelor's degree program in CS, or who have completed approximately 12 hours of the core requirements in Computer Science.

## Computer Technology

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

### **CT 101LT: Introduction to Computing on Microcomputers. (1)**

Fundamentals of using microcomputers; Logging on, saving work to disks, operating system basics, using software, using the UNM-LA network.

### **CT 102LT: Introduction to Microcomputers on the PC. (4)**

An overview of the use of computers and data processing in today's society. Discusses PC history, terminology, and applications. Introduces the rudiments of a word processor (Word), a PC database (Access), and a PC spreadsheet (Excel).

### **CT 103LT: Introduction to Spreadsheets. (1)**

Basic terminology and practical applications of spreadsheets: moving around the spreadsheet, commands, formatting, function operations, printing, and graphing.

CR/NC

### **CT 104LT: Introduction to Relational Databases. (1)**

Introduces fundamentals of relational databases and database software; basics of database creation, entering and editing data, creating and using forms, creating and printing reports, customizing fields and tables, and integrating with other data sources and the Internet.

CR/NC

### **CT 105LT: Introduction to the Macintosh. (1)**

Overview and demonstration of Macintosh and its programs. Topics include the Macintosh operating system (file and folder management, using disks, system preferences settings), and the basics of typical applications such as word processing, spreadsheets, desktop publishing, databases, and web browsing.

### **CT 106LT: Microsoft Word on the Macintosh. (1)**

The use of Microsoft Word for the Macintosh computer.

Prerequisite: CT 105LT or permission of instructor.

### **CT 107LT: Microsoft Excel. (1)**

The use of Microsoft Excel for the Macintosh computer.

Prerequisite: CT 105LT or permission of the instructor.

### **CT 109LT: Desktop Publishing on the Macintosh. (1)**

Introduces page layout software for desktop publishing. Topics include placing text and graphics on the page, type manipulation and formatting, graphics placement and text

flow, basic drawing tools, and plug-ins.

Prerequisite: CT 105LT.

### **CT 110LT: Introduction to Multimedia. (2)**

Introductory class to give the students fundamental multimedia skills. Class will include the theory and fundamental use of multimedia. Class will prepare the students to take further classes in such subjects as: web page design, and presentation graphics. Students will learn the theory of multimedia including: terminology, audio and visual aspects of design. Students should have a fundamental understanding of windows '95 and the Internet.

Prerequisite: CT 101LT or permission of the instructor.

### **CT 111LT: Introduction to Computer Aided Design and Drafting. (3)**

Entry-level course intended for the technician or draftsman interested in the use of computer aided design in an engineering environment.

Prerequisite: CT 101LT or CT 102LT, and a basic knowledge of drafting techniques.

### **CT 114LT: Academic Literacy Skills. (1)**

Introductory class to give students fundamental academic computer skills on PC and Mac computers. Class will be evenly divided between the two hardware environments. Software topics to be covered are UNM-LA's local area network computer environment, word processing software, connecting to the UNM library, and electronic mail.

### **CT 116LT: Advanced Microsoft Word on the Macintosh. (1)**

Advanced uses of Microsoft Word for Macintosh computers. Topics include mail merges, printing labels; formulas; paragraph and section commands; headers, footers, footnotes, outlines, indexes, tables of contents; sorting; calculation commands.

Prerequisite: CT 106LT.

### **CT 119LT: Intermediate Computer-Aided Design and Drafting. (3)**

Topics will include two and three-dimensional drafting, three-dimensional wireframe and hidden line modeling, and basic system automation utilizing script files, menu customization, and the AutoLISP programming language.

Prerequisite: CT 111LT

### **CT 120LT: Introduction to Microcomputers on the Macintosh. (3)**

Course introduces the student to Macintosh computers, computer terminology, hardware and software. Topics covered include using the Macintosh operating system, Microsoft Word, Microsoft Excel, and basic Internet applications.

**CT 121LT: Introduction to Appleworks. (1)**

Provides an understanding of an integrated system for word processing, spreadsheets, databases and communication programs.

Prerequisite: CT 105LT or permission of instructor.

**CT 131LT: Introduction to Windows. (1)**

Provides a practical approach to using Microsoft's most popular operating systems. Emphasis will be on the basic structure of Windows, file types and hierarchy, and how to find things on the system. Troubleshooting of the operating system will also be covered.

**CT 140LT: Introduction to PowerPoint. (1)**

Students learn the rudiments of PowerPoint to create slide shows, graphs, and organizational charts; work with text, drawings, clip art, templates, and special effects.

**CT 142LT: Introduction to Internet on Macintosh. (1)**

Introduces the student to the fundamentals of using the Internet from a Macintosh computer in the UNM-Los Alamos local area network. This course will cover the local area network, the background of the Internet, and the many resources available to the Internet user, such as electronic mail, FTP file transfer, Usenet news groups, and World Wide Web sites. A fundamental knowledge of using the Macintosh is assumed.

**CT 143LT: Microsoft Word on the PC. (1)**

Designed to introduce students to using Microsoft Word. Students will learn to create and save documents, using existing documents and how to edit their text. Students will also learn to delete selected text and undo margins and tabs.

**CT 144LT: Introduction to HTML. (1)**

Introduction to creating web pages using hypertext Markup Language (HTML). Students learn to edit HTML in a text editor, create basic web pages, and learn the functions of basic HTML tags for formatting text, linking pages, placing graphics, making tables, and using frames.

**CT 165LT: Introduction to Web Authoring. (3)**

This course is an introduction to making and designing web pages using HTML generating software. Students learn how to make well-designed web pages from simple to the complex. Site creation with text, graphics, tables, Cascading Style Sheets, and simple animation effects are included. Design principles as they apply to the World Wide Web are also presented. Cross-listed as IT 165LT. No knowledge of HTML is required.

**CT 170LT: Introduction to INTERNET. (1)**

Designed to introduce students to fundamentals of working in the INTERNET from a PC, UNM-Los Alamos local network. Covers local area network, background of INTERNET, and services available and electronic mail.

Prerequisite: CT 101LT or CT 102LT

**CT 192LT\*: Topics. (1-3)**

Titles will vary.

CR/NC.

**CT 193LT\*: Topics. (1-3)**

Titles will vary.

**CT 201LT: Applications of Relational Databases. (4)**

A basic understanding of the hierarchical, network and relational database models, with emphasis placed on relational model. Introduces fundamentals of relational databases and database software. Students will construct a relational database using current UNM-LA microcomputer software.

Prerequisite: CT 102LT or permission of instructor.

**CT 202LT: Applications of Spreadsheets. (3)**

Introduces fundamentals of spreadsheets and spreadsheet software; formatting, formulas and functions, charts and objects, sorting and filtering, data validation, consolidated views and reports, pivot tables and charts, software auditing and collaborative tools, and integrated spreadsheet applications.

Prerequisite: CT 102LT or permission of instructor.

**CT 203LT: Introduction to Desktop Publishing. (3)**

Introduction to Desktop Publishing software and page design concepts on the personal computer. Topics: importing files, interaction with word processor/text editor, creating/using style sheets, editing/manipulating text, simple graphics, desktop publication. Cross-listed as DMA 203LT.

Prerequisite: CT 105LT or CT 120LT.

**CT 210LT: Intermediate Microsoft Windows. (2)**

Operating techniques such as system back ups, security and communications are the primary focus. Discussions of advanced techniques such as the registry and troubleshooting will be included.

Prerequisite: CT 102LT or CT 101LT or CT 131LT or permission of instructor.

**CT 222LT: Microcomputer System Architecture. (2)**

Introduction to microcomputers at system level. Relationships and interworking of microcomputer's major components. Interactions of applications software, operating system software and system hardware will be examined.

Prerequisite: CT 210LT and a programming language

course.

**CT 292LT\*: Topics. (1-3)**

Titles will vary. CR/NC.

**CT 293LT\*: Topics. (1-3)**

Titles will vary.

**CT 296LT: Microcomputer Technology Cooperative Work Phase 1, 2, or 3. (1-3)**

A work-study program with local industry to give the student practical experience in an industrial environment.

Prerequisites: Third or fourth semester standing and permission of the Technology Coordinator.

**Cooperative Education Program**

CR/NC.

Students enrolled in the Cooperative Education Program are required to register in E Coop 105 and encouraged to enroll in one of the appropriate courses during the semester. Permission of Cooperative Education Coordinator is required.

**E Coop 105: Cooperative Education Work Phase. (0)**

**E Coop 109: Evaluation of Cooperative Education Work Phase 1. (1)**

CR/NC.

**E Coop 110: Evaluation of Cooperative Education Work Phase 2. (1)**

CR/NC.

**E Coop 209: Evaluation of Cooperative Education Work Phase 3. (1)**

CR/NC.

**Bus-Tc 296LT: Business Cooperative Work Phase 1, 2, or 3. (1)**

CR/NC.

**CT 296LT: Microcomputer Technology Cooperative Work Phase 1, 2, or 3. (1-3)**

CR/NC.

**Elect T 296LT: Electronics Technology Cooperative Work Phase 1, 2, or 3. (1-3)**

CR/NC.

**IT109LT: Information Technology Cooperative Education. (1-3)**

A work-study program with local industry to give the student practical experience in an industrial environment doing technology work.

Prerequisite: Third or fourth semester standing and permission of Technology Coordinator.

**MST 296T: Materials Science Technology Cooperation Work Phase (1)**

**Digital Media Arts**

CR/NC.

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

**DMA 101LT: Introduction to Digital Imaging & Scanning. (1)**

Students learn to make images with a computer and scanner, as well as study basic concepts of digital imaging/digital photography. This leads to an understanding of the requirements for achieving image quality as it applies to screen display (world wide web) or for printed output.

Prerequisite: CT 105LT or CT 120LT or permission of instructor.

**DMA 165LT: Introduction to Digital Media Arts I (Photoshop). (3)**

This course serves as an introduction to the computer as an image-making device using raster-imaging software (Adobe Photoshop). It includes the making and manipulating of images derived from photography and other traditional media. Included also is the digital preparation of imagery for printed and display (Web) output.

Prerequisite: DMA 101LT and either CT 105LT or CT 120LT or permission of instructor.

**DMA 166LT: Digital Media Arts II (Illustrator). (3)**

This course is an introduction to the computer as an image-making device using vector-imaging software (Adobe Illustrator). It includes the creation and manipulation of digital imagery derived from traditional graphic design, including typography and illustration graphics. Students will design logo art and other projects aimed for printed and screen display.

Prerequisite: DMA 101LT and either CT 105LT or CT 120LT or permission of instructor.



### **DMA 168LT: Multiple Image Graphics (Photoshop). (1-3)**

Students who have introductory experience in Photoshop concentrate making imagery that requires the use of selection tools, masks, alpha channels, layers and blending modes. Such examples include selective alterations to individual images and multiple-image montage. While photography is the most common source material for these techniques, students are also encouraged to use these Photoshop techniques for digital painting and printmaking.

Prerequisite: DMA 165LT or permission of instructor.

### **DMA 175LT: Digital Imaging and Photography (Photoshop). (3)**

This course concentrates on raster imaging as it pertains to digital photography. A survey of digital still cameras and other hybrid imaging devices, the preparing of imagery for print via color management procedures, and immersive Imaging are included in this course. This course also advances techniques and issues introduced in DMA 165LT.

Prerequisite: DMA 165LT.

### **DMA 193T: Topics. (1-3)**

Titles will vary.

### **DMA 203LT: Introduction to Desktop Publishing. (3)**

Introduction to Desktop Publishing software and page design concepts on the personal computer. Topics: importing files, interaction with word processor/text editor, creating/using style sheets, editing/manipulating text, simple graphics, and desktop publication. Cross-listed as CT 203LT.

Prerequisite: CT 105LT or CT 120LT.

### **DMA 240LT: Audio/Video for the Web (3)**

This course serves as an introduction to digital video (with audio) and its unique aesthetic criteria. This class' focus is the creation and use of video projects for integration into interactive projects, either for a single participant or for mass Internet presentations, or for the creation of a standalone project.

Prerequisite: DMA 101LT.

### **DMA 250LT: Web Animation and Interactive Multimedia Design. (3)**

This course will introduce tools for making interactive multimedia projects in combination with animation (moving image). It will focus on design issues relative to non-linear interactive web sites, games, books, training modules, or experimental projects. Basic Theories and techniques of Animation will also be covered. These projects will be designed primarily for the World Wide Web, however options will be presented for non-web applications. May be repeated for credit.

Prerequisite: DMA 166LT.

### **DMA 270LT: Special Projects in Web/Multimedia. (3)**

Students enrolled in this course to concentrate on a specific project, a specific area of multi-media, or to refine their techniques in making well designed web or interactive projects. This course will introduce critical thinking about web aesthetics and culture. Students will research well-designed or aesthetically experimental sites and present their findings as well as work toward utilizing these principles to improve their own projects. May be repeated for credit.

Prerequisites: DMA 250LT and IT 165LT.

### **DMA 280LT: Web Design, Layout, and Construction (3)**

This course introduces graphic design principles with regard to World Wide Web site creation. It also introduces critical thinking about web aesthetics and culture. Students will research existing well-designed or aesthetically experimental sites and present their findings. Students also will work toward improving the graphic design of their own site projects through the application of these principles.

## **Drafting Technology**

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

### **Draft 101LT: Introduction to Drafting. (3)**

Intended as a first course for students with no previous exposure to drafting. The class will include hands-on drawing in class and will introduce basic topics in drafting methods.

### **Draft 119LT: Drafting/Blueprint Reading. (3)**

Fundamentals of technical industrial communication: drafting, sketching, blueprint reading, layout work in specialized areas; visualization and interpretation of blueprints and sketches of parts, assemblies, and processes.

Prerequisite: Draft 101LT

### **Draft 192LT\*: Topics. (1-3)**

Titles will vary.

CR/NC.

### **Draft 193LT\*: Topics. (1-3)**

Titles will vary.

### **Draft 220LT: Fundamentals of Geometric Dimensioning and Tolerancing. (3)**

An introduction to geometric dimensioning and tolerancing (GD & T), according to the American Society of Mechanical Engineers (ASME) Y14.5 standard for engineering drawings. This course will develop an understanding to specify or interpret GD & T per industry blueprints, the effects on part function, and the inspection procedures to verify those specifications.

Prerequisites: Draft 101LT and Draft 119LT or combination of education/job experience.

## **Early Childhood Multicultural Education (ECME)**

### **ECME 101: Child Growth, Development, and Learning. (3)**

This basic course in the growth, development, and learning of young children, prebirth through age eight, provides students with the foundation for becoming competent early childhood professionals and knowledge of how young children grow, develop and learn. Major theories of child development are integrated with all aspects of development, including biological-physical, social, cultural, emotional, cognition, and language domains. The adult's role in supporting each child's growth, development and learning will be emphasized.

### **ECME 103: Health, Safety, and Nutrition. (2)**

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 the prevention of childhood illnesses and communicable diseases. The course examines the many nutritional factors that are important for children's total development, health eating habits, physical activity, and rest. Students gain knowledge necessary for creating safe learning environments for decreasing risk and preventing childhood injury.

### **ECME 111: Family and Community Collaboration I. (3)**

This course examines the involvement of families from diverse cultural and linguistic backgrounds in early childhood programs. Ways to establish collaborative relationships with parents and others involved with children in early childhood settings are discussed. Strategies for communicating with parents and guardians about their children and incorporating the families' goals and desires for their children into the early childhood program will be included.

### **ECME 115: Guiding Young Children. (3)**

This class 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. Appropriate strategies for preventing and dealing with violence, aggression, anger, and stress will be explored. Emphasis is placed on helping children become self-responsible, competent, independent, and cooperative learners.

### **ECME 117: Curriculum Development and Implementation I. (3)**

This beginning curriculum course focuses on developmentally appropriate content in early childhood programs. It addresses content that is relevant for children birth through age eight and 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 and IEPs are included. Curriculum development in all areas, including literacy, numeracy, the arts, health, science, social skills, and adaptive learning for children, birth through age eight, is emphasized.

Corequisite: ECME 117L.

### **ECME 117L: Curriculum Development and Implementation Practicum I. (2)**

This course provides opportunities for students to apply knowledge gained from Curriculum Development and Implementation I and develop skills in planning developmentally appropriate learning experiences for young children from birth through age eight, including young children with special needs. Learning experiences will cover all content areas, including literacy, math, science, social studies, health/wellness, the arts, and adaptive skills for children, birth through age eight.

Corequisite: ECME 117.

### **ECME 202: Introduction to Reading and Literacy Development. (3)**

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 phonemic awareness, literacy problem solving skills, fluency, vocabulary, comprehension, and language development. This course provides the foundation for early childhood professionals to become knowledgeable about literacy development in young children. An integrated language arts perspective and an interdisciplinary approach as it addresses developing writing, reading, and oral language in the home and school contexts will be addressed. Major instructional approaches and strategies to support children's emergent literacy and reading skills will be presented.

### **ECME 217: Curriculum Development and Implementation II. (3)**

This basic course focuses on the learning environment and the implementation of curriculum in early childhood programs. Students will use their knowledge of content, developmentally appropriate practices, and language and culture to design and implement experiences and environments that promote optimal development and learning for children from birth through age 8, including children with special needs. Various curriculum models and teaching and learning strategies will be included.

Corequisite: ECME 217L.

### **ECME 217L: Curriculum Development and Implementation Practicum II. (2)**

This course provides opportunities for students to apply knowledge gained from Curriculum Development and Implementation II and develop skills in planning learning environments and implementing curriculum in programs serving young children, birth through age eight, including those with special needs.

Corequisite: ECME 217.

### **ECME 220: Assessment of Children and Evaluation of Programs I. (3)**

This basic course familiarizes students with a variety of culturally appropriate assessment methods and instruments, including systematic observation. The course addresses the development and use of formative and summative program evaluation 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 230: Professionalism. (2)**

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 practice are examined.

## **Earth and Planetary Science**

### **E & PS 101: How the Earth Works - An Introduction to Geology. (3)**

A fascinating tour of our active planet. Explore earth materials (rocks and minerals), the continents' motions and related origins of earthquakes, volcanoes, mountain building, oceans, landscapes, natural energy and economic resources, global warming and other topics.

Students are encouraged but not required to enroll concurrently in E & PS 105L. Credit not awarded for both E & PS 101 and Env Sc 101.

### **E & PS 105L: Physical Geology Laboratory. (1)**

Minerals, rocks, and topographic and geological maps; field trips.

Pre- or Corequisite: E & PS 101.

### **E & PS 115: Geological Disasters. (3)**

Causes and effects of disastrous geological events, including earthquakes, volcanic eruptions, tsunamis, landslides and floods.

### **E & PS 201L: Earth History (4)**

Origin and history of the earth including age of the planet and dating of rocks, changing configurations of oceans and continents as a result of plate tectonics, records of climate change, history of formation and erosion of mountain chains, origin and evolution of life and causes of extinction. Required field trip and lab exercises permit understanding of how Earth history is interpreted from the geologic rock record.

Prerequisite: E & PS 101 or Env Sc 101; pre- or corequisite: E & PS 105L or Env Sc 102L.

### **E & PS 251: Meteorology. (3)**

Description of weather phenomena, principles of atmospheric motion, weather map analysis and weather prediction.

Also offered as Geog 251.

## Economics

### **Econ 105: Introductory Macroeconomics. (3)**

Economics on a national scale; determination of national income, employment level, inflation, and impact of policies affecting money supply, interest rates and government programs. Current macroeconomic issues and problems.

Prerequisite for most upper division courses.

### **Econ 106: Introductory Microeconomics. (3)**

Exploration of individual consumer behavior, production decisions by the firm, and supply and demand relationships in the marketplace. Examination of the international dimension of production and consumption choices.

Prerequisite for most upper division courses.

### **Econ 203: Society and the Environment. (3)**

Introduction to environmental and natural resource issues of both global and local scale. Investigates basic causes and consequences of environmental problems, including interrelated physical and social science dimensions.

Also offered as CRP 203

### **Econ 212: Personal Investing. (3)**

Investment options available to the individual will be analyzed in terms of economic theories of capital markets. Risk, value, returns and portfolio analysis.

## Electro Mechanical Technology

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

### **Elect T 101LT: DC Circuit Analysis (4)**

Basic elements of DC electrical and electronic circuits, circuit analysis, measurement, and circuit design. Study of circuit network theorems and their applications to design techniques. Study of conductors and insulators.

Prerequisite: Math 120 and Math 106 or equivalent.

### **Elect T 102LT: AC Circuit Analysis. (4)**

AC electrical and electronic components, including inductance, capacitance, resonance, filters, RC and LR time constants. Study of reactance, impedance, complex numbers, AC network analysis, magnetism, and simple power supplies. Introduction to rotating electrical machines, both AC and DC.

Prerequisite: A grade of C or better in Elect T 101LT. Pre- or Corequisite: Math 123.

### **Elect T 105LT: Electro Mechanical Shop Practice. (1)**

Principles of and practice with hand and machine tools used by electromechanical technicians. Includes operation of lathe and milling machines, drilling, welding, sawing, grinding, soldering, brazing, measurements, sheet metal work, benchwork, or other appropriate operations.

### **Elect T 112LT: RF/Power Lab. (1)**

Study of RF energy and its applications. Topics include plasma, physics, RF applications, safety, RF generators, transmission lines and RF interference. Topics also include wireless and antennas.

Prerequisite: Elect T 102LT.

### **Elect T 114LT: Vacuum Systems. (1)**

Study of vacuum technologies and vacuum systems. Topics include gas laws and properties, operation and applications of vacuum pumps, gauges and valves, and systems leak detection. Applies vacuum technologies and vacuum systems.

### **Elect T 137LT: Digital Electronics I (Combinational Logic). (3)**

An introduction to the analysis and synthesis of combinational logic circuits. Boolean algebra, logic gates, Karnaugh maps, MSI and LSI integrated circuits. Interpretation of logic diagrams. Techniques of troubleshooting digital circuits. Prerequisite: Elect T 101LT.

### **Elect T 192LT\*: Topics. (1-3)**

Titles will vary.  
CR/NC.

### **Elect T 193LT\*: Topics. (1-3)**

Titles will vary.

### **Elect T 203LT: Electronic Devices. (4)**

Study of amplifiers, oscillators, integrated circuits, and operational amplifiers. Computer solutions of electronic circuits. Prerequisite: C or better in Elect T 102LT.

### **Elect T 204LT: Electronics Lab. (2)**

Advanced laboratory measurements and design. Measurements using AC and DC meters, ohmmeters, oscilloscopes, signal generators, and pulse generators. Computer circuit stimulation.

Prerequisite: C or better in Elect T 203LT or permission of instructor.

**Elect T 205LT: Mechatronics. (4)**

Mechatronics is a combination of mechanical and electronic components into an integrated system. Includes a study of basic electronic Theory, digital systems, introductory control theory, operational amplifiers, transducers, temperature measurement, motors, and data acquisition.

Prerequisites: Elect T 101LT and Elect T 102LT. (Elect T 203LT recommended)

**Elect T 292LT\*: Topics. (1-3)**

Titles will vary.  
CR/NC.

**Elect T 293LT\*: Topics. (1-3)**

Titles will vary.

**Elect T 296LT: Electronics Technology Cooperative Work Phase 1, 2, or 3. (1-3)**

A work-study program with local industry to give the student practical experience in an industrial environment. Prerequisites: Third or fourth semester standing and permission of the Science/Technology Coordinator.

CR/NC.

**Emergency Medicine****EMS 101: EMT - Basic. (6)**

Fulfills U.S.D.O.T. requirements for medical rescue and ambulance personnel. Prepares providers to recognize medical and traumatic emergencies and intervene and stabilize patients while in transport to advanced care facility. Required prior to EMT - 1 and EMT - P training.

**EMS 107: Wilderness Survival. (3)**

This course is designed to teach the basics of survival in hostile environments. Topics covered include finding food and water and constructing temporary shelters. Two overnight field trips are included in the course.

**EMS 108: Land Navigation. (3)**

Course is designed to teach the basics of land navigation in a wilderness environment. Topics include: navigation theory, map interpretation, use of a compass and use of a GPS. Includes two overnight field trips.

Prerequisite: EMS 107.

**EMS 193T\*: Emergency Medicine Topics. (1-3)**

Titles will vary.

**Engineering**

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

**Civil Engineering****C E 202: Engineering Statics. (3)**

Statics of particles and rigid bodies in two and three dimensions using vector algebra as an analytical tool; centroids; distributed loads; trusses, frames; friction.

Prerequisites: Physcs 160 & Math 163.

**Electrical and Computer Engineering****E CE 203: Circuit Analysis I. (3)**

Basic elements and sources. Energy and power. Ohm's law and Kirchhoff's laws. Resistive networks, node and loop analysis. Network theorems. First-order and second-order circuits. Sinusoidal sources and complex representations: impedance, phasors, and complex power. Three-phase circuits.

Prerequisites: C- or better in Math 163 & C S 151L. Corequisites: Math 316 & Physics 161.

**E CE 213: Circuit Analysis II. (3)**

General transient analysis of electrical circuits. Laplace transform with application to circuit analysis. State-space equations. Fourier series analysis. The network function; convolution; frequency response.

Prerequisites: C- or better in both E CE 203 & Math 316. Corequisite: Math 314.

**E CE 238L: Computer Logic Design. (4)**

Binary number systems. Boolean algebra. Combinational, sequential and register transfer logic. Arithmetic/logic unit. Memories, computer organization. Input-Output. Microprocessors.

Prerequisite: C- or better in C S 151L or equivalent for CS students. (E CE 203 and Math 316 for EE majors).

**Engr-F 130: Introduction to Environmental Science I. (3)**

This course presents an overview of the earth's ecosystems and various threats to the environment resulting from our way of living. Problems of pollution of our ground and surface water, ozone depletion, gaseous and particulate pollution of our atmosphere, and production of hazardous wastes of all types are discussed; groundwork is laid for study of possible alleviation of the problem.

### **Engr-F 131: Introduction to Environmental Science II. (3)**

A continuation of Engr-F 130. The sources of energy, their use and misuse, are studied. Environmental and human health problems associated with air, water and land pollution are discussed in detail.

### **Engr-F 192T\*: Topics. (1-3)**

Titles will vary.  
CR/NC

### **Engr-F 193T\*: Topics. (1-3)**

Titles will vary.

### **Engr-F 201: Fundamentals of Hazardous Materials. (3)**

An introductory study of chemical and radiological materials that are potentially threatening to human safety or health, and procedures to use in working around and with them. Topics include identification of such materials and their particular threat. Practices to follow to avoid occurrences in incidents or to mitigate the damage; and an overview of federal and state standards and regulations.

Prerequisite: Chem 121L.

### **Engr-F 202: Introduction to Hazardous Waste Management. (3)**

Environmental legislation and classification and categorization of hazardous waste are presented. Waste minimization and chemical, physical, and biological treatment methods are discussed, making abundant use of case studies.

### **Engr-F 222: Introduction to Radioactive Materials. (3)**

Elementary concepts of atomic and nuclear structure. Radioactive decay, radiation effects and shielding, radiation detection and measurement techniques, and special problems in waste management presented by radioactive materials are covered.

Prerequisites: Chem 121L and Math 150.

### **Engr-F 293T\*: Topics. (1-3)**

Titles will vary.

## **Mechanical Engineering**

### **M E 160L [101L]: Mechanical Engineering Design I. (3)**

[Introduction to Engineering Methods.] Introduction to engineering graphics, the design process, computer aided design, engineering ethics, design economics and project management.

Prerequisite: eligibility for admission to Math 150.

### **M E 260L [201L]: Mechanical Engineering Design II. (3)**

[Introduction to Engineering Design.] The design process, project management, shop practice CNC and rapid prototyping, design economics and engineering ethics.

Prerequisites: M E 160L, Math 162.

## **Environmental Science**

### **Env Sc 101: The Blue Planet. (3)**

To understand global change and environmental concerns, this course weaves together an understanding of Earth's lithosphere, atmosphere and oceans and how ecosystems are linked to the physical environment. Students are encouraged, but not required, to enroll concurrently in 102L. Credit not awarded for both Env Sc 101 and E & PS 101.

### **Env Sc 102L: The Blue Planet Laboratory (1)**

Introductory environmental earth science laboratory. Includes minerals, rocks, and rock cycle, topographic maps, local geology and groundwater, weather and climate. Credit not awarded for both Env Sc 101 and E & PS 101.

Pre- or corequisite: Env Sc 101.

## **English**

*Courses marked with an \* may be repeated for credit because subject matter varies.*

*A student must have credit for 102 (C, not C-, or higher) before registering in 219 or any course numbered 250 or above, except English 298. Students placing into IS-E 010 or IS-E 100 must also take A&S 198, Introduction to Undergraduate Study, as a pre- or corequisite.*

### **IS-Engl 010T: English Fundamentals. (4)**

Intensive study of basic vocabulary, grammar and mechanics, and paragraph development. Reinforcement of reading, study, and other academic skills.

Pre- or corequisites: IS-Engl 020T.  
ABC/NC or CR/NC.

### **IS-Engl 020T: Reading I. (1)**

Reading for accuracy and understanding in short expository passages. Vocabulary, sequence and discussion skills are emphasized.

ABC/NC or CR/NC.

**IS-Engl 021T: Reading II. (1)**

Reading for analysis in short expository/academic passages. Vocabulary, outlining, note-taking, distinguishing among fact, assertion, evidence, and implication are emphasized.

ABC/NC or CR/NC.

**IS-Engl 100: Essay Writing. [Writing Standard English]. (4)**

Focuses on writing effective essays through a process of brainstorming, drafting, revising and editing; and through receiving peer feedback. Provides practice in developing and organizing ideas into essays. Presents grammar, usage and punctuation in the context of the students' own writing.

Prerequisite: A grade of C (not C-) or better in IS-Engl 010T or placement; Pre-or Corequisite: IS-Engl 021T

ABC/NC or CR/NC

**Engl 101: Composition I: Exposition. (3)**

Expository writing and reading. Concentrates on organizing and supporting ideas in writing.

Prerequisite: A grade of C (not C-) or better in IS-Engl 100 or appropriate placement score. (See Freshman English at UNM: A Student Handbook or UNM-LA's Composition Handbook.)

**Engl 102: Composition II: Analysis and Argument. (3)**

Practice writing analytic and argumentative essays based on expository and literary readings. Some research required. Prerequisite: C or better in 101 or appropriate placement score. (See Freshman English at UNM: A Student Handbook or UNM-LA's Composition Handbook.)

**Engl 107: Greek Mythology. (3)**

Introduction to mythology: primary readings in stories about the gods and heroes, usually including Homer, Hesiod, Homeric Hymns and Tragedies. All texts will be in English.

Also offered as Clscs 107, Greek 107

**Engl 119T: Technical Communications (3)**

Introductory study of written and verbal communications used in the technical professions for students in technology and degree programs.

Prerequisite: Engl 101

**Engl 150: The Study of Literature. (3)**

An introduction to the study and appreciation of literature for non-English majors. Shows how understanding writer's techniques increases the enjoyment of their works; relates these techniques to literary conventions; teaches recognition, analysis, and discussion of important themes.

**Engl 192T\*: Topics. (1-3)**

Titles will vary.

CR/NC.

**Engl 193T\*: Topics. (1-3)**

Titles will vary

**Engl 200L: Humanities Laboratory I. (1)**

Presenting major works of literature on film.

**Engl 206\*: Topics in Popular Literature. (3 to a maximum of 6)**

Reading and analysis of popular literary forms such as the spy novel, the detective novel, science fiction, best sellers, and fantasy.

**Engl 211\*: Topics in Literature. (3 to a maximum of 6)**

Surveys a specific type or area of literature, e.g., the American novel, the satiric novel, southern fiction, the western novel, American poetry, feminist literature, Chicano literature, Native American literature, African-American literature, Medieval and Viking literature. Primarily for non-majors.

Prerequisite: Engl 150 or permission of the instructor.

**Engl 217T: Editing. (3)**

This course focuses on using editing business/technical documents for organization, reader-centered style, and graphics and visual design of graphics. Also covered is fundamentals document project management and production and basic proofreading marks and skills. Editing will be learned primarily by editing.

**Engl 219: Technical and Professional Writing. (3)**

Practice in the writing and editing of workplace documents, including correspondence, reports and proposals.

Prerequisite: Engl 102 or its equivalent.

**Engl 220: Expository Writing. (3 to a maximum of 6)**

An intermediate course with emphasis on rhetorical types, structure and style.

Prerequisite: Engl 102 or its equivalent.

**Engl 221: Introduction to Creative Writing: Prose Fiction. (3)**

A beginning course in fiction, emphasizing process over product. Introduces issues of craft, workshop vocabulary, strategies for revision and the habit of reading as a writer. A \$20.00 workshop fee is required.

Prerequisite: Engl 101 or its equivalent.

**Engl 222: Introduction to Creative Writing: Poetry. (3)**

A beginning course in poetry, emphasizing process over product. Introduces issues of craft, workshop vocabulary, strategies for revision and the habit of reading as a writer. A \$20.00 workshop fee is required.

Prerequisite: Engl 101 or its equivalent.

**Engl 223: Introduction to Creative Writing: Creative Nonfiction. (3 to a maximum of 6)**

A beginning course in nonfiction, emphasizing process over product. The course introduces issues of craft, workshop vocabulary, strategies for revision and the habit of reading as a writer. A \$20.00 workshop fee is required.

Prerequisite: Engl 101 or its equivalent.

**Engl 240: Traditional Grammar. (3)**

A study of the basic analysis of English sentences offered by traditional grammar. Presents terminology and methods for identifying parts of speech, functional units of sentences, and basic sentence patterns.

**Engl 245T: Grant and Proposal Writing. (3)**

This course focuses on the rhetoric strategies, organization, and development of proposals and grants. Topics include researching for grant/proposal opportunities, following proposal guidelines, using effective visuals, and writing for conciseness, clarity and persuasive appeal.

**Engl 246T: Public Relations Writing. (3)**

This course focuses on fundamental public relations/marketing skills used to promote business and non-profit organizations. Skills covered will include advanced audience analysis, persuasive techniques, media relations, visual design, and research methods. Genres to be covered include newsletters, press kits, annual reports, radio scripts, and presentations.

**Engl 264: American Indian and Indigenous Literatures. (3)**

A general survey of American Indian and Indigenous literatures covering the history and diversity of writing and storytelling that has come out of American Indian and Indigenous communities, including oral narratives, autobiography, fiction, poetry and drama.

**Engl 265: Introduction to Chicano/a Literature. (3)**

An examination of Chicano/a novels, short stories, essays, poetry and drama, with emphasis on major themes such as history, culture, identity, language and region. Covers the 19th century to the present.

**Engl 270: An Introduction to Modern Literature. (3)**

An introduction to American and European Literature of the 20th century, concentrating on such major authors as Eliot, Faulkner, Fitzgerald, Yeats, Joyce, Ibsen, Camus and Chekhov.

**Engl 287: Introduction to Short Story. (3)**

The development of the modern short story from its beginnings in the nineteenth century to the present. Technique and theme will be studied in representative stories by American and European writers.

**Engl 290: Introduction to Professional Writing (3).**

Introductory course in the professional writing concentration. Study of technical writing, public information and public relations writing, and freelance nonfiction writing.

Prerequisite: Engl 102 or its equivalent.

**Engl 292: World Literatures: Ancient World through the 16th Century. (3)**

Survey of key texts in world literature from the ancient world through the 16th century.

**Engl 293T\*: Topics. (1 - 3 to a maximum of 6)**

Titles will vary.

**Engl 293: World Literature: 17th Century through the present. (3)**

Survey of key texts in world literature from the 17th century through the present.

**Engl 294: Survey of Earlier English Literature. (3)**

From Old English to 1798. A study of the principal literary and intellectual movements, and selected writers and literary works from Beowulf through Johnson.

**Engl 295: Survey of Later English Literature. (3)**

From 1798 to present. Study of principal literary and intellectual movements, and selected writers and literary works.

**Engl 296: Earlier American Literature. (3)**

A general survey of American Literature to the mid 19th century.

**Engl 297: Later American Literature. (3).**

A general survey of American Literature from the mid 19th century to the present.



**Engl 298\*: Workshop in Literature or Writing.**  
**(1 - 3 to a maximum of 6)**

Various topics in literature, language, and writing.

**Fine Arts**

*Courses marked with an \* may be repeated for credit because subject matter varies.*

**FA 193T\*: Topics. (1-3)**

Titles will vary.

**FA 229\*: Topics (1-3)\***

Interdisciplinary topics in the arts.

**Foreign Languages and Literatures**

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

**French**

**French 101: Elementary French. (3)**

Beginning French for students with no previous exposure to French. Development of all four language skills, with emphasis on listening and speaking.

**French 102: Elementary French. (3)**

Beginning French for students who have completed French 101 or equivalent. Continued development of all four skills with emphasis on listening and speaking.

**French 103: Elementary French Conversation.**

**(1)**

Supplementary course to French 101-102 for students interested in additional practice in phonetics.

**Russian**

**Russ 101: Elementary Russian. (3)**

Elementary Russian for students with no previous exposure to the language. Development of all four-language skills: reading, speaking, writing and listening comprehension.

Can be taken in conjunction with Russian 103.

**Russ 102: Elementary Russian II. (3)**

Elementary Russian for students who have completed Russian 101 or equivalent. Continued development of all four skills.

Can be taken in conjunction with Russ 104.

**Russ 103-104: Beginnings: Speaking Russian.**  
**(1,1)**

Practice in basic conversation and training in acquiring a good accent. The courses are supplemental to Russ 101-102 and stress the patterns and forms introduced in the main courses.

**Russ 201-202: Intermediate Russian. (3, 3)**

Prerequisites: Russ 101-102 or the equivalent.

**Russ 203: Communicating in Russian I. (1-3)**

Developing survival skills in using Russian on a practical level. Requesting and providing essential information and simple conversation. Required of all majors and minors.

Prerequisite: Russ 102 or higher.

Corequisite: Russ 201 or higher.

**Russ 204: Communicating in Russian II. (1-3)**

Developing survival skills in using Russian on a practical level. Requesting and providing essential information and simple conversation. Required of all majors and minors.

Prerequisite: Russ 102 or higher.

Corequisite: Russ 201 or higher.

**Signed Language**

**Sign 201: Introduction to Signed Language. (3)**

Overview of signed language studies and related issues. Introduction to American Sign Language (ASL); signed communication systems most frequently used by deaf and hard of hearing individuals, the study of fingerspelling.

**Spanish**

**Span 101: Elementary Spanish. (3)**

Beginning Spanish for students with no previous exposure to Spanish. Development of all four language skills, with emphasis on listening and speaking.

**Span 102: Elementary Spanish. (3)**

Beginning Spanish for students who have completed Span 101 or equivalent. Continued development of four skills with emphasis on listening and speaking.

**Span 103-104: Elementary Spanish**

**Conversation. (1, 1)**

Supplementary courses to Span 101-102 for students interested in additional practice in speaking.

CR/NC.

**Span 120: Workshop in Conversational Spanish. (1- 3 to a maximum of 3)**

Conversational Spanish in the freshman and sophomore levels.

May not be used to satisfy language requirements.

### **Span 201: Intermediate Spanish. (3)**

Intermediate Spanish for students who have completed Span 102 or equivalent. Review of grammar and further development of all four skills.

### **Span 202: Intermediate Spanish. (3)**

Intermediate Spanish for students who have completed Span 201 or equivalent. Continued development of all four skills with emphasis on reading.

### **Span 203: Spanish Conversation. (3)**

For students who have completed or are currently enrolled in Span 201, Span 202, or Span 276. Small classes designed to increase skills in speaking Spanish. Not for native speakers.

### **Span 293T\*: Topics. (1-3)**

Titles will vary.

## **French**

### **French 101: Elementary French. (3)**

Beginning French for students with no previous exposure to French. Development of all four language skills, with emphasis on listening and speaking.

### **French 102: Elementary French. (3)**

Beginning French for students who have completed French 101 or equivalent. Continued development of all four skills with emphasis on listening and speaking.

### **French 103: Elementary French Conversation. (1)**

Supplementary course to French 101-102 for students interested in additional practice in phonetics.

Courses marked with an \* may be repeated for credit because content varies.

## **General Honors**

### **Gn Hon 121-122: Freshman General Honors**

#### **Core Seminar. (3, 3)**

Surveys of major ideas basic to the intellectual, historic, and artistic traditions of Western Culture. One core seminar required for graduation.

Courses marked with an \* may be repeated for credit because content varies.

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

## **General Studies**

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

### **Gen St 192T\*: Topics. (1-3)**

Titles will vary.  
CR/NC

### **Gen St 193T\*: Topics. (1-3)**

Titles will vary.

### **Gen St 292T\*: Topics. (1-3)**

Titles will vary.  
CR/NC

### **Gen St 293T\*: Topics. (1-4)**

Titles will vary.

## **Geography**

### **Geog 101: Physical Geography. (3)**

World geography; physical elements. Use of maps and globes for a systematic analysis of world climates, vegetation, soils, and landforms, their distribution, interrelation, and significance to humans.

### **Geog 102: Human Geography. (3)**

World Geography; human elements. A systematic analysis of world population, demographic factors, ethnic groups, predominant economies, and political units, their distribution, interrelation, and interaction with the physical earth.

### **Geog 105L: Physical Geography Laboratory. (1)**

Exercises designed to complement Geog 101. Applied problems in the spatial processes of the physical environment. Map construction and reading, weather and climatic analysis, classification of vegetative and soil associations, landform distribution analysis.

Corequisite: Geog 101. 2 hrs. lab.

### **Geog 195: Survey of Environmental Issues. (3)**

Survey of environmental issues related to the degradation of land, air, and water resources.

### **Geog 251: Meteorology. (3)**

Description of weather phenomena, principles of atmospheric motion, weather map analysis and weather prediction.

Also offered as E & PS 251.

## Greek

### **Greek 107: Greek Mythology. (3)**

Introduction to mythology: primary readings in stories about the gods and heroes, usually including Homer, Hesiod, Homeric Hymns and Tragedies. All texts will be in English.

Also offered as Clscs 107, Engl 107

## History

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

### **Hist 101: Western Civilization. (3)**

Ancient times to 1648.

### **Hist 102: Western Civilization. (3)**

1648 to present.

### **Hist 161: History of the United States to 1877.**

#### **[History of the United States]. (3)**

Survey of the economic, political, intellectual, and social development of the United States, including the place of the U.S. in world affairs from 1607 to 1877.

### **Hist 162: History of the United States Since 1877. [History of the United States]. (3)**

Survey of the economic, political, intellectual, and social development of the United States, including the place of the U.S. in world affairs from 1877 to the present.

### **Hist 204: Greek Civilization. (3)**

An interdisciplinary introduction to the ancient world as the foundation of modern civilization. Lectures on classical art, history, literature, and philosophy.

Also offered as, Art Hi 204, Clscs 204, Phil 204

### **Hist 205: Roman Civilization. (3)**

An interdisciplinary introduction to ancient Rome. Lectures on Roman literature, history, art, and philosophy.

Also offered as, Art Hi 205, Clscs 205, Phil 205

### **Hist 220: Studies in History. (1-3)**

Will vary from instructor to instructor but will offer a review of particular historical issues designed for the nonspecialist. For content of particular courses, see Schedule of Classes and contact Department. Course may be repeated without limit provided the topics vary.

### **Hist 260: History of New Mexico. (3)**

Introduction to New Mexico history from earliest human settlement to the present day.

### **Hist 270: The American West: A Survey. (3)**

An introduction to the major periods and themes of frontier and western history. From Indian and Spanish experiences through the frontier era and on to the contemporary West. The emphasis will be on a broad sweep of the subject.

### **Hist 293T\*: Topics. (1-3)**

Titles will vary.

## Hospitality Administration/Management

### **H AD M 101T: Introduction to Hotel/Casino Management. (3)**

This course is designed to introduce the student to customer service in a hotel/casino environment. Customer service issues and practices will be studied from the perspective of several departments including guest services in the hotel industry, table games, slots, security, and marketing among others. The manager's roles, setting an example, and helping the organization become customer oriented are areas of study.

### **H AD M 102T: Survey of Hotel/Gaming Laws and Regulations. (3)**

This course will review the laws and regulations relating to the gaming industry in the United States and New Mexico in particular. Specific emphasis will be on the history and development of gaming laws and regulations. Additional compliance requirements of gaming licensees will be discussed. Issues related to the social and ethical aspects of gaming and relevant laws will be covered.

### **H AD M 106T: Survey of Casino Games. (3)**

This course is designed as an introductory course for those seeking a management position in a casino. Students will be introduced to the fundamentals of dealing procedures for the games of Poker, Roulette, Baccarat, and Craps as well as the casino dealer's duties and responsibilities. The Rules of the Games from multiple jurisdictions and gaming terminology will also be discussed.

### **H AD M 108T: Casino Security and Surveillance. (3)**

This course is designed to introduce the student to the physical security of a casino. Guest safety and security, administrative and operational security, emergency and general security procedures. Security personnel and their functions will be discussed along with procedures for slot machine fills and jackpots, table games fills and credits, as well as, escorting employees with casino money and escorting customers. General policies regarding underage patrons, child abandonment, lost and found, and intoxicated persons will be reviewed. Prerequisite: H AD M 102.

### **H AD M 200T: Supervision of Casino Games (3)**

This course will introduce the student to various cheating scams and techniques and protection tips. The focus will be on supervision from a table games perspective. The surveillance departments and the gaming supervisors roles will be studied. A general overview of card, roulette, and dice games will be discussed and what steps a casino can take to prevent loss of revenue. Prerequisite: H AD M 106.

### **H AD M 202T: Slots Management. (3)**

This course will focus on the operation and management of slot machines. Gaming mathematics and financial controls will be discussed. Internal, external, and partnership cheating will be examined.

### **H AD M 204T: Casino Cage Operations. (3)**

This course will provide an overview of the relationship of the cage operation and the various departments within a casino environment and how they are interrelated to ensure the overall success of a casino property. Included in this course will be bookkeeping, accounting of funds, security, and change operations. Prerequisite: H AD M 101.

### **H AD M 206T: Labor Relations. (3)**

Background and practice of Labor Relations from dealing with employees and their concerns, unionization, collective bargaining, grievance administration, mediation, and arbitration. Theory and case analysis emphasizing employment problems, and management prerogatives.

### **H AD M 296LT: Co-operative practicum. (1-3)**

This course is designed for managers to develop skills and confidence in effective leadership. Students will learn skills and techniques in team coaching, interpersonal communication skills, motivation, and conflict resolution as well as administrative skills and organizational strategies by working under the mentorship of an experienced mentor. Projects will be undertaken to analyze and improve casino/hotel operations.

## **Information Technology**

### **IT 109LT: Information Technology Cooperative Education. (1-3)**

The student works in an IT-related job for one semester and gains on-the-job insight into a technology field. Student must write projected goals for the semester's work, midterm summaries of work completed thus far, and an end of the term report summarizing work completed during the semester. Students must also get a supervisor evaluation.

### **IT 120LT: Networking Core Concepts. (3)**

This course serves as a general introduction in current networking technology for local area networks (LANs), wide-area networks (WANs), and the Internet.

Prerequisites: C S 101LT and CT 102LT.

### **IT 121LT: Windows Client Operating Systems. (3)**

This class covers the skills necessary to implement, administer, and troubleshoot information systems that incorporate Windows client operating systems. (Was Windows 2000 Professional)

Prerequisite: IT 120LT.

### **IT 122LT: Windows Server Operating Systems. (3)**

This class covers the skills necessary to implement, administer, and troubleshoot information systems that incorporate Windows server operating systems. (Was Windows 2000 Server)

Prerequisite: IT 120LT.

### **IT 131LT: Introduction to Hardware Installation. (3)**

This class covers the skills necessary to install, upgrade, diagnosis, and repair PC hardware. (A+ Hardware)

Prerequisite: CT 102LT.

### **IT 132LT: Microcomputer Operating Systems. (3)**

This class covers the skills necessary to install, upgrade, diagnose, and repair PC-based operating systems and common software. It focuses on the functionality of PC DOS, Windows and NT operating systems. (A+ Software)

Prerequisites: CT 102LT and IT 131LT.

**IT 140LT: Help Desk I. (3)**

The student is enrolled in a 3-credit course which has two parts: a normal weekly lecture plus a mandatory service time manning the Help Desk Service Phone. In this course, students are taught how to assist other students, faculty, and staff with answering computer-related questions. Skills for running the Help Desk are taught, along with technical skills related to commonly asked questions. Working at the Help Desk phone is mandatory for a fixed number of hours per week. Students will be required to log all questions with appropriate answers to those questions.

Prerequisites: CS 101LT, CT 102LT, CT 140LT, CT 201LT, CT 202LT, IT 131LT.

**IT 145LT: Web Design Fundamentals: HTML and Style Sheets. (3)**

Hands-on course in designing and developing World Wide Web pages using HTML (HyperText Markup Language) and CSS (Cascading Style Sheets). The course will cover HTML tags for text, images, links, lists, simple layouts, complex layouts, tables, frames, style, internal style sheets, and external style sheets. Basic issues in using graphics on the Web will also be covered.

Prerequisites: Basic computer literacy

**IT 147LT: Web Usability. (3)**

Course in applying the principles of usability to the design, development, and improvement of World Wide Web pages. The course will include an introduction to usability and will focus on the principles of usability applied to page design, content design, site design, Intranet design, design for users with disabilities, and design for international users. Throughout the course, the principles of usability will be supported with facts and data obtained from real users. Prerequisite: IT 145 or CT 165 or some knowledge of Web Design.

**IT 149LT: Web Design: Introduction to JavaScript. (3)**

Hands-on course in designing and developing World Wide Web pages that include JavaScript. The course will cover scripts for detecting characteristics of the user's computer, adding dynamic elements to Web pages, such as image rollovers and cycling banners; controlling characteristics of the browser window and the frames that appear in the browser window; adding dynamic events such as date, time, countdowns, and time-specific messages; adding cookies. The course will also include an introduction to DHTML (a combination of HTML, Cascading Style Sheets, and JavaScript) and tips on how to debug JavaScript.

Prerequisite: IT 145LT.

**IT 150LT: Web Design: Introduction to DHTML. (3)**

Hands-on course in designing and developing dynamic World Wide Web sites using DHTML (Dynamic HTML). Students will learn how to use DHTML - which is a combination of HTML, JavaScript, and Cascading Style Sheets, or CSS-to control the display of content on Web pages and to allow the content to change in response to user interactions. Prerequisite: IT 145LT.

**IT 165LT: Introduction to Web Authoring. (3)**

This course is an introduction to making and designing web pages using HTML generating software. Students learn how to make well-designed web pages from simple to the complex. Site creation with text, graphics, tables, Cascading Style Sheets, and simple animation effects are included. Design principles as they apply to the World Wide Web are also presented. Cross-listed as CT 165LT. No knowledge of HTML is required.

**IT 210LT: Introduction to Geographic Information Systems (GIS). (3)**

Introductory course in geographic information systems covering a general overview of the uses of GIS, hardware and software requirements, and manipulation of data sets. Students get hands-on experience with map production and GIS application development.

Prerequisite: CT 102LT or permission of instructor.

**IT 225LT: TCP/IP. (3)**

This class covers the skills necessary to implement, administer, and troubleshoot information systems that incorporate TCP/IP. (Was Microsoft TCP/IP)

Prerequisite: IT 120LT.

**IT 226LT: Web Servers. (3)**

This class covers the skills necessary to implement, administer, and troubleshoot information systems that incorporate Apache and Microsoft IIS. (Was Microsoft Internet Information Server)

Prerequisite: IT 120LT.

**IT 229LT: Networking Infrastructures. (3)**

Networking Infrastructure covers advanced topics in configuring and supporting a Windows 2000-based network. Topics to be covered include enhanced features of W2K network management tools, security issues, DNS/WINS addressing schemes, TCP/IP addressing, domain structures/organizational units, and the role of Active Directory in a W2K based network.

Prerequisite: IT 120LT.

**IT 230LT: UNIX System Administration I. (3)**

An introduction to Unix system administration, with special attention to Internet related issues. Topics covered include UNIX organization, tools, and system configuration.

Prerequisites: CS 101LT or CS 102LT, CS 103LT, and CS 151L.

**IT 231LT: UNIX System Administration II. (3)**

Advanced topics in UNIX system administration, with a more in-depth look at UNIX tools and system configuration, with focus on network service installation, as well as computer and network security. Students will be provided with knowledge and tools necessary to administer UNIX systems in a heterogeneous Internet environment.

Prerequisites: IT 120LT and IT 230LT.

**IT 235LT: Windows Systems Administration. (3)**

Topics in Windows system administration, this is an introduction to system administration of Windows Server with a focus on security and reliability. Topics covered will include Windows Server system configuration, available tools, file system and registry structure, auditing and automation of tasks.

Prerequisite: IT 120LT.

**IT 240LT: Help Desk II. (3)**

A continuation of Help Desk I. In this course, students assist Help Desk I students in providing assistance to users over the dedicated Help Desk Service Phone. Students are required to update the Help Desk manual.

Prerequisite: IT 140LT, CS 151L or CS 170T.

**IT 241LT: Web Design: Introduction to XML. (3)**

Hands-on course in designing and developing dynamic World Wide Web sites using XML (Extensible Markup Language). Students will learn how to use XML, which enables designers to represent the content - or semantic characteristics - of information on Web pages, in conjunction with HTML, which enables designers to represent the appearance - or formatting characteristics - of information on Web pages. They will learn how to use XML to create Web sites that enable information to be shared among servers, clients, and databases.

Prerequisites: IT 145LT and CS 160T.

**IT 242LT: Web Design: Introduction to Forms. (3)**

Hands-on course in designing and developing interactive World Wide Web sites that include forms and allows users to perform transactions. Students will learn how to create forms using HTML, how to write scripts for forms using JavaScripts, and how to write CGI (Common Gateway Interface) scripts in Perl. These techniques will enable students to create transactional Web sites that allow users to enter information and

enable Web servers to get, process, and return the information.

Prerequisite: IT 145LT.

**IT 244LT: Information Architectures for Complex WebSites. (3)**

Course in information architectures for large-scale informational or transactional Web sites. Students will learn how Web architects organize information; design navigation systems, design labeling systems, design search systems, create Web site blueprints, and apply those blueprints to the development of Web sites. Students will create information architectures for their own Web sites.

Prerequisite: IT 145LT, Recommended IT 149LT.

**IT 246LT: Web Design: Creating a Portfolio. (3)**

Course in creating portfolios of Web designs. Students will design and develop examples of informational and/or transactional Web site, using HTML, CSS, JavaScript, DHTML, XML, Perl and/or other Web Technologies.

Prerequisites: IT 145LT, IT 149LT and IT 242LT.

**IT 260LT: Network Security Practices. (3)**

The primary goal of the course is a general introduction to "defense-in-depth" perimeter security on both Windows and UNIX/Linux networks and an in-depth study of the step-by-step approach used in computer/network attacks.

Prerequisite: IT 120LT.

**IT 293T: Topics. (1-3)**

Titles will vary.

## Introductory Studies

*\* Introductory Studies courses do not count toward UNM-Los Alamos associate degrees or certificates.*

**IS-ENGLISH**

A student who wishes to enroll in a course requiring a prerequisite must earn a grade of C (not C-) or better in the prerequisite course.

**IS-Engl 010T: English Fundamentals. (4)**

Intensive study of basic vocabulary, grammar and mechanics, and paragraph development. Reinforcement of reading, study, and other academic skills.

Pre- or corequisite: IS-Engl 020T.

ABC/NC or CR/NC.

**IS-Engl 020T: Reading I. (1)**

Reading for accuracy and understanding in short expository passages. Vocabulary, sequence and discussion skills are emphasized.

ABC/NC or CR/NC.

**IS-Engl 021T: Reading II. (1)**

Reading for analysis in short expository/academic passages. Vocabulary, outlining, note-taking, distinguishing among fact, assertion, evidence, and implication are emphasized.

ABC/NC or CR/NC.

**IS-Engl 100: Essay Writing. [Writing Standard English]. (4)**

Focuses on writing effective essays through a process of brainstorming, drafting, revising and editing; and through receiving peer feedback. Provides practice in developing and organizing ideas into essays. Presents grammar, usage and punctuation in the context of the student's own writing. Satisfactory completion of Engl 100 meets prerequisites for Engl 101.

Prerequisite: A grade of C (not C-) or better in IS-Engl 010T or placement; pre- or corequisite: IS-Engl 021T.

ABC/CR/NC

**IS- MATHEMATICS**

A student who wishes to enroll in a course requiring a prerequisite must earn a grade of C (not C-) or better in the prerequisite course.

**IS- Math 010T: Pre-Algebra. (4)**

This course prepares students for algebra. Topics include operations on fractions and decimals; ratios, proportions and percents; signed number operations; measurement; elements of geometry; elements of algebra and word problems.

ABC/CR/NC

**IS- Math 100: Algebraic Problem Solving. (4)**

Arithmetic and introductory algebra for students who are not prepared to begin at the intermediate algebra level. Prerequisites: Fulfillment of placement requirements or a C (not C-) or better in Math 010T.

ABC/CR/NC

**IS-NATURAL SCIENCE****IS-NS 100T: Natural Science. (4)**

A course dealing with basic science, including biology, chemistry and physics, that includes an introduction to reading comprehension, test taking, reasoning, and laboratory skills.

ABC/CR/NC

**Linguistics****Ling 101: Introduction to the Study of Language. (3)**

Broad overview of the nature of language: language structure, biology of language, language learning, language and thought, bilingualism, social and regional variation, and educational implications. Intended to fulfill breadth

requirements in any college.

Also offered as Anth 110.

Ling 101 and Anth 110 may not both be counted for credit.

**Ling 295: Language: Current Issues. (3 to maximum of 12)**

Special topics motivated by expertise of instructor and interest of students. Topics such as language and gender, language and politics, animal communication, language and aging and languages of the world. May be repeated for credit as topic varies.

**Sign 201: Introduction to Signed Language. (3)**

Overview of signed language studies and related issues. Introduction to American Sign Language (ASL); signed communication systems most frequently used by deaf and hard of hearing individuals, the study of fingerspelling.

**Management**

*The courses marked with a + are UNM-Los Alamos courses. These do not count toward a BBA degree at UNM, but may be transferred to UNM as elective credit.*

**Mgt 101: Fundamentals of Accounting I. (3)**

The development of the accounting cycle, special journals and financial statements.

Credit not applicable toward BBA degree

**Mgt 101L: Fundamentals of Accounting I Lab. (1)**

To provide additional problem solving necessary for the students to master accounting basics.

Corequisite: Mgt 101.

**Mgt 102: Fundamentals of Accounting II. (3)**

Continuation of Mgt 101, including corporation and manufacturing accounting and decision making.

Credit not applicable toward BBA degree

Prerequisite: Mgt 101

**Mgt 102L: Fundamentals of Accounting II Lab. (1)**

To provide additional problem solving necessary for students to master accounting basics.

Co-requisite: Mgt 102

**Mgt 113: Management. (3)**

Modern concepts of organizations and their management. An overview of functional activities within business and other organizations.

### **Mgt 202: Principles of Financial Accounting. (3)**

An examination of the conceptual framework of accounting and the functions of accounting in a business-oriented society. Topics include valuation theory and its applications to assets and liabilities, concepts of business income, funds-flow analysis, and problems of financial reporting.

Prerequisites: two semesters of college-level mathematics and one semester of economics with a grade of C or better in each course.

### **Mgt 204: Human Relations. (3)**

Human Relations in the work environment will be studied. Topics: principles of office management, interviewing, hiring, supervising, evaluating performance, organizational skills, stress management.

### **Mgt 222: Introduction to Marketing. (3)**

A complete overview of the system for assessing customer needs, allocation of scarce resources to fulfill those needs, transmittal of market related information, completion of exchange processes, and profit maximization in free markets. Emphasis on interdisciplinary tools for management, decision-making and developing marketing strategies in domestic and international market applications.

Credit not applicable toward BBA degree.

### **+ Mgt 233: Principles of Marketing Management. (3)**

Study of the elements of marketing systems in private and public organizations. Planning, organizing, evaluating and appraising marketing programs; the impact of economic, social and political factors.

Prerequisite: Mgt 113 or permission of the instructor.

### **+ Mgt 234: Personnel Management. (3)**

A course designed for supervisors, managers, and individuals interested in exploring basic concepts of human resource management and how these concepts affect the skill and art of leadership. The emphasis will be on concepts of management and environmental changes challenging both employers and employees in today's society.

### **Mgt 290: Introduction to Business Statistics. (3)**

An overview of the use of statistics in business, descriptive statistics and numerical characteristics of data, introduction to probability, statistical inference including t-tests and regression, confidence intervals; application to business problems will be emphasized.

Also offered as Stat 245.

Prerequisite: A grade of C (not C-) or better in Math 180.

## **Materials Science Technology**

### **MST 101LT: Introduction to Materials Science Technology I. (4)**

The course will introduce fundamental concepts in materials science and engineering, as applied to engineering disciplines. Students will learn about the structure of metals, ceramics, polymers, and composite materials and how engineering properties are derived from structure. Students will also learn how processing can be used to change the structure and therefore properties and uses of materials.

Prerequisites: high school diploma or GED; Math 121 or higher; Engl 101 or higher; Chem 111L or higher.

### **MST 102LT: Introduction to Materials Science Technology II. (4)**

The course will build upon the fundamental concepts in materials science and engineering, as applied to engineering disciplines, and as introduced in Introduction to Materials Science I. Students will learn about the structure of ceramics, polymers, and composite materials and how corrosion resistance and other properties are derived from structure. Students will also learn about materials selection and design considerations, and the economic, environmental, and societal issues in materials science and engineering.

Prerequisite: MST 101LT

### **MST 104T: Introduction to Microscopy and Microstructures. (3)**

Microstructural characterization is the study of the interrelationship between structural characteristics and the physical and mechanical properties of metals, alloys and nonmetallic materials such as ceramics, polymers and composites. This course provides an overview of various techniques and their underlying principles. These include: optical microscopy; electron microscopy and related analytical techniques; X-ray, electron and neutron diffraction; and surface analysis. The students will also gain an understanding of the nature and origins of microstructural features, preparation techniques and differentiation between the true microstructure and preparation artifacts.

Prerequisites: Math 123, MST 101LT, MST 102LT, or equivalent.



### **MST 109T: Materials Processing and Manufacturing. (3)**

Processing of materials plays a large role in determining their properties and performance. The objective of this course is to review processing and manufacturing techniques for metals, ceramics, polymers and composite materials. Topics to be covered include metal casting, processing of polymers and polymer matrix composites, powder processing of metals and ceramics, metal forming, machining and grinding, heat treatment of metals, joining processes, processing of integrated circuits, and electronics assembly and packaging.

Prerequisites: MST 102LT

### **MST 110T: Introduction to Mechanical Behavior of Materials. (3)**

Origin of mechanical properties of metals and polymers and the concepts are used to explain how various methods are used to strengthen materials. Property measurement and data interpretation. This course is designed to introduce the student to the basic mechanical behavior of metals and polymers. The origin of mechanical properties in engineering materials is discussed from a fundamental viewpoint and the concepts are used to explain how various methods used to strengthen materials actually work. Properties such as tensile strength, ductility, elastic modulus, hardness, fatigue life, and toughness are covered in this seminar.

Prerequisite: Math 123

### **MST 112T: Introduction to Phase Transformations. (3)**

Phase transformations strongly influence microstructural development. The objective of this course is to introduce students to important concepts associated with phase transformations. The course will review topics of thermodynamics and kinetics of phase transformations as well as diffusion and nucleation and growth. The course will also introduce the topics of precipitation, martensitic transformations and ordering reactions.

Prerequisite: MST 102LT. Corequisite: MST 104T.

### **MST 296T: Materials Science Technology Cooperative Work Phase. (1)**

CR/NC

## **Mathematics and Statistics**

*Note: A student who wishes to enroll in a course requiring a prerequisite must earn a grade of C (not C-) or better in the prerequisite course.*

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

### **Restrictions**

1. Credit not allowed for both Math 162 and Math 180.
2. Credit not allowed for both Math 163 and Math 181.
3. Students who have credit for any courses numbered Math 121 and above may not take IS-M 100, or Math 120 for credit.
4. Students who have credit for any courses numbered Math 162 and above may not take Math 120, 121, 123, or 150 for credit.
5. A student normally may not take an examination to validate credit in mathematics courses.
6. Mathematics or Statistics course work dating back more than five years cannot automatically be counted as fulfillment of a prerequisite. Students with older course work who feel they have retained subject knowledge are encouraged to take the COMPASS placement tests offered through Student Services.

### **IS-Math 010T: Pre-Algebra. (4)**

This course prepares students for algebra. Topics include operations on fractions and decimals; ratios, proportions and percents; signed number operations; measurement; elements of geometry; elements of algebra and word problems.

ABC/CR/NC

Does not count toward UNM-Los Alamos associate degrees.

### **IS-Math 100: Algebraic Problem Solving. (4)**

Arithmetic and introductory algebra for students who are not prepared to begin at the intermediate algebra level.

Prerequisites: Fulfillment of placement requirements or a C (not C-) or better in IS-Math 010T

ABC/CR/NC

Does not count toward UNM-Los Alamos Associate degrees.

### **Math 106: Problems in Intermediate Algebra. (1)**

Study session for Math 120 with an emphasis on problem solving.

Corequisite: Math 120.

Offered on a CR/NC basis only.

### **Math 107: Problems in College Algebra. (1)**

Study session for Math 121 with an emphasis on problem solving.

Corequisite: Math 121.

Offered on a CR/NC basis only.

**Math 109T: Graphing Calculator Workshop. (1)**

Explores calculator skills needed for algebra, trigonometry, pre-calculus, calculus, and/or science courses. Topics include logic, calculations, scientific notation, tables, scatter plots and regression equations, programs, polar graphing, matrices, use of instruction manual.

Offered on a CR/NC basis only.

**Math 110: Problems in Elements of Calculus I.****(1)**

Study session for Math 180 with an emphasis on problem solving.

Corequisite: Math 180.

Offered on a CR/NC basis only.

**Math 111: Mathematics for Elementary and Middle School Teachers I. (3)**

The intuitive and logical background of arithmetic; properties of sets; algorithms of arithmetic in base ten and other bases; properties of the integers, mathematical terminology; elements of number theory; problem solving.

Prerequisite: Fulfillment of placement requirements or a grade of C (not C-) or better in IS-Math 100.

**Math 112: Mathematics for Elementary and Middle School Teachers II. (3)**

The properties of the rational number system; extension to the irrationals; decimal and fractional representation of real numbers; geometry.

Prerequisite: A grade of C (not C-) or better in Math 111.

**Math 118T: Algebra (Stretch 120 Part I). (4)**

This course covers approximately the first half of Math 120. Topics covered are properties of real numbers; linear equations and inequalities; properties of exponents; polynomials; rational expressions; rational exponents and roots; and quadratic equations.

Students must pass Math 118T before continuing with Math 120\*.

Prerequisite: Fulfillment of placement requirements or a grade of C (not C-) or better in IS-Math 100.

**Math 120: Intermediate Algebra. (3)**

Preparation for Math 121, 129, and Stat 145. Covers linear equations and inequalities, polynomials, factoring, exponents, radicals, fractional expressions and equations, quadratic equations, perimeters and areas of simple geometric shapes. Emphasis on problem solving skills.

Corequisite: Math 106 (UNM-LA Only)

Prerequisites: Fulfillment of placement requirements or grade of C (not C-) or better in IS-M 100.

**Math 121: College Algebra. (3)**

Preparation for Math 150 and 180. The study of equations,

functions and graphs, especially linear and quadratic functions. Introduction to polynomial, rational, exponential and logarithmic functions. Applications involving simple geometric objects. Emphasizes algebraic problem solving skills.

Prerequisite: Fulfillment of placement requirements or a grade of C (not C-) or better in Math 120.

Corequisite: Math 107(UNM-LA Only)

**Math 123: Trigonometry. (3)**

Definition of the trigonometric functions, radian and degree measure, graphs, basic trigonometric identities inverse trigonometric functions, complex numbers, polar coordinates and graphs, vectors in 2 dimensions.

Prerequisite: Fulfillment of placement requirements or a grade of C (not C-) or better in Math 121.

**Math 129: A Survey of Mathematics. (3)**

An introduction to some of the great ideas of mathematics, including logic, systems of numbers, sequences and series, geometry and probability. Emphasizes general problem-solving skills.

Prerequisite: Fulfillment of department placement requirements or a grade of C (not C-) or better in Math 120.

**Math 150: Pre-Calculus Mathematics. (3)**

In-depth study of polynomial, rational, exponential and logarithmic functions and their graphs. Includes the fundamental theorem of algebra, systems of equations, conic sections, parametric equations and applications in geometry. Exploration of the graphing calculator.

Prerequisite: Fulfillment of placement requirements or grade of C (not C-) or better in Math 121.

Pre-or Corequisite: Math 123

**Math 162: Calculus I. (4)**

Derivative as a rate of change, intuitive, numerical, and theoretical concepts, applications to graphing, linearization and optimization. Integral as a sum, relation between integral and derivative, and applications of definite integral.

Prerequisite: Fulfillment of placement requirements or a grade of C (not C-) or better in Math 150 and Math 123.

**Math 163: Calculus II. (4)**

Transcendental functions, techniques of integration, numerical integration, improper integrals, sequences and series with applications, complex variables and parameterization of curves.

Prerequisite: A grade of C (not C-) or better in Math 162.

**Math 180: Elements of Calculus I. (3)**

Limits of functions and continuity, intuitive concepts and basic properties; derivative as a rate of change, basic differentiation techniques; application of differential calculus to graphing and minima-maxima problems; exponential and logarithmic functions with applications.

Prerequisite: Fulfillment of placement requirements or a grade of C (not C-) or better in Math 121 or Math 150.

Corequisite: Math 110 (UNM-LA Only)

**Math 181: Elements of Calculus II. (3)**

Includes the definite integral, multivariate calculus, simple differential equations, basic review of trigonometry and its relation to calculus.

Prerequisites: A grade of C (not C-) or better in Math 180 and some knowledge of trigonometry or Math 123.

Math 123 can be taken simultaneously with Math 181.

**Math 192T\*: Topics. (1-3)**

Titles will vary.

CR/NC.

**Math 215: Mathematics for Elementary and Middle School Teachers III. (3)**

Topics from probability and statistics, coordinate geometry and measurement, and algebra; some applications of mathematics; elements of logic; enrichment topics for the classroom.

Prerequisite: A grade of C (not C-) or better in Math 111 and Math 112.

**Math 264: Calculus III. (4)**

Vector operations, vector representation of planes and curves, functions of several variables, partial derivatives, gradient, tangent planes, optimization, multiple integrals in Cartesian cylindrical and spherical coordinates, vector fields, line integrals and Green's theorem.

Prerequisite: A grade of C (not C-) or better in 163.

**Math 292T\*: Topics. (1-3)**

Titles will vary.

CR/NC

**Math 293T\*: Topics. (1-3)**

Titles will vary.

**Stat 145: Introduction to Statistics. (3)**

Techniques for the visual presentation of numerical data, descriptive statistics, introduction to probability and basic probability models used in statistics, introduction to sampling and statistical inference, illustrated by examples from a variety of fields. Prerequisite: Fulfillment of department placement requirements or a grade of C (not C-) or better in Math 120.

**Stat 245: Introduction to Business Statistics. (3)**

An overview of the use of statistics in business, descriptive statistics and numerical characteristics of data, introduction to probability, statistical inference including t-tests and regression, confidence intervals; application to business problems will be emphasized. Also offered as Mgt 290. Prerequisites: A grade of C (not C-) or better in Math 180 and CS 150L.

## Mechanical Technology

**Mech T 101LT: Basic Welding. (4)**

This course focuses on the fundamental techniques employed in the welding field. It is a laboratory approach to understanding and building skills in welding related areas including shop safety, hand and portable power tool usage, and welding—including gas welding, brazing and cutting (oxy-acetylene), stick (SMAW), MIG (GMAW), TIG (GTAW), and plasma arc cutting (PAC). Students may opt to specialize in one or more of the areas after required exercises in all areas are satisfied.

**Mech T 192T\*: Topics (1-3)**

Titles will vary.

CR/NC

**Mech T 193T\*: Topics (1-3)**

Titles will vary.

## Media Arts

**MA 110: Introduction to Mass Communication. (3)**

The development of the mass media with emphasis on television in the areas of programming, policy, regulations, economics and technology. Examination of the social, cultural, and political impact of the mass media on contemporary society.

Also offered as C & J 110.

## Music

*\*May be repeated for credit with permission of Fine Arts Curriculum Coordinator.*

**Music 102: Music Theory for the Non Major. (3)**

Students will develop awareness of basic elements of melody, rhythm, harmony, form and expression through involvement as singers, players, creators, movers listeners, and readers of music. Designed for students with little or no musical training.

**Music 109: Group Voice I. (1) \***

Open to beginners in voice except voice performance majors.

**Music 110: Group Voice II. (1) \***

Music education students in the vocal track must continue to enroll in this course until a grade of C or better is obtained. Prerequisite: Music 109.

**Music 111: Group Piano I. (1) \***

Beginning repertoire and sight-reading, basic scale and chord patterns in major keys. For the complete beginner. Not open to keyboard majors. Primarily for music majors and minors, but open to all students.

Prerequisite: Permission of instructor.

**Music 112: Group Piano II. (1) \***

Late elementary repertoire, sight-reading moving out of the five-finger position, minor scale and chord patterns. Not open to keyboard majors. Primarily for music majors and minors, but open to all students.

Prerequisite: 111 or permission of instructor.

**Music 113: Mexican Guitar. (1)**

Group Instruction.

**Music 114: Mexican Guitar. (1)**

Continuation of Music 113.

**Music 139: Music Appreciation. (3)**

A non-technical course designed to expand the student's ability to listen actively. Repertoire includes compositions from chamber music and symphonic literature.

**Music 140: Music Appreciation. (3)**

A non-technical course designed to expand the student's ability to listen actively. Repertoire includes compositions from symphonic, chamber music, and vocal literature and is entirely different from that presented in course Music 139.

**Music 150: Music Theory I. (4)**

Fundamentals, part-writing and harmonic analysis: introduction to diatonic theory.

Corequisite: Music 150L.

**Music 150L: Music Theory I Aural Lab. (0)**

Perception through sound of diatonic materials, with special emphasis on melodic, rhythmic and harmonic dictation and the singing of simple melodies, rhythms and intervals.

Corequisite: Music 150.

**Music 172: Jazz History. (3)**

A study of the evolution of jazz in the United States from its beginnings to the present.

**Music 192T\*: Topics. (1-3)**

Titles will vary.

CR/NC.

**Music 193T\*: Topics. (1-3)**

Titles will vary.

**Music 211: Group Piano III. (1) \***

Intermediate repertoire, reading skill, chord and scale patterns. Not open to keyboard majors. Primarily for music majors and minors, but open to all students.

Prerequisites: Music 112 or permission of instructor.

**Music 212: Group Piano IV. (1) \***

Later intermediate to early advanced repertoire and sight-reading. Review of scales and chords. Not open to keyboard majors. Primarily for music majors and minors, but open to all students who are music education majors must continue to enroll in this course until the piano proficiency examination is passed.

Prerequisites: Music 211 or permission of instructor.

**Music 271: Music Today. (3)**

A survey of how Western art music and popular music developed during the 20th century especially with regard to the effect that social and economic forces had upon the art. Attendance at several on-campus concerts is required; discussion and live performance by guest musicians is included.

**Music 292T\*: Topics. (3)**

Titles will vary.

CR/NC.

**Music 293T\*: Topics. (1-3)**

Titles will vary.

## Music Education

### **Music 298: Music for the Elementary Teacher. (3)**

Will prepare elementary classroom teachers to teach music education in a self-contained classroom in traditional and open situations.

## Native American Studies

Nat Am 150: Introduction to Native American Studies. (3)

Examines the unique status of sovereign Native American nations/tribes from pre-contact until 1871 and provides an introduction and foundation for understanding social, geographic, and linguistic differences around indigenous populations in North America from a Native American perspective.

### **Nat Am 252: The Native American Experience. (3)**

(Also offered as Am St 252). Introductory survey of Native American history, culture, and contemporary issues. Students read literature by and about Native Americans covering a variety of topics including tribal sovereignty, federal policy, activism, economic development, education, and community life.

## Natural Science

### **SEE IS-NATURAL SCIENCE**

#### **Nat Sc 261L: Physical Science. (4)**

For pre-service K-8 teachers only. A broad, interdisciplinary introduction to the science of geology, chemistry, physics, and astronomy, with emphasis on the science processes, inquiry and the integration of technology. The course is activity-based, utilizing a problems-and-issues based approach; various teaching methods are modeled, and practiced by students; some field trips may be required.

#### **Nat Sc 262L: Life Science. (4)**

For pre-service K-8 teachers only. An activity-based study of science topics including botany, cell biology, genetics, microbiology, and zoology with emphasis on science processes, inquiry, and the integration of technology. Various teaching methods are modeled and practiced by students; some field trips may be required.

Prerequisite: Nat Sc 261L and Math 112, or permission of instructor.

#### **Nat Sc 263L: Environmental Science. (4)**

For pre-service K-8 teachers only. An activity-based interdisciplinary study of major issues in environmental science

with emphasis on science process, scientific investigations, and field-based activities and the integration of technology. Course topics include current issues on population, healthy ecosystems, and natural resources. Various teaching methods are modeled and practiced by students.

Prerequisite: Nat Sc 261L, 262L, or permission of Instructor.

## Nutrition

### **Nutr 120: Nutrition for Health. (3)**

General concepts of nutrition applied to food choices that support health. Cultural, psychological and economic implications of food choices

Credit not allowed for both 120 and 244

### **Nutr 244: Human Nutrition. (3)**

This course provides an overview of all the nutrients including function in the body and food sources. Dietary guidelines intended to promote long term health are stressed.

Prerequisites: Biol 123/124L, or Chem 111L or Chem 121L, or the equivalent.

### **Nutr 293: Topics. (1-3 to a maximum of 6)**

Titles will vary.

## Organizational Learning and Instructional Technologies (OLIT)

### **OLIT 293: Topics. (1-3)**

## Philosophy

### **Phil 101: Introduction to Philosophical Problems. (3)**

Philosophical issues and methodology illustrated through selected problems concerning values, knowledge, reality; and in social political, and religious philosophy.

### **Phil 111-112: Humanities I-II. (3, 3)**

Comparative introduction to the development of human civilizations emphasizing philosophic thought, religious practice, and artistic expression.

### **Phil 156: Reasoning and Critical Thinking. (3)**

The purpose of this course is to help students learn how to analyze, critique, and construct arguments in context, in other words, how to read and write argumentative essays.

**Phil 201: Greek Philosophy. (3)**

An introductory survey of early and classical Greek philosophy. Figures: the Presocratics, Socrates, Plato, and Aristotle. Topics: beginnings of scientific thought; theories of the self; the concept of being; ethical relativism, happiness, theories of justice.

**Phil 204: Greek Civilization. (3)**

An interdisciplinary introduction to the ancient world as the foundation of modern civilization. Lectures on classical art, history, literature, and philosophy.

Also offered as Art Hi 204, Clscs 204, Hist 204

**Phil 205: Roman Civilization. (3)**

An interdisciplinary introduction to ancient Rome. Lectures on Roman literature, history, art, and philosophy.

Also offered as Art Hi 205, Clscs 205, Hist 205

**Phil 241: Philosophic Problems. (3 to a maximum of 12)**

Topics to vary. An elementary treatment of some major philosophic issues.

**Phil 244: Introduction to Existentialism. (3)**

An examination of the works of writers such as Kierkegaard, Nietzsche, Kafka and Sartre who emphasize such issues as death, decision, rebellion, and faith.

**Phil 245: Professional Ethics. (3)**

Examination of social and ethical problems associated with the business, engineering, medical, and legal professions.



**Physical Education  
Non-professional**

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

**P E-NP 101: Beginning Swimming. (1)**

Instruction for students who have not been in the water or have a fear of water.

**P E-NP 102: Intermediate Swimming. (1)**

Instruction in all basic strokes. For students who can swim.

**P E-NP 106: Lifesaving. (1)**

Instruction and practice in lifesaving techniques which lead to advanced Red Cross Lifesaving Certificate.

Prerequisite: ability to swim, basic strokes.

**P E-NP 124: Ballroom Dance. (1)**

Instruction in the basic movements of social dances such as fox trot, waltz, lindy, rumba, tango and cha-cha.

**P E-NP 128: Beginning Country Western Dance. (1)**

Instruction in the basic movements of the Waltz, Two-Step, Swing, and Polka.

**P E-NP 138: Karate. (1)**

Instruction in the basic skills, blocks, strikes, and kicks of Japanese karate.

**P E-NP 140: Beginning Golf. (1)**

Instruction in the basic skills, equipment, rules, etiquette, and shot making.

**P E-NP 143: Beginning Tennis. (1)**

Instruction in the basic skills and rules of tennis.

**P E-NP 144: Intermediate Tennis. (1)**

Instruction dependent upon experience and skills of students in basic fundamentals. Perfection of strokes.

**P E-NP 152: Racquetball. (1)**

Instruction and practice in the skills and rules of racquetball.

**P E-NP 158: Aerobic Dance I. (1)**

Instruction in continuous movement using basic dance steps for improved cardiorespiratory endurance. Fitness Test Fee.

**P E-NP 160: Weight Training and Physical Conditioning. (1)**

Individual training programs for development of general strength, tone, endurance, and weight control.

**P E-NP 165: Yoga. (1)**

Introduction to the five areas of yoga which are particularly significant to the Western World.

**P E-NP 166: Intermediate Yoga. (1)**

Instruction in more advanced techniques of Yoga emphasizing the physical aspects of Hatha Yoga.

**P E-NP 167: Basketball. (1)**

Instruction and practice of basic skills.

**P E-NP 170: Volleyball. (1)**

Instruction and practice of basic game skills, with emphasis on power techniques.

**P E-NP 179: Cross Country Skiing. (1)**

Instruction and practice in techniques leading to cross country touring.

**P E-NP 192T\*: Topics. (1-3)**

Titles will vary.  
CR/NC.

**P E-NP 193T\*: Topics. (1-3)**

Titles will vary.

**Physics and Astronomy**

**ASTRONOMY**

**Astr 101: Introduction to Astronomy. (3)**

Conceptual description of our fascinating universe: early astronomy, Newtonian synthesis, Earth, Moon, planets, asteroids, comets, the Sun, our solar system, stars, black holes, galaxies, dark matter, dark energy and cosmological mysteries.

**Astr 101L: Astronomy Laboratory. (1)**

Intended as an adjunct to Astr 101, this course deals with elementary techniques in astronomical observations.  
Pre- or corequisite: Astr 101.

**PHYSICS**

**Physcs 102: Introduction to Physics. (3)**

Designed to introduce non-science majors to basic concepts, laws and skills in physics, in various applications to ordinary life. Energy, momentum, force, wave phenomena, electric charge and photons are discussed, also basic properties of gravitational, electromagnetic and nuclear forces. Selections from relativity, quantum theory, atoms and molecules will be included. See Physcs 102L for an optional laboratory.

**Physcs 102L: Physics Laboratory. (1)**

Students involve themselves in experiments and projects showing basic concepts related to the atom, the environment and the universe.  
Pre- or corequisite: Physcs 102.

**Physcs 105: Physics and Society. (3)**

Designed to introduce non-science majors to basic concepts, laws and skills in classical and quantum physics as a basis to discuss the interrelationships of society and physics. Examples where energy, momentum, special relativity, thermal physics, quantum and nuclear physics have important roles are discussed; these could include meteorology, aviation weather, fission and fusion reactors, science policy and ethics, alternative energy sources.

**Physcs 151: General Physics. (3)**

Mechanics, sound, heat. The sequence 151, 151L, 152, 152L is required of pre-medical, pre-dental, and pre-optometry students.

Only 151 and 152 are required of pharmacy students.

Prerequisites: A working knowledge of algebra at the level of Math 150, and of trigonometry [Math 123].

**Physcs 151L: General Physics Laboratory. (1)**

Mechanics, sound, heat.  
Pre- or corequisite: Physcs 151.

**Physcs 152: General Physics. (3)**

Electricity, magnetism, optics.  
Prerequisite: Physcs 151.

**Physcs 152L: General Physics Laboratory. (1)**

Electricity, magnetism, optics.  
Pre- or corequisite: Physcs 152.

**Physcs 157: Problems in General Physics. (1)**

Problem solving and demonstrations related to Physcs 151.  
Corequisite: Physcs 151.  
CR/NC.

**Physcs 158: Problems in General Physics. (1)**

Problem solving and demonstrations related to Physcs 152.  
Corequisite: Physcs 152.  
CR/NC.

**Physcs 160: General Physics. (3)**

Mechanics, sound. (The sequence 160, 160L, 161, 161L, 262, 262L is required of students planning to major in certain sciences and in engineering.)  
Pre- or corequisite: Math 162.

**Physcs 160L: General Physics Laboratory. (1)**

Mechanics, sound.  
Pre- or corequisite: Physcs 160.

**Physcs 161: General Physics. (3)**

Heat, electricity, magnetism.  
Prerequisite: Physcs 160; pre- or corequisite: Math 163.

**Physcs 161L: General Physics Laboratory. (1)**

Heat, electricity and magnetism.  
Pre- or corequisite: Physcs 161.

**Physcs 167: Problems in General Physics. (1)**

Problem solving and demonstrations related to Physcs 160.

Corequisite: Physcs 160.

CR/NC.

**Physcs 168: Problems in General Physics. (1)**

Problem solving and demonstrations related to 161.

Corequisite: Physcs 161.

CR/NC.

**Physcs 262: General Physics. (3)**

Optics, modern physics.

Prerequisite: Physcs 161; pre- or corequisite: Math 264.

**Physcs 262L: General Physics Laboratory. (1)**

Optics, modern physics.

Pre- or corequisite: Physcs 262.

**Physcs 267: Problems in General Physics. (1)**

Problem solving and demonstrations related to Physcs 262.

Corequisite: Physcs 262.

CR/NC.

## Political Science

**Pol Sc 110: The Political World. (3)**

An introduction to politics, with emphasis on the ways people can understand their own political systems and those of others.

Students who have already had courses in political science may not count Pol Sc 110 toward a major

**Pol Sc 200: American Politics. (3)**

Survey of American politics, including political behavior of the American electorate, the theory of democracy, the structure and function of American political institutions, and contemporary issues.

**Pol Sc 220: Comparative Politics. (3)**

Designed to give students the ability to understand and evaluate political regimes by focusing on the political history, socio-economic structure, and contemporary political institutions and behavior. Includes consideration of European, and developing systems.

**Pol Sc 240: International Politics. (3)**

Analyzes significant factors in world politics, including nationalism, "national interest," ideology, international conflict and collaboration, balance of power, deterrence, international law, and international organization.

## Psychology

**Psych 105: General Psychology. (3)**

Overview of the major content areas in psychology. Topics to be covered include learning, cognition, perception, motivation, biological systems, social and abnormal psychology, development, personality, and approaches to psychotherapy.

**Psych 200: Statistical Principles. (3)**

Presentation of the basic principles of the description and interpretation of data. Provides an acquaintance with statistical principles appropriate to a liberal arts education, as well as a basis for further work in data analysis. Students planning graduate study in any field are advised to take 300 and 302 as well.

Prerequisite: Psych 105.

**Psych 220: Developmental Psychology. (3)**

Overview of the physical, perceptual, motor, cognitive, emotional and social development of children from infancy through adolescence.

Prerequisite: Psych 105.

**Psych 231: Psychology of Human Sexuality. (3)**

Exploration of the physiological, cultural, social and individual factors that influence sexual behavior sex roles, and sex identity.

Prerequisite: Psych 105.

Also offered as Wm St 231.

**Psych 240: Brain and Behavior. (3)**

A general survey of the biological foundations of behavior. Emphasis is on the central nervous system.

Prerequisite: Psych 105 or Biol 121L.

**Psych 260: Psychology of Learning and Memory. (3)**

Survey of the variety of laboratory learning situations, with an emphasis on the application of principles to practical situations. Topics range from simple processes such as conditioning to complex processes such as transfer, memory, and concept formation.

Prerequisite: Psych 105.

**Psych 265: Cognitive Psychology. (3)**

Study of the cognitive processes involved in the encoding, storage, retrieval and use of knowledge including attention, memory, comprehension, categorization, reasoning, problem solving and language.

Prerequisite: Psych 105.



**Psych 271: Social Psychology. (3)**

Study of social influence: perception of oneself and others, attitudes, conformity, attraction, altruism, aggression, groups. Prerequisite: Psych 105.

## Religious Studies

**Relig 101: Introduction to Religious Studies. (3)**

Comparative study of religious beliefs, practices, and institutions.

**Relig 103: Introduction to the Bible. (3)**

Survey of the Bible in historical context.

**Relig 107: Living World Religions. (3)**

Introduction to major living world religions, such as Buddhism, Christianity, Hinduism, Islam, and Judaism.

**Relig 247: Studies in Religions. (3)**

Elementary topics in the study of world religions. Course may be repeated up to three times provided the topics vary.

**Relig 263: Eastern Religions. (3)**

A study of major Asian traditions, such as Taoism, Hinduism and Buddhism.

**Relig 264: Western Religions. (3)**

A study of major Western traditions, such as Christianity, Islam, and Judaism.

## Russian

**Russ 101: Elementary Russian. (3)**

Elementary Russian for students with no previous exposure to the language. Development of all four-language skills: reading, speaking, writing and listening comprehension.

Can be taken in conjunction with Russian 103.

**Russ 102: Elementary Russian II. (3)**

Elementary Russian for students who have completed Russian 101 or equivalent. Continued development of all four skills.

Can be taken in conjunction with Russ 104.

**Russ 103-104: Beginnings: Speaking Russian (1, 1)**

Practice in basic conversation and training in acquiring a good accent. The courses are supplemental to Russ 101-102 and stress the patterns and forms introduced in the main courses.

**Russ 201-202: Intermediate Russian. (3, 3)**

Prerequisites: Russ 101-102 or the equivalent.

**Russ 203: Communicating in Russian I. (1-3)**

Developing survival skills in using Russian on a practical level. Requesting and providing essential information and simple conversation. Required of all majors and minors.

Prerequisite: Russ 102 or higher.

Corequisite: Russ 201 or higher.

**Russ 204: Communicating in Russian II. (1-3)**

Developing survival skills in using Russian on a practical level. Requesting and providing essential information and simple conversation. Required of all majors and minors.

Prerequisite: Russ 102 or higher.

Corequisite: Russ 201 or higher.

## Sociology

**Soc 101: Introduction to Sociology. (3)**

Basic concepts, topics, and theories of contemporary sociology. Prerequisite for more advanced courses in sociology.

**Soc 205: Crime, Public Policy and the Criminal Justice System. [Crime and Society]. (3)**

The study of crime, the criminal justice system and crime-related public policy. Discussion of key criminological concepts, measurement of crime and delinquency, its distribution in society, victimization, public opinion, the criminal justice system, crime control strategies and policies.

Prerequisite: Soc 101.

**Soc 211: Social Problems. (3)**

Description and analysis of major social problems facing American society. Foci may include: poverty, homelessness, alcohol and drug problems, race and ethnic relations, aging and mental illness.

Prerequisite: Soc 101.

**Soc 213: Deviant Behavior. (3)**

Survey of major forms of norm-violating behavior in American society, such as drug and alcohol abuse, mental illness, criminal behavior, and sexual deviance. Discussion of sociological explanations of the causes of, and attempts to address, these behaviors.

Prerequisite: Soc 101.

**Soc 216: The Dynamics of Prejudice. (3)**

The study of prejudice and discrimination, including their historical and contemporary sources and prospects for their reduction, with applications to American institutions.

Prerequisite: Soc 101.

**Soc 225: Marriage, Family and Their Alternatives. (3)**

Comparative analysis of contemporary family and household forms such as dual-worker, single-parent and homosexual couple households. Focus on links between large-scale social changes and changing family composition and interaction patterns.

Prerequisite: Soc 101.

**Soc 230: Society and Personality. (3)**

The social psychology of personalities, relationships, small groups, and organizations.

Prerequisite: Soc 101.

**Spanish and Portuguese**

*Courses marked with an \* may be repeated for credit because the subject matter varies.*

**Spanish**

**Span 101: Elementary Spanish. (3)**

Beginning Spanish for students with no previous exposure to Spanish. Development of all four language skills, with emphasis on listening and speaking.

**Span 102: Elementary Spanish. (3)**

Beginning Spanish for students who have completed Span 101 or equivalent. Continued development of four skills with emphasis on listening and speaking.

**Span 103-104: Elementary Spanish Conversation. (1, 1)**

Supplementary courses to Span 101-102 for students interested in additional practice in speaking. CR/NC.

**Span 120: Workshop in Conversational Spanish. (1)**

Conversational Spanish in the Freshman and Sophomore levels.

May not be used to satisfy language requirements.

**Span 201: Intermediate Spanish. (1-3 to a maximum of 3)**

Intermediate Spanish for students who have completed 102 or equivalent. Review of grammar and further development of all four skills.

**Span 202: Intermediate Spanish. (3)**

Intermediate Spanish for students who have completed Span 201 or equivalent. Continued development of all four skills with emphasis on reading.

**Span 203: Spanish Conversation. (3)**

For students who have completed or are currently enrolled in Span 201, Span 202, or Span 276. Small classes designed to increase skills in speaking Spanish. Not for native speakers.

**Span 276: Accelerated Beginning Spanish. (6)**

Intensive one semester course designed for language enthusiasts who want a review or can devote the time required to cover two semesters in one. Equivalent to 101 and 102.

**Span 293T\*: Topics. (1-3)**

Titles will vary.

**Statistics (STAT)**

**Stat 145: Introduction to Statistics. (3)**

Techniques for the visual presentation of numerical data, descriptive statistics, introduction to probability and basic probability models used in statistics, introduction to sampling and statistical inference, illustrated by examples from a variety of fields.

Prerequisite: fulfillment of department placement requirements or a grade of C (not C-) or better in Math 120.

**Stat 245: Introduction to Business Statistics. (3)**

An overview of the use of statistics in business, descriptive statistics and numerical characteristics of data, introduction to probability, statistical inference including t-tests and regression, confidence intervals; application to business problems will be emphasized.

Also offered as Mgt 290.

Prerequisite: Math 180 or equivalent and CS 150L.

**Theatre and Dance**

**Dance**

Courses marked with an \* may be repeated for credit because subject matters varies.

**Dance 169: Flamenco I (2 to a maximum of 6)\***

Fundamental work for the adult beginner in techniques and styles of Flamenco.

**Theatre**

**Thea 120: Acting Foundations I. (3)**

Beginning acting. The basic fundamentals of acting including analytical and physical skills of the actor, personal work habits, and taking responsibility for the actor's craft.

**Thea 121: Acting Foundations II. (3)**

Continuation of 120 with emphasis on textual material.  
Prerequisite: Thea 120.

**Thea 122: Theatre Appreciation. (3)**

A broad-based, experiential course for non-majors to enhance their enjoyment of theatre - going. Course work includes attending performances, readings of plays and supporting texts, lectures, guest speakers and discussion.

**Woodworking**

**W W 101T: Basic Wood Working. (3)**

This course introduces students to the wonderful world of wood and related materials, the use and misuse of hand and power tools, and shop safety procedures. The course also demonstrates professional construction techniques and the magic of joinery. This class is half lecture and half shop time, during which students create individual projects. Lab fee. (Does not include student materials).

**W W 110T: Furniture Design and Construction. (3)**

An introduction to creating furniture from conception to

completed work. Course will include the history of furniture design, the drawing of furniture, various woods, joinery and construction techniques. Tools equipment and shop safety will be included.

**W W 114T: Spanish Colonial Carving. (3)**

Instruction is traditional methods of carving using the designs, tools and techniques of Spanish Colonial wood working.

**W W 120T: Wood Working Shop. (3)**

This advanced course is for students who have completed a basic wood working course and are prepared to work on individual projects. The student is required to design his or her own project. The instructor will conduct a refresher course on safety, tools, equipment, design, and stock preparation prior to students beginning their projects.

**W W 193T: Topics: Wood Carving. (3)**

This course will focus on fundamental techniques employed in a general wood working shop. The course will include building skills in shop safety and basic wood working techniques. Students will develop and increase their skill-level in wood working techniques including design, cutting, joining and finishing, Students will utilize machine tools and portable hand tools.



# UNM EXTENDED UNIVERSITY-LOS ALAMOS

## Graduate and Upper Division Programs

### Introduction

UNM has offered graduate-level courses in Los Alamos since 1947 and the Graduate and Upper Division Programs Office has been operation since 1956. In 1999 UNM (Albuquerque Campus) Extended University assumed coordination of the University's distance education component, which includes the Center in Los Alamos. Its main functions are to offer upper division and graduate courses in selected technical areas to Los Alamos National Laboratory employees and to provide educational opportunities to residents of Los Alamos and surrounding communities. Since 1956, 697 degrees at the bachelor's, master's, and doctoral levels have been granted to Extended University—Los Alamos affiliated students by the University of New Mexico. Of the students enrolled at EU—Los Alamos, forty percent take graduate level courses and sixty percent are enrolled in upper division, undergraduate courses. The most popular programs in recent years have been Hazardous Waste Engineering, Computer Science, and Chemical and Nuclear Engineering.

Master's degree courses are offered in Chemical Engineering, Nuclear Engineering (Radiation Protection and Hazardous Waste Engineering), Educational Leadership, Public Administration, Computer Science, Electrical and Computer Engineering, and Mechanical Engineering. Bachelor's degree program courses are offered in Computer Science and other Engineering degrees, as well as University Studies. Upper division, undergraduate courses are also available in areas that support the master's and bachelor's programs such as Chemistry, Mathematics, Anthropology, Biology, English, History, Psychology, Sociology, Earth and Planetary Sciences, Communication & Journalism and American Studies.

The mission of Extended University's Los Alamos Center is to create enriching educational experiences for northern New Mexico students. This mission is accomplished through the delivery of instruction in traditional face-to-face teaching, as well as through a variety of technologies including instructional television, correspondence and the Internet. Courses offered through the center broaden the choices for students beyond the limitations of a physical location and make it possible to complete a UNM degree while residing in Los Alamos or surrounding communities. Students enrolled in 200-level courses at UNM-Los Alamos are encouraged to consider the 300-level courses offered by UNM Extended University.

### Course Cancellations

Budgetary limitations, enrollment figures, or availability of instructors may require courses to be cancelled. Decisions regarding the cancellation of instructional television courses are usually made at the close of the regular registration period.

The cancellation decision for on-site instructor courses is made after the first meeting. Because the major determining factor for cancellations is enrollment, it is most important that students register early during the scheduled registration period.

### Procedures for Changes in Student Programs

Program changes, i.e., drops, adds, section changes, and withdrawals, must be initiated by the student through the I-TEL-UNM telephone or online registration system or in person at UNM-LA. Please note that no adds, drops, section changes, or withdrawals may be made after the particular designated dates, which are as follows:

- Last day for adds..... end of second week of classes
- Last day for changes in section..... end of second week of classes
- Last day for drops without a grade.....end of sixth week of classes
- Last day for withdrawal from a course without approval (WP/WF assigned)..... end of twelfth week of classes
- Last day for withdrawal from a course with Dean's or Program Manager's approval (WP/WF assigned) ..... end of sixteenth week of classes

### Withdrawal Policy

Students who wish to withdraw must complete the appropriate procedures through the I-TEL-UNM telephone or online registration system or in person at UNM-LA. Students leaving the university during a semester/session without withdrawing according to UNM regulations will receive a grade of "F" for each course, even though they were passing their courses up to this point. Withdrawals initiated after the sixth week will result in grades of withdrawal/pass (WP) or withdrawal/fail (WF). The grade of WF will be calculated as a failing grade in the student's grade point average. All withdrawal grades will be assigned by the instructor upon completion of the withdrawal process.

### Tuition and Fees

For residents, upper division, undergraduate courses have a tuition charge of \$155.75 per credit hour and graduate courses, \$171.25 per credit hour. Non-residents enrolled for 6 hours or less are charged resident rates. Non-residents who enroll for more than six hours will be charged at a higher rate. ITV courses have an additional delivery charge of \$350.00 per student, per 3 credit hour course. Tuition rates are subject to change.

### ITV Delivery Fee Refunds

- Withdrawal during first three weeks (First week of Summer Session).....100%
- Withdrawal after third week (First week of Summer Session).....0%

### Tuition Refunds

Withdrawal during first, three weeks  
(First week of Summer Session).....100%  
Partial or complete withdrawal after the third week  
(First week of Summer Session.....0%

### Academic Information

Students are strongly urged to apply for admission to graduate or undergraduate student status by applying to specific departments or programs. Students are not considered graduate or undergraduate students in non-degree status. Students are responsible for complying with all rules and regulations as specified in the University of New Mexico Catalog and should have a copy of the most recent version. (They are available for sale at the UNM-Los Alamos Bookstore.)

### Non-Degree Status

**For students in non-degree status taking graduate level work:**

1. A limited number of graduate credit hours earned in non-degree status may be used toward a graduate degree if the student is later admitted to graduate school, and has received a grade of "B" or better. However, the grades for the courses will not count in the student's graduate GPA. Contact specific departments for rules and limitations.

2. To obtain graduate credit for 400 level courses that carry graduate credit, students must meet certain requirements. See the Extended University-Los Alamos Center for details.

For course descriptions, see the most recent UNM Catalog. Students are expected to have their own copy for reference. Special topics courses have unique course descriptions. Course descriptions are also available in the Extended University Course Schedule. Please contact the Extended University—Los Alamos Center at 662-0335 for a copy.

### Advisement

General advisement is available at the Graduate and Upper Division Programs Office. Specific program and academic advisement is the province of UNM Departments; students pursuing degrees from UNM should also contact the appropriate departmental advisor at main campus. A list of current graduate advisors is available in the EU-LA Center office.

An advisor from the Bachelor of University Studies program is in Los Alamos twice a month. Call (505) 662-0335 to schedule an appointment.

**Visit the Extended University Website at <http://eu.unm.edu> for more information and course schedules.**

## Graduate and Upper Division Programs

### Courses toward a Master's Degree are available in:

- Computer Science
- Chemical Engineering
- Educational Leadership
- Nuclear Engineering
- Electrical and Computer Engineering
- Hazardous Waste Engineering
- Mechanical Engineering
- Public Administration

### Courses toward a Bachelor's Degree are available in:

- Computer Science
- Chemical Engineering
- Nuclear Engineering
- Electrical and Computer Engineering
- Hazardous Waste Engineering
- Mechanical Engineering
- Public Administration
- University studies

### Upper Division Courses are also available in:

- Chemistry
- Mathematics
- Mechanical Engineering
- Electrical and Computer Engineering
- Chemical and Nuclear Engineering
- Earth and Planetary Sciences
- English
- History
- Psychology
- Sociology
- Anthropology
- American Studies
- Communication & Journalism

**A certificate program in Waste Management is also offered.**

# UNM-Los Alamos Governing Bodies, Staff and Core Faculty

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Member  
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Member

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### Administrative Staff

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Carlos Ramirez  
Ph.D., University of California–Santa Barbara

#### Associate Director for Instruction

Phyllis Mingus-Pepin  
Ed. D., The University of New Mexico

#### Associate Director for Business Services

Debbie Valdez  
BBA, The University of New Mexico

#### Associate Director for Student Services

Vacant

### Other Staff Members

#### Director’s Office

Administrative Assistant  
Kathy Casados  
BA, The University of New Mexico

#### Computer Facilities

Manager  
Anthony Valdez  
AAS, The University of New Mexico  
Computer Hardware Technician  
Gilbert Gallegos  
BA, Colorado State University

#### Public Affairs

Senior Representative  
Bonnie Gordon  
BA, Reed College

#### Instruction

Administrative Assistant III  
Sandra Sturges  
AA, Los Angeles College  
Administrative Assistant II  
Kateri Morris

#### Adult Learning Center

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Cecelia Duenas  
MA, University of Phoenix  
Administrative Assistant II  
Shari Jobe  
BA, Northern Arizona University

**Community Education**

Supervisor

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M.Ed., Harvard University

Administrative Assistant II

Eileen Gallegos

AAS, Northern New Mexico Community College

Program Coordinator

Cindy Leyba

BA, University of New Mexico

**Library**

Director

Dennis Davies-Wilson

MLS, Indiana University

Library Information Specialist III

Richard Norton

BS, University of California–Santa Barbara

Library Information Specialist II

Beverly Hollander

MA, California State University

Library Information Specialist II

Kathleen Peterson

BA, University of Redlands

**Tutorial Center**

Coordinators

Wanda Carothers

BS, Mississippi University for Women

Karen Meier

BA, University of Missouri–St. Louis

**Student Services**

Academic Advisor

Gloria McDowell

BUS, University of New Mexico

Supervisor, Financial Aid

Yohanna Wiuff

BBA, The University of New Mexico

Branch/Division Registrar

Maise Trujillo

BUS, University of New Mexico

Branch/Division Enrollment Representative

Irene Martinez

AAS, Northern New Mexico Community College

Administrative Assistant II

Constance Calloway

**Administrative Services**

Personnel Coordinator/Housing Coordinator

Betsy Allander

Bookstore Manager

Steve Ciddio

BA, College of Santa Fe

**Business & Finance**

Manager, Business Services

Lydia Armijo

BS, College of Santa Fe

Accountant II

Richard Goshorn

BBS, University of New Mexico

Accounting Technicians

Gayle Burns

Olivia Lopez

Food Services

Juan Dominguez

Receptionist

Jan Merrell

AA, Longview Community College

**Physical Plant**

Manager

Eugene Ortiz

Facilities Services Technicians

David Elliott

Manuel Lopez

David Suazo

Annabelle Martinez

Howard Naranjo

Jose Torres

**UNM Extended University-Los Alamos**

Manager

Vacant

Enrollment Services Coordinator

Vacant

Instructional Assistants

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JD, Saint Marys University

Deni Halladay

AA, UNM-Los Alamos

Jennifer Sykes

**Division Chairs****Arts and Social Sciences**

Kate Massengale

Ph.D., Rice University

**Mathematics, Natural & Applied Sciences and Engineering**

Kay Willerton

BSE, Midwestern State University

**Computer Science, Business and Information Technology**

Lee Bollschweiler

MS, University of New Mexico

## **Curriculum Coordinators**

### **Applied Sciences**

Alphonse Forget  
Certificate, Northern New Mexico Community College

### **Business**

Mickey Marsee  
Ph.D., University of New Mexico

### **Computer Science/Network Administration**

Lynne Williams  
MS, Capella University

### **Developmental and General Studies**

Karen Meier  
BA, University of Missouri

### **Information Technology**

Tom Beach  
Ph.D., Iowa State University

### **Fine & Performing Arts**

Roger Sweet  
MFA, University of California–Irvine

### **Mathematics**

Kay Willerton  
BSE, Midwestern University

### **Science**

Leslie Dendy  
Ph.D., Rice University

## **Core Faculty**

Tom Beach, Ph.D., Iowa State University  
Lee Bollschweiler, MS, University of New Mexico  
Arsenio Cordova, MA, New Mexico Highlands University  
Leslie Dendy, Ph.D., Rice University  
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Mindy Turner, BFA, Rhode Island School of Design  
Kay Willerton, BSE, Midwestern State University  
Lynne Williams, MS, Capella University





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