

A Message from the Executive Director

On behalf of the staff and faculty, welcome to the University of New Mexico-Los Alamos! This is a great place to be.

At UNM-Los Alamos, we offer a variety of programs and services designed to make your educational experience rewarding and memorable. Our open admission policies, small student/teacher ratio, superb teaching staff and state-of-the-art facilities help us achieve this.

We also offer specialized programs that address the needs of our students and community members. These programs include New Beginnings, a program for the non-traditional returning student; College Cornerstone, a program for recent or returning students who need a little help getting to college level; and the Summer Bridge Program, for recent high school graduates who want to get a jump start on college. Our Adult Learning Center also offers Adult Basic Education courses and English as a Second Language, and our Community Education department offers a variety of personal enrichment courses.

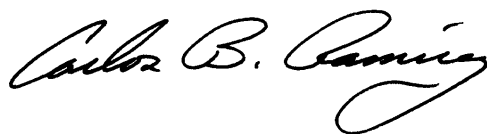
As a branch campus of the largest four-year university in the state, we are able to offer our students the same benefits as those who attend the main campus. All UNM libraries are accessible through the LIBROS system; core courses to start a four-year degree are offered, and affordable student housing is available.

Most importantly, UNM-Los Alamos students have a proven record of success. Students in our technical programs excelled in school as well as in the workforce. One example is our highly successful Electro-Mechanical Program, which began in 1997 with 10 students. Over 40 students have graduated from the program since then and 50 % of them are employed in technical fields at Los Alamos National Laboratory.

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

We welcome you as part of our campus and the community, and wish you great success. We hope that UNM-LA is the place where you start or complete your educational goals.

Sincerely,



Carlos B. Ramirez, Ph.D.

Executive Director



The University of New Mexico-Los Alamos 2002-2004 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 prohibit 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, New Mexico 87544
Web: www.la.unm.edu





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Academic Calendar Year

I-TEL-UNM Open 24 Hours A Day Except for Maintenance

2002 Fall Semester

Undergraduate application and credentials deadline.....	Friday, August 9
I-TEL-UNM Registration	April 22 - August 23
Instruction Begins.....	Monday, August 19
Registration Ends (last day to add courses or change sections).....	Friday, August 30
Late Registration (\$20 late fee)	August 19 - August 23
Labor Day Holiday.....	Monday, September 2
End of Fourth Week (last day to change grading options).....	Friday, September 13
End of sixth week (last day to drop a course without a grade).....	Friday, September 27
Columbus Day Holiday (100 & 200 level courses only)	Monday, October 14
Mid-Semester (eighth week).....	Friday, October 11
Fall Break (Upper Division and Graduate classes)	October 10-11
End of Twelfth Week (last day to withdraw without approval of Associate Director).....	Friday, November 8
Thanksgiving, Holiday.....	November 28-November 29
Withdrawal Deadline (last day to withdraw from a course with approval of Associate Director).....	Friday, December 6
Last Day of Instruction.....	Friday, December 6
Final Examination Period.....	December 9-13
Semester Ends.....	Friday, December 13

2003 Spring Semester

Undergraduate Application and Credentials Deadline.....	Friday, January 10
Martin Luther King Jr. Day (Holiday).....	Monday, January 20
Instruction Begins.....	Tuesday, January 21
Registration Ends (last day to add courses or change sections).....	Friday, January 31
Late Registration (\$20 late fee)	January 21 - January 24
End of Fourth Week (last day to change grading options).....	Friday, February 14
End of Sixth Week (last day to drop a course without a grade).....	Friday, February 28
Mid-Semester (eighth week).....	Saturday, March 15
Spring Break.....	to be announced
End of Twelfth Week (last day to withdraw without approval of Associate Director).....	Friday, April 18
Withdrawal Deadline (last day to withdraw from a course with approval of Associate Director).....	Friday, May 9
Last Day of Instruction.....	Saturday, May 10
Final Examination Period.....	May 10 - 17
Last Day for Report of Removal of Incomplete Grades.....	Friday, May 16
Commencement.....	Friday, May 16

Calendar dates are subject to change.

2003 Summer Session

Registration Begins.....	April 28 - June 8
Degree Application and Credentials Due.....	Friday, May 30
Instruction Begins	
8 Week.....	Monday, June 9
First 4 Week Term.....	Monday, June 9
Second 4 Week Term.....	Monday, July 7
Registration Ends (last day to add courses or change sections)	
8 Week.....	Friday, June 13
First 4 Week Term.....	Tuesday, June 10
Second 4 Week Term.....	Tuesday, July 8
Late Registration.....	June 9 - June 13
(\$20 late fee for those who have not applied or registered for any classes)	
Last day to change grading options	
8 Week.....	Friday, June 20
First 4 Week Term.....	Friday, June 13
Second 4 Week Term.....	Friday, June 11
Last day to drop a course without a grade	
8 Week.....	Friday, June 27
First 4 Week Term.....	Friday, June 20
Second 4 Week Term.....	Friday, July 18
Last day to withdraw from a course without approval of Associate Director	
8 Week.....	Friday, July 18
First 4 Week Term.....	Friday, June 27
Second 4 Week Term.....	Friday, July 25
Independence Day Holiday.....	Friday, July 4
Session Ends	
8 week.....	Saturday, August 2
First 4 week term.....	Saturday, July 5
Second 4 week term.....	Saturday, July 27

Course Schedules for Fall 2003, Spring 2004,
and Summer 2004, are available online at:
www.la.unm.edu

Calendar dates are subject to change.

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; and
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, Business and Technical Communications, 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 Business and Technical Communications, Business/Marketing, Computer Science, Digital Media Arts, Electro-Mechanical Technology, Environmental Science, Financial Accounting, Hospitality Administration/Management, Network Administration, Office Administration, Southwest Studies, Studio Art, Technical Support, and Web Technologies. A statement of completion is also available in Macintosh Training and the Child Development Associate Credential Preparation Program (CDA).

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 transi-

tion into college. Adult Basic Education and English as a Second Language 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 North Central Association of Colleges and Secondary 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). The SOAP Committee has identified overall student competencies to be attained by all students as a result of their educational experience at UNM-Los Alamos. More specific competencies at the course/program level and the assessment tools to measure such 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 downhill and cross-country skiing and ice skating at the local pond 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 teach-

ing, 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 Studies, Behavioral and Social Sciences, Communication, Fine Arts, Computer Science, Mathematics, Science, and Technology are responsible for the coordination of faculty and instructional issues within each curriculum area.

Two Division Heads, one for Arts and Social Sciences and one for Science and Technologies, 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 mid-semester 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 I) 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 I. 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-related



program with Los Alamos National Laboratory. Rates range from \$385-\$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.

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 Test.

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. The New Mexico State Department of Vocational and Adult Education funds this division.

Community Education

UNM-Los Alamos offers non-credit, short-term courses of an informational, educational enrichment, and recreational nature. A wide variety of courses are available for kindergarten through the adult level. A summer Children's College is also administered by Community Education. Children's College is a "campus day-camp" for first- through sixth-graders and emphasizes science, engineering, math and art. The UNM-Los Alamos Parenting Seminar provides information and training in parenting and early childhood through adolescent development. Contact hours (CEUs) are available for attendees. The Small Business Development Center and the Los Alamos Commerce and Development Corporation are part of a national and statewide network that provides training and counseling services for small and start-up businesses.

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 develop programs in areas such as computer skills, science and technology, quality management, business management, and OSHA regulations. Credit, non-credit, and certificate programs are available and are scheduled either on-site or at UNM-Los Alamos.

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 non-traditional 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.

Beginning Freshmen

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 an 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 Ser-

vices Office. You may also apply over the Web at 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 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

Beginning Freshmen Cont'd.

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 admissions decisions.



Other Admission Opportunities

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 Concurrent 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 recom-

mendation 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.

Concurrent 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 Concurrent 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 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 23 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 21 on the Math portion of the ACT or 490 on the quantitative portion of the SAT.

Concurrent Enrollment –VOTE Program

UNM-Los Alamos offers a concurrent 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 Concurrent Enrollment Application
- Completed Concurrent 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 concurrent 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.

Transferring Students

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.
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 acceptable 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 post-secondary 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-Los Alamos grade point average. This grade point average will reflect only classes taken at UNM-Los Alamos.

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.

Area I:	Communications	9 semester hours
(a)	College-Level English Composition	3-4 hrs.
(b)	College-Level Writing (a second course building on the above)	3 hrs.
(c)	Oral Communications	3 hrs.
Area II:	Mathematics and Statistics	9 semester hours
(a)	College Algebra	3 hrs.
(b)	Calculus	3 hrs.
(c)	Other College-Level Mathematics and Statistics	3 hrs.
Area III:	Laboratory Science	8 semester hours
(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.
Area IV:	Social/Behavioral Sciences	6-9 semester hours
(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.
Area V:	Humanities and Fine Arts	6-9 semester hours
(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.
Totals to be selected		35 semester hours

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:

Business Biological Sciences
Engineering Teacher Education

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. 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).

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 noncollegiate 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.)
Art			
Art Hi	3, 4	Art Hi 101	3
	5	Art Hi 201 & 202	6
Art St	3, 4, 5	Dept. Review**	—
Biology			
Biol	3, 4, 5	Biol 121L & 122L	8
Chemistry			
Chem	3	Chem 121L & 122L	8
	4, 5	Chem 131L & 132L	9
Computer Science			
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

Advanced Placement Exam

	Score	Equivalent UNM course	Credit Granted (sem. hrs.)
Economics			
Macro Econ	4, 5	Econ 105	3
Micro Econ	4, 5	Econ 106	3
English			
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
History			
Euro Hist	4	Sub. to Dept. Review**	—
	5	Hist 102 3	
Dept. Review**	—		
	5	Hist 161 & 162	6
Languages			
French Lang	3	French 101, 102, 201, 202	1 2
	4	French 101, 102, 201, 202, 301 1 5	
	5	French 101, 102, 201, 202, 301, 302	1 8

(continued on page 16)

Advanced Placement Exam

	Score	Equivalent UNM course	Credit Granted (sem. hrs.)
French Lit	3	French 101, 102, 201, 202	1 2
	4	French 101, 102, 201, 202, 351	1 5
	5	French 101, 102, 201, 202, 351, 352	1 8
German Lang	3, 4, 5	German 101, 102	6
	3	Latin 101, 102	6
Latin	4, 5	Latin 101, 102, 201, 202	1 2
	3	Span 101, 102	6
Span Lang	4, 5	Span 101, 102, 201, 202	1 2
	4	Span 302 3	6
Span Lit	5	Span 301, 302	6

Math

Calc AB	3, 4, 5	Math 162L	4
Calc BC	3, 4, 5	Math 162L & 163L	8
Statistics	4, 5	Stat 145	3

Physics

Physc B	3	Dept. Review**	—
	4, 5	Physc 151L, 152L	8
Physc C	3	Dept. Review**	—
	4, 5	Physc 161L, 262L*	8
Mech	3	Dept. Review	—
	4, 5	Physc 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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Statistics

Stat	4, 5	Stat 145	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 Gen. Exam	Scores Paper	CBT	UNM Course	Sem Hours	Year Taken
Engl Comp	5 0 0	—	Gen Credit	6	Prior to 1978
Engl Comp	6 1 0	—	Gen Credit	6	1978 to 1985
Engl Comp	5 0 0	5 0	Gen Credit	6	1986-present
Engl Comp	5 0 0	5 0	Engl 101	3	
With essay (given only in January, April and October)					
Social Sci & Hist	5 0 0	5 0	Gen Credit	6	
Natural Sci	5 0 0	5 0	Gen Credit	6	
Humanities	5 0 0	5 0	Gen Credit	6	
College Math	5 7 0	5 7	Gen Credit	6	

CLEP Subject Examinations

CLEP Subject Exam	Scores Paper	C B T	Equivalent UNM Course	Sem. Hrs.
Biology	4 5	5 0	Biol 110	3
Chemistry	5 2	6 3	Chem 121L,122L	8
Intro Macroecon	4 9	5 4	Econ 105	3
Intro Microecon	4 7	5 4	Econ 106	3
Western Civ I	5 0	5 5	Hist 101	3
Western Civ II	5 0	5 5	Hist 102	3
Amer Govt	5 5	6 5	Pol Sc 200	3
Human Growth & Develop	5 2	6 3	Psych 220	3
Princ of Mgt	5 0	5 4	Mgt 113	3
Princ of Acct	5 0	5 4	Mgt 202	3
Princ of Mkt	5 0	5 0	Mgt 222	3
Coll Alg	5 6	5 9	Math 121	3
Trig	6 1	6 5	Math 123	2
Calculus	5 1	7 0	Math 162L	4
French Language	4 0	4 8	French 101	3
French Language	4 5	5 2	French 101, 102	6
German Language	3 9	6 3	German 101, 102	6
Spanish Language	3 9	4 5	Span 101	3
Spanish Language	4 4	5 0	Span 101, 102	6
Spanish Language	5 4	5 7	Span 101, 102, 201, 202	1 2
Introductory Soc	5 2	5 9	Soc 101	3
Introductory Psych	5 5	5 6	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.

Concurrent 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. 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.

International Baccalaureate

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.

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/.

Non-Degree Credit Program

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.

Non-Degree Credit Program cont'd.

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 \$10.00 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.

Dean's List/Honor Roll

In recognition of academic excellence, selected Non-Degree students are named to the Dean's List and Honor Roll each semester. The criteria for these honors are as follows:

Dean's List: Students must complete at least 12 semester hours with at least a 3.25 semester grade point average. These students must also have at least 12 cumulative earned hours with a 3.0 cumulative grade point average.

Honor Roll: Students must complete 6–11 semester hours with at least a 3.5 semester grade point average. These students must also have at least 12 cumulative earned hours with a 3.0 cumulative grade point average.

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

International Students

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 leaving 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 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 \$21,700 U.S. dollars is required (based on 1999–2000 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--May 1
	Spring Semester--October 1
	Summer Session--March 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; (All records and supporting documents must be official. If only one original is available, an attested or certified copy may be submitted. If the original document is not in English, the packet must include a certified, literal English translation.)

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: Registrar, UNM-Los Alamos
Student Services Department
4000 University Drive
Los Alamos, NM 87544 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.

THE UNDERGRADUATE PROGRAM

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. This 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 Core Curriculum that 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. However, the University recognizes that the highly structured nature of many degree programs and the presence of numerous transfer and non-traditional students requires flexibility on its part and the substitution of other courses for Core requirements will be allowed on a case-by-case basis. Transfer and reentering students will receive advising in the college and department to which they are admitted in order to establish an appropriate program that will meet their needs and the aims of the Core. Approval of exceptions is handled on a departmental and college basis. Except as noted below, 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.
 - ◆ The basic program requires approximately 37 hours of courses in seven areas of study.
1. Writing and Speaking (9 hours): English 101-102 and an additional course chosen from English 219, 220; Communication and Journalism 130; Philosophy 156.
 2. Mathematics: One course chosen from Math 121, 150, 162L, 163L, 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 110 and 112L, 121L, 122L, 123L; 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.

Graduation Requirements

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. 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.
4. The student must have a minimum cumulative grade point average of 2.0.
5. 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.
6. A maximum of 24 semester hours of pass/fail (CR/NC) grading option courses may be applied toward a bachelor degree.
7. 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.
8. Students must contact their college office prior to their last semester in order to initiate and complete the graduation process.
9. 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 these requirements.

10. 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.

11. Once a student has completed academic requirements for a baccalaureate degree 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-vocational 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 hours 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 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-vocational 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 above the requirements for the first certificate or degree and fulfilled all requirements for the second certificate or degree including residence requirements.

Cooperative Education

The Cooperative Education and Internship program provides UNM-Los Alamos students from various academic disciplines with an oppor-

tunity 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.

Extension and Independent Study

UNM-Los Alamos allows credit for independent study, correspondence and extension courses at The University of New Mexico or through other fully accredited colleges and universities toward degree requirements.

Credit for extension and independent study courses completed at institutions not accredited by regional accrediting associations is not accepted for transfer, although a student who has completed such correspondence or extension work in a course comparable to one at The University of New Mexico may establish credit here by special examination (see *Examinations*).

The hours earned by independent study or extension from accredited institutions other than The University of New Mexico may be counted toward degree requirements, but the grades will not be included in the student's grade point average (see *Grade Point Average*). Courses taken from other institutions must correspond to those offered at The University of New Mexico.

Any graduating senior not in residence who expects to substitute credits earned by independent study toward fulfillment of degree requirements must have prior approval of his or her college's dean. The student is responsible for complying with all regulations stated in the current Independent Study Bulletin.

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.

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 re-enrollment.

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, Telephone (505) 277-5321.

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

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

I. The right to inspect and review the student's education records within 45 days of the day the University receives a request for access.

Students should submit to the registrar, dean, head of the academic department or other appropriate official, written requests that identify the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.

Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed and specify why it is inaccurate or misleading.

If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment.

Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor or collection agent); a person serving on the Board of Regents; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by The University of New Mexico to comply with the requirements of FERPA.

The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-4605

At UNM-Los Alamos directory information, as outlined below, may be released without the student's written consent unless the student has requested that directory information be withheld. Directory information includes: *student's name, address, e-mail address, telephone listing, date of birth, major field of study (current classification, year, credit load and number of academic units earned toward degree), dates of attendance, degrees and awards received, most recent previous educational agency or institutions attended by student and participation in officially recognized activities and sports, plus weight and height of members of athletic teams.*

Students who wish to have "directory information" withheld may submit a written request for such status to the Registrar, Student Services Office, 4000 University Drive, Los Alamos, NM 87544. Such requests must be made by the end of late registration for the fall semester and remain in effect until withdrawn in writing by the student.

A copy of The University of New Mexico Student Records Policy is available in the Student Services Office, lower level of Building 2.

Change of Name

Students who need to process a change of name for their academic records must bring appropriate documentation (at least two types of identification showing the new name) to the Student Services Office. Examples of such documentation are: marriage certificate, birth certificate or court order for legal name change. Name changes will be processed only for currently enrolled students.

Transcripts

The Student Services Office issues advisement copies of UNM-Los Alamos student records and the UNM Records and Registration Office issues official copies of student records. A student may request a transcript of their academic record either at the Student Services Office 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 UNM-Los Alamos), 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 is charged for all official transcripts.

Transcripts from other institutions that are sent to UNM-Los Alamos for purposes of admission are not copied or returned to the student.

Transcript Holds

No official transcript at the University will be released until the student's outstanding financial obligations to the University have been paid or until satisfactory arrangements have been made. These obligations include, but are not limited to, loans, such as the New Mexico Student Loan Program, library fines, tuition and fees and other charges. All financial arrangements are handled in the Cashier's Office, (505) 661-4681. Transcripts may also be held for non-financial reasons such as incomplete admission status.

Grade Notification

Students can access semester grades via I-TEL-UNM or <http://itel.unm.edu>. If a hard copy is required, it can be obtained via the I-TEL machines located in the lobby of the Student Services Office or via any computer with Internet access.

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 Student Services Office, lower level Building 2.

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

Introductory Studies courses or "T" courses to satisfy any of

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.

NOTE: A student cannot begin to complete the 12-month requirement until his or her 18th birthday.

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 that support the student’s declaration of “intent” to become a permanent resident. The required overt acts are:

1. Securing a New Mexico driver’s license.
2. Securing a New Mexico automobile registration.
3. Registering to vote in New Mexico.
4. Filing a New Mexico state tax return for the previous year.
5. Securing employment in the state.
6. Purchasing residential or business property in the state.
7. Having a long-established bank account.

The student must meet the requirements of all of the overt acts listed in this section unless they can sufficiently demonstrate why they are unable to do so. In instances such as these, the institution will afford the student an opportunity to provide other documentary evidence or reasonable explanation which demonstrates that permanent residency in New Mexico have been established by the student.

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, members of the New Mexico National Guard, their spouses and dependents are eligible for waivers for non-resident tuition. A form must be submitted to obtain this waiver.

According to UNM-Los Alamos’ tuition policy:

Students enrolling for *6 hours or fewer* 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 Student Services Office, lower level Building 2. For more information please call (505) 662-0332.

Registration

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.

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 card is valid upon admission to the University; it is issued once and is active upon a student’s enrollment. The Lobo Card remains valid for the duration of a student’s college career. It activates and deactivates according to enrollment status. The identification card has no expiration date. You may obtain your identification card at the Lobo Card office. Proper photo identification (driver’s license, passport or other state issue identification) is required.
2. Lobo Cards are issued with the name and student identification number appearing on the latest student listing for the current session.
3. Updating of name or student identification information requires the reporting of the change to the Records and Registration Office prior to Lobo Card re-issuance.
4. Lost or stolen Lobo Cards must be reported as soon as possible to the Student Services Office in the lower level of Building 2.
 - a. A non-refundable, non-waiverable replacement fee of \$10.00 will be collected at the Cashier’s Office in Building 1. The receipt for the replacement must be presented at the Student Services Office in order to obtain a replacement card.
 - 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. If a lost card is found before the replacement is issued, the returned Lobo Card may be picked up at the Student Services Office.
 - 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 discipline and/or criminal charges.
5. 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 both to student disciplinary proceedings or to 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 Dean of Continuing Education and Community Services 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.

UNM-Los Alamos 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. UNM-Los Alamos 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. 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*. The following information refers to 16-week courses.

◆ **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 members 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 Student 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 recorded on University records. 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.

◆ **Addition of Independent Study or Extension Courses to Program.** A resident student may enroll for independent study and extension courses only when the addition of such courses does not cause their program to be over the maximum load allowed and only after approval has been given by the Associate Director of Instruction.

◆ **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.

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 I-TEL-UNM (246-2020) or at <http://itel.unm.edu> and selecting the withdrawal option. Students may contact the Student Services Office, (505) 662-0332 for advisement on withdrawing from all courses.
- ◆ 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.

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 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 problems (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 for specific regulations.

Grades

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

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

Grade Options

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.

PR/Progress. This grade is used to indicate that a thesis or dissertation is in progress but not complete. In the semester when the thesis or dissertation is complete, CR or NC is reported.

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.

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

1. A student may register in a course for audit, provided written permission of the instructor is obtained. 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.
2. Instructor permission is required prior to registering in a course for an audit. See current *Schedule of Classes* for deadlines.
3. 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-Los Alamos 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-Los Alamos 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-Los Alamos 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.
6. Once a grade replacement has been approved, the process cannot be reversed or changed.
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

According to academic policy, no "I" grade can be outstanding for a student who is graduating from UNM-Los Alamos.

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 reregister (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).**

Therefore, students resolving Incompletes in their semester of graduation must have the process completed (including the reporting of the grade to the Student Services Office) by that date. Students are responsible for informing instructors that they are graduating and that the resolved 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.

Students are responsible for making arrangements with the instructor for resolving an Incomplete grade. Students must complete work prescribed by the instructor in sufficient time for the resolved grade to be reported to the Student Services Office by the appropriate deadlines described above.

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-Los Alamos 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 gradewas 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 Policy

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 readmission.

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.

Academic Renewal Guidelines

NOTE: Readmission to the University and acceptance in a degree program must occur prior to 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 the effect of Academic Renewal.
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.
5. All graduation requirements must be satisfied after Academic Renewal, i.e., minimum earned credit, residence credit requirement, cumulative grade point average, etc.

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

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. The degree-granting unit will determine acceptability of these credits towards a degree.
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.
10. Non-degree, second undergraduate degree or graduate students are not eligible for Academic Renewal.

General Academic Regulations

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 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.

Attendance

Policies regarding student attendance at class meetings are set by each instructor.

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 requested drops are submitted to the Student Services Office by the instructor.

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 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 Colleges 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.

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 Half-time 6 hours
Graduate Students	Full-time 9 hours Half-time 5 hours

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.

Student Employment

Students seeking part-time employment while attending UNM-Los Alamos may apply for a work-study position. Stop by Student Services 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 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 students' current mailing address.

Student Services

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 trans-

fer-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>.

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

CERTIFICATES

- Business and Technical Communications
- 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 Administration
- Southwest Studies
- Studio Art
- Technical Support
- Web Technologies

Statement of Completion:

- Macintosh Training
- Child Development Associate
Credential Preparation Program (CDA)

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 2001-2003 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 below. 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 more information.

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 degree-granting college.

Pre-Professional Course Work

For students seeking career in the health sciences (i.e., nursing, pharmacy, physical/occupational therapy), UNM-Los Alamos 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 eight general headings:

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

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.

* Area not included in UNM Core Curriculum.

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-Engl 010T, IS-Engl 100) are accepted toward the number of credit hours required for graduation.

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

Note: UNM bachelor degree programs require a 2.0 (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 cumulative grade point average of 2.0.

At least 15 of 64 credit hours must be UNM-Los Alamos 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 [Math 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 121L: Principles of Biology (4)

Biol 122L: Principles of Biology (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 to 1877 (3)

Hist 162: History of the United States since 1877 (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 105: Child Growth and Development (3)

ECME 106: Observation of Young Children (1)

ECME 107: Learning Environments I for the Early Childhood(3)

ECME 108: Early Childhood Practicum I (2)

ECME 109: Learning Environments II (3)

ECME 110: Early Childhood Practicum II (2)

ECME 113: Guidance of the Young Child (3)

ECME 119: Emerging Literacy (3)

ECME 203: Introduction to the Early Childhood Professions (4)

ECME 205: Individual and Family Diversity (3)

ECME 207: Diversity in Early Childhood Program Assessment (2)

NOTE: Courses designated with a 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 Early Childhood Multicultural Education certificate is designed for individuals who wish to work in the field and/or pursue an associate of arts in ECME or baccalaureate degree. A minimum cumulative grade point average of 2.0 is required in all courses.

Engl 101: Composition I: Exposition (3)
Stat 145 [Math 145]: Introduction to Statistics (3)
ECME 105: Child Growth and Development (3)
ECME 106: Observation of Young Children (1)
ECME 107: Learning Environment I (3)
ECME 108: Early Childhood Practicum I (2)
ECME 109: Learning Environments II (3)
ECME 110: Early Childhood Practicum II (2)
ECME 113: Guidance of the Young Child (3)
ECME 119: Emerging Literacy (3)

ECME 203: Introduction to the Early Childhood Professions (4)

Select two of the following:

Hist 260: History of New Mexico (3)
Soc 101: Introduction to Sociology (3)
Art Hi 101: Introduction to Art (3)
Mus Ed 298: Music for Elementary Teachers (3)
Anth 238: Cultures of the Southwest (3)
Gen St 193: Topics: CDA Preparation (3)

Total credit hours = 36

Child Development Associate Credential Preparation Program (CDA)

About the Program

This preparation program is intended for persons currently working or intending to work with children from birth to six years of age in early childhood settings such as Head Start programs, child care centers, family child care homes, as teacher assistants in private and public preschools, or as home visitors. The program prepares students for the national Child Development Associate (CDA) credential assessment under the direct assessment procedures administered by the Council for Early Childhood Professional Recognition. (Students must apply for assessment through direct assessment route.) The CDA credential, plus experience, meets the requirements for qualifying as a director of a child care center as specified in the New Mexico Child Care Facilities Regulations requirements.

ECME 105: Child Growth and Development (3)
ECME 106: Observing Young Children (1)
ECME 107: Learning Environments I (3)
ECME 108: Early Childhood Practicum I (2)
Gen St 193T: Topics: CDA Preparation Course (3)
EDUC 293: Topics: Curriculum Resource File (3)

Total credit hours = 15

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 cumulative grade point average of 2.0.**

At least 15 of these 66 hours must be UNM-Los Alamos 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)

M A 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 (3 credit hours)**

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 the 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)**

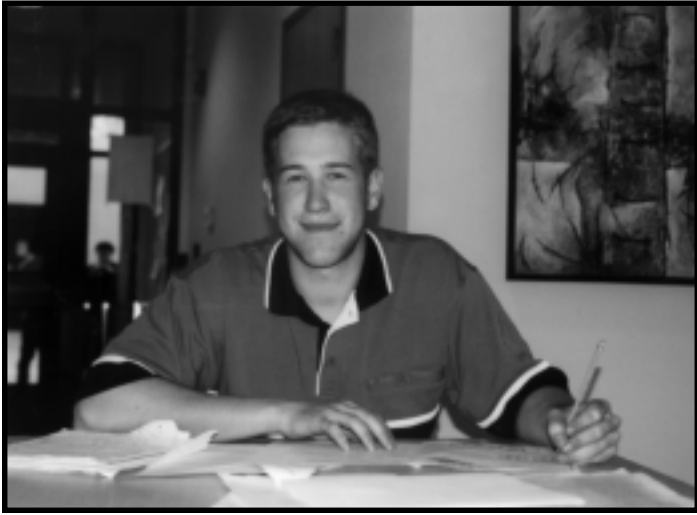
Select one course from any of the 100- or 200-level non-English language offerings as specified in the UNM Core Curriculum Foreign Language.

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

Must complete 22-23 credit hours of academic electives numbered 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 a 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 the 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; and
- the student is eligible to enroll at the UNM Albuquerque Campus.

Specific Requirements

- 1. A minimum of 65 credit hours with a minimum cumulative grade point average of 2.5 in the UNM/ASM Core Curriculum areas.**

At least 15 of these 65 hours must be UNM-Los Alamos 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 119: Algebra (4)

or

Math 120: Intermediate Algebra (3)

and

Math 106: Problems in Intermediate Algebra (1)

or

Math 150: Pre-Calculus Mathematics (3) and either

Math 162: Calculus I (4)

or

Math 180: Elements of Calculus I (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 112L: Physics Laboratory (1)

Physcs 160: General Physics (3)

Physcs 160L [163L]: General Physics Laboratory (1)

Biol 110: Biology for Non-Majors (3)

Biol 112L: Biology Laboratory for Non-Majors (1)

Biol 121L: Principles of Biology (4)

Biol 122L: Principles of 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 courses from: Anthropology, Economics, Geography, History, Political Science, Psychology, Sociology

Associate of Arts in Pre-Business Administration cont.'d

6. Humanities (6 credit hours)

Select from the following:

Am St 186: Introduction to Race, Class & Ethnicity (3)

Classics 107: Greek Mythology (3)

Classics 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)

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)

C S 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 (7-8 credit hours)

May include:

Mgt 113: Management: An Introduction (3)

Stat 145 [Math 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 and must meet the UNM/ASM Core Curriculum Requirements. These Core Curriculum Requirements are listed on page 31 of the UNM 2001-2003 Catalog.

NOTE: Courses designated with a 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 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 cumulative grade point average of 2.0.**

At least 15 of these 67 hours must be UNM-Los Alamos 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 125: Communication Across Cultures (3)

Phil 156: Reasoning and Critical Thinking (3)

3. **Mathematics (3 credit hours)**

Math 121: College Algebra or higher (3)

or

Stat 145 [Math 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 121L: Principles of Biology (4)

Biol 122L: Principles of Biology (4)

E&PS 101/105: 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 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)

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)**

Libr 290: Introduction to Research Strategies (topic must have Southwest emphasis) (3)

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

Associate of Arts in Southwest Studies cont.'d

Southwest Studies continued

Choose one course 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-Los Alamos Associate of Arts in Pre-Business Administration Division Head

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

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.

The Southwest Collection

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

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)

Libr 290: Introduction to Research Strategies (3)
(Research topic must have Southwestern emphasis)

Math 121 or higher (3)

or

Stat 145 [Math 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 121L: Principles of Biology (4)

Biol 122L: Principles of Biology (4)

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

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

Span 101: Elementary Spanish (3)

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

Choose 3 additional hours of coursework 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 125: Communication Across Cultures (3)

Total credit hours = 34

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 the 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 a 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 cumulative grade point average of 2.5.

At least 15 of these 66 hours must be UNM-Los Alamos 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)

Stat 145 [Math 145]: Introduction Statistics (3)

or

Math 150: Pre-Calculus Mathematics (3)

or higher level

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: Portfolio Preparation and Presentation (1)

10. Art Studio Elective courses (12 credit hours)

Select two from group A:

* 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 274: Introduction to Printmaking (3)

Art St 287: Black and White Photography (3)

Art St 288: Introduction to Color Photography (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 the UNM Albuquerque Campus, and will not be accepted toward 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.

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 elective (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 274, Art St 287, Art St 288

Engl 101: Composition I: Exposition (3)

Hist 101: Western Civilization (3)

Total credit hours = 36



Associate of Science 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.

Specific Requirements

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

At least 15 of these 67 hours must be UNM-Los Alamos 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 [Math 145]: Introduction to Statistics (3)

Math 162: Calculus I (4)

Math 163: Calculus II (4)

4. **Physical/Biological Science (26 credit hours)**

Biol 121L: Principles of Biology (4)

Chem 121L: General Chemistry (4)

Chem 122L: General Chemistry (4)

Chem 253L: Quantitative Analysis (4)

Physcs 160: General Physics (3)

Physcs 160L [163L]: 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 130T: Introduction to Environmental Science I (3)

Engr-F 131T: 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 or Computer 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 the UNM Albuquerque Campus, and will not be accepted toward a degree.

Certificate in Environmental Science

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's degree in other fields.

Chem 121L: General Chemistry (4)

Chem 122L: General Chemistry (4)

Engl 101: Composition I: Exposition (3)

Engr-F 130T: Introduction to Environmental Science I (3)

Engr-F 131T: 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 (2)

Math 150: Pre-Calculus Mathematics (3)

Physcs 102: Introduction to Physics (3)

or

Physcs 160: General Physics (3)

Total credit hours = 31

Associate of Science in Pre-Engineering

About the Program

This program represents the course work for the first two years of the bachelor's degree at the 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 67 credit hours with a minimum cumulative grade point average of 2.0.**

At least 15 of these 67 hours must be UNM-Los Alamos 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 (3)

ME 101L: Introduction to Engineering Methods (3)

C E 202: Engineering Statics (3)

EECE 203: Circuit Analysis I (3)

- 4. Physical/Biological Science (22 credit hours)**

Chem 121L: General Chemistry (4)

Chem 122L: General Chemistry (4)

Physcs 160: General Physics (3)

Physcs 160L [163L]: 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)

Physcs 262: General Physics (3)

Physcs 262L: General Physics Laboratory (1)

Physcs 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 Science (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 the UNM Albuquerque Campus, and will not be accepted toward a 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 cumulative grade point average of 2.0.**
At least 15 of these 67 hours must be UNM-Los Alamos 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 121L: Principles of Biology (4)
Biol 122L: Principles of Biology (4)
Chem 121L: General Chemistry (4)
Chem 122L: General Chemistry (4)
Physcs 160: General Physics (3)
Physcs 160L [163L] : General Physics Laboratory (1)
Physcs 161: General Physics (3)
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 Laboratory (1)
Physcs 267 [264L] : 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 (3)

- 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 the UNM Albuquerque Campus, and will not be accepted toward a 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 cumulative grade point average of 2.0.**

At least 15 of these 66 hours must be UNM-Los Alamos 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)**

Math 119: Algebra (4) OR

Math 120: Intermediate Algebra (3) AND

Math 106: Problems in Intermediate Algebra (1)

or higher level

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)**

C T 102LT: Introduction to Microcomputers on the PC (4) OR

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

8. **Electives/Cooperative Work Phases (6 credit hours)**

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

Electives (3-5)

Students must complete Bus-Tc 112T: Keyboarding II

(2) or demonstrate equivalent competency before

entering program.

NOTE: Courses designated with a 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 a 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 & Marketing (3)

Bus-Tc 264T: Word Processing I (3)

Bus-Tc 274T: Word Processing II (3)

CT102: Intro to Microcomputers on the PC (4) OR

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

Mgt 113: Management: An Introduction (3)

Mgt 222: Introduction to Marketing (3) or

Mgt 233T: Principles of Marketing Management (3)

Mgt 234T: Personnel Management (3)

Total credit hours = 33

Associate of Applied Science in Business and Technical Communications

About the Program

This program is designed to give students the writing and editing skills and the technical background necessary for careers in the field of technical communication. The range of computer and technical electives permits students to coordinate their communications skills with training in a variety of technical areas. The program also prepares students to pursue an advanced degree in Technical and/or Professional Communications.

Specific Requirements

- 1. A minimum of 65 credit hours with a minimum cumulative grade point average of 2.0; in the Writing and Speaking area, a minimum cumulative grade average of 2.5 is required.**

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

- 2. Writing and Speaking (33 credit hours)**

Engl 101: Composition I: Exposition (3)
Engl 102: Composition II: Analysis & Argument (3)
Engl 119T: Technical Communications (3)
Engl 217T: Editing (3)
Engl 219: Technical Writing (3)
Engl 290: Introduction to Professional Writing (3)

Select 9 hours from the following:

Engl 240: Traditional Grammar (3)
Engl 245T: Grant and Proposal Writing (3)
Engl 246T: Public Relations Writing (3)
Engl 298: Workshop in Literature or Writing (1-3)

Select 9 hours from the following:

C & J 101: Introduction to Communications (3)
C & J 130: Public Speaking (3)
C & J 151: Writing for Mass Media (3)
C & J 225: Small Group Communications (3)
C & J 232: Business and Professional Speaking (3)

- 3. Computer Technology or Information Technology (9 credit hours)**

CT 109LT: Desktop Publishing on the Macintosh (1)
or
CT 203LT: Introduction to Desktop Publishing (3)

Select from the following:

CT 103LT: Introduction to Spreadsheets (1)
CT 110LT: Introduction to Multimedia (2)
IT 145LT: Web Design Fundamentals: HTML and Style Sheets (3)
CT 193LT: Topics: Writing and Designing Brochures (2)
CT 202LT: Applications of Spreadsheets (3)

- 4. Mathematics and Statistics (4 credit hours)**

Math 119: Algebra (4)

or

Math 120: Intermediate Algebra (3)

and

Math 106: Problems in Intermediate Algebra (1)

- 5. Social Sciences (6 credit hours)**

Select from the following:

Econ 105: Introductory Macroeconomics (3)
Econ 106: Introductory Microeconomics (3)
Psych 105: General Psychology (3)
Soc 101: Introduction to Sociology (3)

- 6. General Electives (12 credit hours)**

Select 12 hours from one of the following areas, (subject to departmental approval):

Business Technology
Computer Technology
Information Technology
Digital Media Arts
Natural and Physical Sciences
Computer Science
Electronics Technology
Environmental Science
Foreign Languages

- 7. Arts and Sciences AS COP 105 (1- 3 credit hours)**

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

Prerequisite: third or fourth semester standing and approval from the Cooperative Education Coordinator.

NOTE: Courses designated with a 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 a degree.

Certificate in Business and Technical Communications

This certificate program provides students the writing and editing skills, verbal communication skills, and computer application skills necessary to write in small businesses, corporations, and government settings. Students completing this certificate will have the fundamental competency to write, proofread, and computer design professional documents. 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 Communications (3)
Engl 101: Composition I: Exposition (3)
Engl 119T: Technical Communications (3)
Engl 240: Traditional Grammar (3)
Engl 293T: Topics: Grant and Proposal Writing (3)
or
Engl 298: Workshop in Literature or Writing (1-3)

C & J 130: Public Speaking (3)
C & J 225: Small Group Communications (3)
CT 103LT: Introduction to Spreadsheets (1)
CT 109T: Desktop Publishing on the Macintosh (3)
or
CT 203LT: Introduction to Desktop Publishing (3)
CT 193LT: Topics: Writing and Designing
Brochures (2)

Total credit hours = 30



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: A BS and CS is offered at UNM-Los Alamos through the Upper Division Office and students may earn an AAS in CS while working towards this 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 the 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 cumulative grade point average of 2.0.

At least 15 of these 65 hours must be UNM-Los Alamos 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 151L: Computer Programming Fundamentals [in C++] (3)

CS 201: Mathematical Foundations of Computing Science (3)

CS 251L: Intermediate Programming [Introduction to Data Structures] (3)

CS 220LT: Systems Analysis and Design (3)

CS 257L: Nonimperative Programming (3)

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

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

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

Select one of the following:

CS 160LT: Introduction to JAVA (3)

CS 170LT: Introduction to Visual Basic (3)

CS 180LT: Introduction to PERL (3)

4. Electrical & Computer Engineering Computer Science (1-4 credit hours)

EECE 238L: Computer Logic Design (4)

or

CS 138LT: Introduction to Computer Hardware (1)

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.

Associate of Applied Science in Computer Science Cont'd.

7. Electives (14 credit hours)

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

- * Any CS course not required for the CS degree may be used as a technical elective, including CS Topics courses. Suggestions: CS 103LT, CS 160LT, CS 170LT, CS 236LT, CS 238LT, CS 239LT, CS 293L.
- * 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, IT 132LT, 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 the UNM Albuquerque Campus, and may not be accepted toward a 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: (27 credit hours)

CS 138LT: Introduction to Computer Hardware (1)

CS 151L: Computer Programming Fundamentals [in C++] (3)

CS 201 [154]: Mathematical Foundations of Computing Science (3)

CS 220LT: Systems Analysis & Design (3)

CS 251L: Intermediate Programming [Introduction to Data Structures] (3)

CS 257L: Nonimperative Programming (3)

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

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

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

Engl 101: Composition I: Exposition (3)

Select one of the following:

CS 160LT: Introduction to JAVA (3)

CS 170LT: Introduction to Visual Basic (3)

CS 180LT: Introduction to PERL (3)

Technical Electives: (3 credit hours)

Choose from one of the following:

CS 236LT: Introduction to FORTRAN 95 Programming (3)

CS 239LT: Computer Graphics Applications Programming (3)

CS 160LT: Introduction to JAVA (3)

CS 170LT: Introduction to Visual Basic (3)

CS 180LT: Introduction to PERL (3)

Total credit hours = 30

Associate of Applied Science in Digital Media Arts

About the Program

This degree program instructs the student in Graphics, Animation & 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 cumulative grade point average of 2.0. Minimum grade of C (not C-) in each Core Course.**

At least 15 of these 65 hours must be UNM-Los Alamos 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.

- 2. 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)

- 3. Core Courses (28-30 credit hours)**

CT 105LT: Introduction to Macintosh (1)

or

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

CT 165LT: Introduction to Web Authoring (GoLive) (3)

CT 203LT: Introduction to DeskTop Publishing (3)

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 240LT: Web Audio/Video (3)

DMA 250LT: Web Animation (Flash) (3)

DMA 260LT: Interactive Multimedia Design (Director/Flash/Shockwave) (3)

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

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

Math 150: Pre-Calculus Mathematics (3)

or

Stat 145 [Math 145]: Introduction to Statistics (3)

- 5. Physical/Natural Science (4 credit hours)**

Select from the following:

Biol 110/112L, Biol 121L, Biol 122L, Chem 111L,

Chem 121L, Chem 122L, Astr 101/101L,

Physcs 102/102L [112L], Physcs 160/160L [163L], E&PS

101/105L, NS 261L, NS 262L, NS 263L

- 6. Social/Behavioral Science (3 credit hours)**

Select from the following:

Anth 130, Econ 105, Econ 106, Pol Sc 200, Psych 105, Soc 101, Soc 211

- 7. 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)

- 8. Suggested Technical Electives (7-9 credit hours)**

Select from the following:

Art St 122, Art St 187, Art St 274, CT 111LT, CT

119LT, DMA 270LT, IT 147LT, IT 149LT, IT 150LT,

IT 240LT, IT 242LT, IT 244LT, IT 246LT

NOTE: Courses designated with a suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to UNM Main Campus, and may not be accepted toward a 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)

CT 165LT: Introduction to Web Authoring (GoLive) (3)

CT 203LT: Introduction to Desktop Publishing (3)

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 240LT: Web Audio/Video (3)

DMA 250LT: Web Animation (Flash) (3)

DMA 260LT: Interactive Multimedia Design (Director/Flash/Shockwave) (3)

Engl 101: Composition I: Exposition (3)

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

Total credit hours = 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 cumulative grade point average of 2.0.**

At least 15 of these 64 hours must be UNM-Los Alamos 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 (9 credit hours)**

Math 119: Algebra (4)

or

Math 120: Intermediate Algebra (3)

and

Math 106: Problems in Intermediate Algebra (1)

Math 123: Trigonometry (2)

Math 150: Pre-Calculus Mathematics (3)

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

Chem 111L: Elements of General Chemistry (4)

Physcs 102: Introduction to Physics (3)

Physcs 102L [112L] : Physics Laboratory (1)

5. **Technical Core Requirements (20 - 22 credit hours)**

Draft 101LT: Introduction to Drafting (3)

Draft 119LT: Drafting/Blueprint Reading (3)

Elect T 192T: Introduction to Electronics (1)

Elect T 110LT: Measurements Lab (1)

Elect T 112LT: RF/Power Lab (1)

Elect T 114LT: Vacuum Systems Lab (1)

Elect T 116LT: Fabrications Lab (1)

Elect T 118LT: Technical Skills Laboratory (1)

Elect T 119LT: Electronics Lab II (2)

Elect T 120LT: Electro-Mechanical Devices (4)

Elect T 296T: Co-Operative Practicum I, II, or III (1-3)

ME 273L: Engineering Shop Practice (1)

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

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

CT 111LT: Introduction to Computer Aided Drafting and Design (0)

C T 142LT: Introduction to Internet on Macintosh (1)

7. **Technical Electives (15 - 17 credit hours)**

Select from the following:

C T 103LT: Introduction to Spreadsheets (1)

C T 104LT: Introduction to Relational Databases (1)

C T 105LT: Introduction to the Macintosh (1)

C T 106LT: Microsoft Word on the Macintosh (1)

C T 119T: Intermediate Computer-Aided Drafting and Design (3)

C T 119LT: Intermediate Computer-Aided Drafting and Design Lab (0)

CT 121LT: Introduction to Appleworks (ClarisWorks) (1)

Elect T 101LT: DC Circuit Analysis (4)

Elect T 102LT: AC Circuit Analysis (4)

Elect T 137LT: Digital Electronics I (Combinational Logic) (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 the UNM Albuquerque Campus, and will not be accepted toward a 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's degree in this or another field.

Chem 111L: Elements of Chemistry (4)	Elect T 116LT: Fabrications Lab (1)
CT 103LT: Introduction to Spreadsheets (1)	Elect T 192T: Topics: Introduction to Electronics (1)
or	Engl 101: Composition I: Exposition (3)
CT 104LT: Introduction to Rational Databases (1)	M E 273L: Engineering Shop Practice (1)
or	Math 119: Algebra (4)
CT 170LT: Introduction to Internet (1)	or
CT 111LT: Introduction to Computer Aided Design and Drafting (3)	Math 120: Intermediate Algebra (3)
Draft 101LT: Introduction to Drafting (3)	and
Draft 119LT: Drafting & Blueprint Reading (3)	Math 106: Problems in Intermediate Algebra (1)
Elect T 110LT: Measurements Lab (1)	Math 123: Trigonometry (2)
Elect T 112LT: RF/Power Lab (1)	Physcs 102: Introduction to Physics (3)
Elect T 114LT: Vacuum Systems Lab (1)	Physcs 102L [112L]: Physics Laboratory (1)

Total credit hours = 33

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 the Core Courses.

Core Requirements (39-42 credit hours)	MST 101T: Introduction to Materials Science Technology I (3)
Engl 101: Composition I: Exposition (3)	MST 102T: Introduction to Materials Science Technology II (3)
Engl 119T: Technical Communications (3)	MST 104T: Introduction to Microscopy and Microstructures (3)
Math 119: Algebra (4) OR	MST 106T: Principles of Heat Treating (3)
Math 120: Intermediate Algebra (3) AND	MST 108T: Introduction to Mechanical Behavior of Materials (3)
Math 106: Problems in Intermediate Algebra (1)	MST 110T: Materials and Process Selection (3)
Math 123: Trigonometry (2)	MST 296T: Materials Science Technology Cooperative Work Phase 1, 2, or 3 (1-3) (CR/NC)
Chem 111L: Elements of General Chemistry (4)	
CT 102LT: Introduction to Microcomputers on the PC (4)	

Total credit hours = 39

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 the 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 cumulative grade point average of 2.0.

At least 15 of these 63 hours must be UNM-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 119: Algebra (4) OR

Math 120: Intermediate Algebra (3) AND

Math 106: Problems in Intermediate Algebra (1) or higher level

5. Business Technology (12 credit hours)

Bus-Tc 202T: Bus. 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 credit hours)

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

8. Technical Electives or Cooperative Education Work Phases (6 credit hours)

Bus-Tc 213T: Auditing (3)

Bus-Tc 214T: Governmental/Not for Profit Accounting (3)

Bus-Tc 296T: Bus. Cooperative Work Phase I, 2, or 3 (1-3)

NOTE: Courses designated with a suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to UNM Main Campus, and will not be accepted toward a 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: Bus. 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: Intro to Microcomputers on the PC (4)

or

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

C T 103LT: Introduction to Spreadsheets (1)

C T 104LT: Introduction to Relational Databases (1)

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 = 31

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 cumulative grade point average of 2.0.**

At least 15 of these 63 hours must be UNM-Los Alamos 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)**

Students are encouraged to select from the UNM Core Curriculum in Fine Arts.

- 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 (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 a suffix of "T" are developed and offered only by UNM-Los Alamos, do not automatically transfer to UNM Main Campus, and will not be accepted toward a 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 cumulative grade point average of 2.0.**

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

- 2. Academic Skills (1 credit hour)**

Acad 107T: College Survival Skills (1)

- 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 (4 credit hours)**

Math 119: Algebra (4)

or

Math 120: Intermediate Algebra (3)

and

Math 106: Problems in Intermediate Algebra (1)

- 5. Laboratory Science (4 credit hours)**

Select from the following:

Biol 110/112L: Biology/Biology Laboratory (Non-Majors) (3/1)

Biol 121L: Principles of Biology (4)

Biol 122L: Principles of 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 [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)

- 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 to 1877 (3)

or

Hist 162: History of the United States since 1877 (3)

Hist 260: History of New Mexico

Phil 156: Introduction to Reasoning and Critical Thinking (3)

Thea 122: Introduction to Theatre

Music 139: Music Appreciation

Libr 290: Intro to Information Research Strategies (3)

Associate of Applied Science in Hospitality Administration/Management Cont'd.

8. Core Courses (35 credit hours)

C T 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)

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 102LT: 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)

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

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.

Acad 107T: College Survival Skills (1)
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 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)

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 = 36

Associate of Applied Science in Network Administration NT Track

About the Program

This degree program is designed to teach students the skills to install and maintain a networking system. 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: NT or UNIX. Students graduating with this degree will be able to work as system and network administrators in a small business environment with networked computing facility.

Specific Requirements

1. **A minimum of 65 credit hours with a minimum cumulative 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-Los Alamos 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 (44 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)

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

IT 109LT: Information Technology Cooperative Education (3)

IT 120LT: Networking Core Concepts (3)

IT 121LT: Windows 2000 Professional (3)

IT 122LT: Windows 2000 Server (3)

IT 131LT: Introduction to Hardware Installation (3)

IT 132LT: Microcomputer Operating Systems (3)

IT 225LT: TCP/IP (3)

IT 226LT: Internet Information Server (3)

IT 227LT: NT SQL Server (3)

or

IT 229LT: Networking Infrastructure (3)

5. **Mathematics and Statistics (3-4 credit hours)**

Math 119: Algebra (4)

or

Math 120: Intermediate Algebra (3)

and

Math 106: Problems in Intermediate Algebra (1)

or

Math 150: Pre-Calculus Mathematics (3)

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

Physcs 102: Introduction to Physics (3)

Physcs 102L [112L] : 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 [in C++] (3)

CS 260: Introduction to Networking Using Novell (3)
(NNMCC only)

IT 230LT: UNIX System Administration I (3)

IT 231LT: UNIX System Administration II (3)

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

Certificate in Network Administration NT Track

This certificate represents completion of a course of studies related to the field of Network Administration. A minimum cumulative grade point average of 2.5 is required in the Core Courses.

Core Requirements (38-39 credit hours)

CS 101LT: Introduction to Computer Science (4)
 CT 102LT: Introduction to Microcomputers on the PC (4)
 Engl 101: Composition I: Exposition (3)
 IT 120LT: Networking Core Concepts (3)
 IT 121LT: Windows 2000 Professional (3)
 IT 122LT: Windows 2000 Server (3)
 IT 131LT: Introduction to Hardware Installation (3)
 IT 132LT: Microcomputer Operating Systems (3)
 IT 225LT: TCP/IP (3)
 IT 226LT: Internet Information Server (3)
 IT 227LT: NT SQL Server (3)
 or
 IT 229LT: Networking Infrastructure (3)
 Math 119: Algebra (4) or
 Math 120: Intermediate Algebra (3) and

Math 106: Problems in Intermediate Algebra (1)
 or
 Math 150: Pre-Calculus Mathematics (3)

Technical Electives (0-3 credit hours)

CS 103LT: Advanced UNIX (1)
 CS 130LT: Introduction to Problem Solving Strategies (3)
 CS 151L: Computer Programming Fundamentals [in C++] (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 230LT: UNIX System Administration I (3)
 IT 231LT: UNIX System Administration II (3)

Total credit hours = 39

Statement of Completion in Macintosh Training

Bus-Tc 111T: Keyboarding I (2)
 C T 105LT: Introduction to the Macintosh (1)
 C T 106LT: Microsoft Word on the Macintosh (1)
 C T 107LT: Microsoft Excel (1)
 C T 109LT: Introduction to Desktop Publishing on the Macintosh (1)
 C T 121LT [108]: Introduction to Appleworks (Clarisworks) [Microsoft] (1)

Total credit hours = 7

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 networking system. 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: NT or UNIX. Students graduating with this degree will be able to work as system and network administrators in a small business environment with networked computing facility.

Specific Requirements

- 1. A minimum of 65 credit hours with a minimum cumulative grade point average of 2.0. A minimum grade of C (not C-) or better in each Core Course.**
- 2. 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)
- 3. Core Courses (39 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 [in C++] (3)
CS 220LT: Systems Analysis and Design (3)
CT 102LT: Introduction to Microcomputers on the PC (4)
IT 109LT: Information Technology Cooperative Education (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)

- 4. Mathematics and Statistics (3 credit hours)**
Math 150: Pre-Calculus Mathematics (3)
- 5. Physical Science (4 credit hours)**
Physcs 102: Introduction to Physics (3)
Physcs 102L [112L] : Introduction to Physics Laboratory (1)
- 6. Humanities/Fine Arts/Social Sciences (3 credit hours)**
Phil 156: Reasoning and Critical Thinking (3)
- 7. Technical Electives (7 credit hours)**
CS 160LT: Introduction to JAVA (3)
CS 170LT: Introduction to Visual Basic (3)
CS 180LT: Introduction to PERL
CS 260: Introduction to Networking Using Novell (3) (NNMCC only)
IT 121LT: Windows 2000 Professional (3)
IT 122LT: Windows 2000 Server (3)
IT 226LT: Microsoft Internet Information Server (3)
IT 227LT: NT SQL Server (3)
IT 229LT: Networking Infrastructure (3)

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



Certificate in Network Administration

UNIX Track

This certificate represents completion of a course of studies related to the field of Network Administration. A minimum cumulative grade point average of 2.5 is required in the Core Courses.

Core Requirements (36 credit hours)

CS 101LT: Introduction to Computer Science (4)
CS 103LT: Advanced UNIX (1)
CS 151LT: Computer Programming Fundamentals [in C++] (3)
CT 102LT: Introduction to Microcomputers on the PC (4)
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)
Math 150: Pre-Calculus Mathematics (3)

Technical Electives (3 credit hours)

CS 130LT: Introduction to Problem Solving Strategies (3)
CS 160LT: Introduction to JAVA (3)
CS 170LT: Introduction to Visual Basic (3)
CS 180LT: Introduction to PERL (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 121LT: Windows 2000 Professional (3)
IT 122LT: Windows 2000 Server (3)
IT 226LT: Internet Information Server (3)
IT 227LT: NT SQL Server (3)
IT 229LT: Networking Infrastructure (3)

Total credit hours = 39

Associate of Applied Science in Office Administration

About the Program

This terminal degree program is designed to develop skills and abilities to meet employment requirements for the positions of office manager, secretary, receptionist, word processor or accounting clerk.

Specific Requirements

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

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

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

Engl 101: Composition I: Exposition (3)

Engl 119T: Technical Communications (3)

C & J 130: Public Speaking (3)

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

4. **Mathematics and Statistics/Natural Science/ Behavioral Science (7 credit hours) must include:**

Math 119: Algebra (4)

or

Math 120: Intermediate Algebra (3)

and

Math 106: Problems in Intermediate Algebra (1)

or higher level

5. **Computer Technology (7 credit hours)**

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

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

6. **Business Technology (18 credit hours)**

Bus-Tc 125T: Office Administration I (3)

Bus-Tc 126T: Office Administration II (3)

Bus-Tc 202T: Business Applications on Microcomputers (3)

Bus-Tc 204T: Human Relations in Business (3)

Bus-Tc 264T: Word Processing I (3)

Bus-Tc 274T: Word Processing II (3)

7. **Management (8 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)

8. **Approved Electives (9 credit hours)**

Typing proficiency is required and may be demonstrated by successfully completing:

Bus-TC 112T: Keyboarding II (2)

or by successfully completing a timed typing test administered by a Business Technology instructor.

NOTE: Courses designated with a 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 Administration

This certificate represents completion of a course of studies related to the field of Office Administration. 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 125T: Office Administration I (3)

Bus-Tc 126T: Office Administration II (3)

Bus-Tc 202T: Business Applications on Microcomputers (3)

Bus-Tc 204T: Human Relations in Business (3)

Bus-Tc 264T: Word Processing I (3)

Bus-Tc 274T: Word Processing II (3)

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

Engl 101: Composition I: Exposition (3)

Engl 119T: Technical Communications (3)

Mgt 101: Fundamentals of Accounting I (3)

Mgt 101L: Fundamentals of Accounting I Lab (1)

Total credit hours = 31

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 to solve their problem.

Specific Requirements

1. **A minimum of 65 credit hours with a minimum cumulative grade point average of 2.0. Minimum grade of C (not C-) in each Core Course.**

At least 15 of these 65 hours must be UNM-Los Alamos 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.

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

Engl 101: Composition I: Exposition (3)
Engl 119T: Technical Communications (3)
C & J 221: Interpersonal Communications (3)
or
C & J 225: Small Group Communications (3)

3. **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 (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)

4. **Humanities/Fine Arts/Social Science (3 credit hours)**

Phil 156: Reasoning and Critical Thinking (3)

5. **Mathematics and Statistics (3 - 4 credit hours)**

Math 119: Algebra (4)

or

Math 120: Intermediate Algebra (3)

and

Math 106: Problems in Intermediate Algebra (1)

or

Math 150: Pre-Calculus Mathematics (3)

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

Physcs 102: Introduction to Physics (3)
Physcs 102L [112L] : Introduction to Physics Laboratory (1)

7. **Technical Elective (5 - 6 Credit hours)**

Select from the following topics:

Networking, Web Page Design, Programming, Digital Media Arts, Statistics

NOTE: Courses designated with a 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 a 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 119: Algebra (4)

or

Math 120: Intermediate Algebra (3)

and

Math 106: Problems in Intermediate Algebra (1)

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

At least 15 of these 65 hours must be UNM-Los Alamos 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.

- 2. 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)

- 3. Core Requirements (27 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 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)

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

Math 150: Pre-Calculus Mathematics (3)

- 5. Physical/Natural Sciences (4 credit hours)**

Select from the following:

Biol 110/112L: Biology/Biology Laboratory (Non-Majors) (4)

Biol 121L: Principles of Biology (4)

Biol 122L: Principles of Biology (4)

Chem 111L: Elements of General Chemistry (4)

Chem 121L: General Chemistry (4)

Chem 122L: General Chemistry (4)

Astr 101/101L: Introduction to Astronomy/Astronomy Laboratory (4)

Physcs 102/102L: Introduction to Physics/Physics Laboratory (4)

Physcs 160: General Physics (3)

Physcs 160L [163L] : General Physics Lab (1)

E & PS 101/105L: How the Earth Works - An Introduction to Geology/Physical Geology Laboratory (4)

Nat Sc 261L: Physical Science (4)

Nat Sc 262L: Life Science (4)

Nat Sc 263L: Environmental Science (4)

- 6. Social/Behavioral Science (6 credit hours)**

Select from the following:

Anth 130: Cultures of the World (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)

Soc 211: Social Problems (3)

Associate of Applied Science in Web Technologies Cont'd.

7. Humanities/Fine Arts (6 credit hours)

Required:

Phil 156: Reasoning and Critical Thinking (3)

Select from the following:

Am St 186: Introduction to Southwest Studies (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)

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)

Relig 107: Living World Religions (3)

Thea 122: Theatre Appreciation [Introduction to Theatre] (3)

8. Technical Electives (10 credit hours)

Choose from the following suggested electives:

CT 203LT: Introduction to Desktop Publishing (3)

CT 165LT: Introduction to Web Authoring (GoLive) (3)

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

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

DMA 240LT: Web Audio/Video (3)

DMA 250LT: Web Animation (Flash) (3)

CS 151L: Computer Programming Fundamentals [in C++] (3)

CS 160LT: Introduction to JAVA (3)

CS 170LT: Introduction to Visual Basic (3)

CS 180LT: Introduction to PERL (3)

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

Certificate in Web Technologies

The Certificate in Web Technologies prepares students to design and develop web sites. The kinds of web sites students will learn to design and develop include a range from relatively simple web sites that provide information, to complex, large-scale web sites that provide information and interactive web sites 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). Students will learn how to create forms for transactional websites using Perl and CGI (Common Gateway Interface). Students will learn the techniques of information architecture and the principles of web usability. Students will integrate these tools, techniques, and principles in the design and development of complex web sites in a course on creating a web portfolio. Upon graduation, students 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 of the 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 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)

Total credit hours = 33

Lower Division Course Descriptions

A schedule of course offerings that includes hours of meeting and instructors will be issued before each semester and session. These 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 the 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 Student Service'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

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 50's; America in the 60's and 70's; 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. (3)

(Also offered at 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.



Anth 101: Introduction to Anthropology. (3)

Surveys the breadth of anthropology, introducing students to archaeology, biological anthropology, ethnology, and social nature of the language. Implications for cross-cultural theory, research and applications.

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: Archeological Method and Theory. (4)

Introduction to archeological 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 hours lab and five field trips.

Anth 220: World Archeology. (3)

Introduces archeological 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.

{Offered at branch campuses only.}

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 that 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 101.

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 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]. (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 that 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, 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)

An intensive investigation of the materials and processes that inform contemporary ceramic work including a wide range of clay bodies, surface treatments and firing processes.

Prerequisite: Art St 168.

Art St 274: Introduction to Printmaking. (3)

Fundamental techniques, methods and expressive potentials of the major printmaking process, including monotype, etching, lithography, woodcut and xerography. Instruction includes lecture, demonstrations, practice and critique.

Prerequisites: Art St 106, Art St 121;
corequisites: Art St 205 or Art St 207.

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.

Prerequisite: Art St 187; Pre- or corequisites: Art St 121.

Art St 298T*: Topics. (1-3)

Titles will vary.

ASTRONOMY & PHYSICS



Astr 101: Introduction to Astronomy. (3)

The theme is cosmic evolution. It provides a guided tour of the universe to find out where and when we are in the cosmos. The presentation is descriptive and non-mathematical. It starts with an overview into people's ideas about the universe. After an inquiry into the origin and evolution of the solar system, a study of stars is made to find the place of the solar system in the Milky Way Galaxy. Finally, a history is presented of the physical, chemical, and biological evolution of the universe, from its beginning in a big bang to the possibility of life elsewhere in the Galaxy. Special topics may include black holes, interstellar communication, UFO's, and missions to the planets. No preparation is assumed. Important concepts of physics, chemistry, geology and biology are introduced in the context of the course. See Astr 101L for optional observations.

Astr 101L: Astronomy Laboratory. (1)

Intended as an adjunct to Astr 101, this course deals with elementary techniques in astronomical observations. 2 hrs.

Pre- or corequisite: Astr 101.

Physcs 102: Introduction to Physics. (3)

Designed for non-science students in all colleges as well as for students planning to major in the sciences who want a general introduction to the basic phenomena and concepts of physics. The treatment is primarily descriptive, with practical demonstrations and applications and with a minimum of elementary mathematics. No previous preparation is assumed. Basic physical concepts such as energy, momentum, and electric charge are discussed as well as the properties of gravitational, electromagnetic and nuclear forces, and wave phenomena. The basic ideas of relativity and quantum theory are introduced. See Physcs 102L for an optional laboratory.

Physcs 102L [112L]: Physics Laboratory. (1)

A physics laboratory offered in conjunction with Physics 102 for students desiring laboratory credit. Experiments and projects designed to explain basic physical concepts related to the atom, the environment, and the universe. 2 hr. lab.

Pre- or corequisite: Physcs 102.

Physcs 151: General Physics. (3)

Mechanics, sound, heat. The sequence 151, 151L [153L], 152, 152L [154L] 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 [153L]: General Physics Laboratory. (1)

Mechanics, sound, heat. 3 hrs. lab.

Pre- or corequisite: Physcs 151.

Physcs 152: General Physics. (3)

Electricity, magnetism, optics.

Prerequisite: Physcs 151.

Physcs 152L [154L]: General Physics Laboratory. (1)

Electricity, magnetism, optics. 3 hrs. lab.

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 [163L], 161, 161L, 262, 262L [264L] is required of students planning to major in certain sciences and in engineering.

Pre- or corequisite: Math 162.

Physcs 160L [163L]: General Physics Laboratory. (1)

Mechanics, sound, heat. 3 hr. lab.

Pre- or corequisite: Physcs 160.

Physcs 161: General Physics. (3)

Heat, electricity, magnetism.

Prerequisite: Physcs 161; pre- or corequisite: Math 163.

Physcs 161L: General Physics Laboratory. (1)

Electricity, magnetism.

Prerequisite: Physcs 160; pre- or corequisite: Math 163.

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 [264L]: General Physics Laboratory. (1)

Electricity, magnetism, optics. 3 hrs. lab

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.



BANKING TECHNOLOGY

BankT 192T: Topics. (1-3)

Titles will vary.

CR/NC.

BankT 193T: Topics. (1-3)

Titles will vary.



BIOLOGY

Biol 110: Biology for Non-Majors. (3)

Biological principles important for the non-major in today's world. Ecological, evolutionary, and molecular topics. 3 lectures.

Credit not allowed for both Biol 110 and either Biol 121L-122L or Biol 123L.

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 121L: Principles of Biology. (4)

Impact biology, biological chemistry, molecular genetics, Mendelian inheritance, embryology. Emphasis on development of concepts. 3 lectures, 3 hr. lab.

Credit not allowed for both Biol 121L and either Biol 110 or Biol 123L.

Biol 122L: Principles of Biology. (4)

Population genetics, evolution, ecology, behavior, plant and animal physiology, and survey of diversity of organisms. Emphasis on development of concepts.

Prerequisite: Biol 121L or permission of instructor. 3 lectures, 3 hr. lab.

Credit not allowed for both Biol 122L and either Biol 110 or Biol 123L.

Biol 219: Principles of Cell Biology. (3)

Cell structure and cellular processes, including membranes, cytoskeleton, nucleus, DNA replication, gene expression, energy metabolism, receptors, and cancer biology.

Prerequisites: Biol 121L, Biol 122L, 4 hrs. of general chemistry.

Biol 220: Cell Biology Problems. (1)

Problems, discussion, and demonstrations in cell biology. Coverage is correlated with topics in 219.

Corequisite: Biol 219.

Biol 221: Introductory Genetics. (3)

Structure, function, and transmission of hereditary factors.

Prerequisites: Biol 219, Biol 121L, Biol 122L.

Biol 222: Introductory Genetics Problems. (1)

Problem solving techniques in genetic analysis. Coverage is correlated with topics in Biol 221.

Corequisite: Biol 221.

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. 3 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. 3 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 123L and 4 hrs. of general chemistry. 3 lectures.

Biol 238: Human Anatomy and Physiology II for the Health Sciences. (3)

Continuation of Biol 237. Cardiovascular, respiratory, digestive, excretory, reproductive, and endocrine systems. 3 lectures.

Prerequisite: Biol 237.

Biol 239L: Microbiology for Health Sciences. (4)

Introduction to microbiology with emphasis on principles of infection and immunity.

Prerequisites: Biol 121L or Biol 123L and 4 hrs. of chemistry. Not accepted toward a biology major. 3 lectures; 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

Bus-Tc 111T: Keyboarding I. (2)

Use of the touch system in learning basic typewriting skills and applications.

Bus-Tc 112T: Keyboarding II. (2)

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 125T: Office Administration I. (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: Office Administration II. (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 164T: 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 micro-computers to quantify, measure, report business activities. Computer used to prepare general ledger systems, payables, payroll, inventory, and equipment studies.

Prerequisites: Mgt 101, C T 102LT.

Bus-Tc 203T: Business Communication. (3)

Course will cover the four fundamental communication skills: reading, writing, speaking, and listening. Topics: grammar, punctuation, proofreading, editing, language structure, mechanics of style, using words effectively, business letters and memos, reports, and oral communication.

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, C T 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, 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.

Prerequisite: 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

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. 3 lectures, 3 hr. lab.

(Credit not allowed for both Chem 111L and Chem 121L.)

Chem 121L: General Chemistry. (4)

Introduction to the chemical and physical behavior of matter.

Prerequisites: 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. 3 lectures, 3 hr. lab.

Chem 122L: General Chemistry. (4)

Continuation of Chem 121L.

Prerequisites: Chem 121L or Chem 131L with grade of C or better. 3 lectures, 3 hr. lab.

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 volumetric and gravimetric analysis.

Prerequisite: Chem 122L. 2 lectures, 6 hrs. lab.

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

COMMUNICATION & 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 125: 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 151L: 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 221: Interpersonal Communication. (3)

Analysis of a variety of interpersonal communication concepts with special emphasis on the application of communication 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 232: Business and Professional Speaking. (3)

Analysis, preparation, and presentation of speeches common in business and professional settings. Required for completion of major study requirements. Required of majors.

COMMUNITY & 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

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 C S 102LT or C S 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.

Prerequisites: 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.

Prerequisites: CT 102LT.

CS 138LT: Introduction to Computer Hardware. (1)

A joint seminar and lab to introduce the fundamentals of computer logic and design. Topics: number systems; basic electronic circuits; combinational logic and digital integrated circuits; gates; registers; MSI and LSI.

Prerequisite: CS 251L.

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 150.

CS 151L: Computer Programming Fundamentals. (3)

An introduction to the art of computing. The objective of the course is an understanding of the relationship between computing and problem solving. Programs will be written in C++.

Prerequisite: Math 150 and basic knowledge of Unix.

Students unfamiliar with Unix can obtain this knowledge from CS 161L or ME 101L. 3 lectures. 1 hr. lab.

Prerequisite: Math 150 and either CS 101LT or CS102LT.

CS 160LT: 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 170LT: 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 201: 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 151L, Math 162.

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.

CS 236LT: Introduction to FORTRAN 95 Programming. (3)

Programming emphasizing FORTRAN 95 features: dynamic storage allocation, modular design, data structures, internal and external subprograms, recursion, overloading, internal files and pointers; object-oriented features such as overloading; efficient program design and implementation.

Prerequisite: CS 151L or programming experience in another language.

CS 238LT: Introduction to Operating System Functions. (3)

Introduces a variety of different operating systems and the services they perform. Topics: linkers and loaders, system recovery, accounting procedures, command language, compilers/interpreters, system utilities, and computer networks. The system hardware/software interface will be introduced through the use of graphics programs.

Prerequisite: CS 151L.

CS 239LT: Computer Graphics Applications Programming. (3)

Interactive computer graphics techniques; graphics hardware and software, data structures user interface and fundamental algorithms. Students will write their own graphics programs.

Prerequisite: CS 251L.

CS 251L: Intermediate Programming. [Introduction to Data Structures]. (3)

A continuation of CS 151L. Topics will include pointers and recursion; elementary data structures and their implementation (stacks, queues, associative arrays; linked lists, binary search trees); data abstraction and encapsulation; program design, testing, modification, documentation, and correctness (independent compilation). Programs will be written in C++. 3-hour lecture, 1-hour lab.

Prerequisite: CS 151L.

CS 255LT: Introduction to Computing Systems. (3)

Introduction to machine language and computer architecture. Topics: internal representation of instructions and data, interaction between programs, basic components of operating systems.

Prerequisites: CS 251L, EECE 238L.

CS 257L: Nonimperative Programming. (3)

Experience with applicative/functional programming languages (Scheme). Lists, recursion, associative arrays, trees. User interface toolkits. Graphics.

Prerequisite: CS 151L.

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

Focuses on the advanced features of C++ including operator overloading, inheritance, polymorphism, and the Standard Template Library. This projects course stresses the design, 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.

Prerequisite: CS 251L.

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)

Titles will vary.

CR/NC.



COMPUTER TECHNOLOGY

C T 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-Los Alamos network.

C T 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).

C T 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

C T 104LT: Introduction to Relational Databases. (1)

Introduces system and file management commands; basics of field structure; file creation; and record sorting, indexing, deleting, and editing.

CR/NC

C T 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, setting control panels), and the basics of typical applications such as word processing, spreadsheets, desktop publishing, databases, and web browsing.

C T 106LT: Microsoft Word on the Macintosh. (1)

The use of Microsoft Word for the Macintosh computer.

Prerequisite: CT 105LT or permission of instructor.

C T 107LT: Microsoft Excel. (1)

The use of Microsoft Excel for the Macintosh computer.

Prerequisite: CT 105LT or permission of the instructor

C T 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.

C T 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.

Prerequisite: CT 101LT or permission of the instructor.

C T 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.

Prerequisites: C T 101LT or C T 102LT, and a basic knowledge of drafting techniques.

C T 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.

C T 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: C T 106LT.

C T 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: C T 111LT.

C T 120LT: Introduction to Microcomputers on the Macintosh. (3)

Course introduces the student to Macintosh computers, computer terminology, hardware and software.

C T 121LT [108]: Introduction to Appleworks (ClarisWorks). [Microsoft Works]. (1)

Provides an understanding of an integrated system for word processing, spreadsheets, databases and communication programs.

Prerequisite: C T 105LT or permission of instructor.

C T 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.

C T 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.

C T 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.

C T 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.

C T 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 (GoLive). (3)

This full semester course is an introduction to making and designing web pages using HTML generating software, Adobe GoLive. Students learn how to make well-designed web pages from simple to the complex. Site creation with image, text and simple animations are included. Design principles as they apply to the World Wide Web are also presented. No knowledge of HTML is required.

C T 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.

C T 192LT*: Topics. (1-3)

Titles will vary.

CR/NC.

C T 193LT*: Topics. (1-3)

Titles will vary.

C T 201LT: Applications of Relational Databases. (4)

A basic understanding of the hierarchical, network and relational database models. Heavy emphasis placed on relational model. Student should be able to model a non-complex problem in a relational database.

Prerequisite: C T 102LT or or permission of instructor.

C T 202LT: Applications of Spreadsheets. (3)

Worksheet skills, graphics and databasing.

Prerequisite: C S 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 using PageMaker.

Prerequisite: C T 105LT or C T 120LT.

C T 292LT*: Topics. (1-3)

Titles will vary.

CR/NC

C T 293LT*: Topics. (1-3)

Titles will vary.

C T 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.

CR/NC

COOPERATIVE EDUCATION PROGRAM

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.

As COP 105: Cooperative Work Phase. (1-3)

A mechanism for registered work phase students from the College of Arts and Sciences as full time students while working.

CR/NC

As COP 109: (1-3)
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

**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

**C T 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

IT 109LT: Cooperative Education (3)

A work-study program with local industry to give the student practical experience in an industrial environment doing technology work.

Prerequisites: Third or fourth semester standing and permission of the Technology Coordinator.

CR/NC

**H AD M 296T: Hospitality Administration
Management Cooperative Work Phase 1, 2,
or 3 (1-3)**

CR/NC

**MST 296T: Materials Science Technology Coop-
erative Work Phase 1, 2, or 3 (1-3)**

CR/NC



DANCE

Courses marked with an * may be repeated for credit because subject matter varies.

Dance 169: Flamenco I (2 to a maximum of 6)*

Fundamental work for the adult beginner in techniques and styles of Flamenco.



DIGITAL MEDIA ARTS

**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: CT 105LT or CT 120LT.

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

This course is a second level 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 165LT.

**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.

**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: IT 165LT.

DMA 240LT: Audio/Video for the Web (3)

This course serves as an introduction to digital video (with audio) and its unique aesthetic criteria. The 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 165LT.

DMA 250LT: Web Animation (Flash). (3)

Web Animation introduces both raster and vector oriented tools to make moving-image projects. These projects will be designed primarily for World Wide Web delivery, however options will be presented for non-web applications. Digital audio is introduced for inclusion in the final project.

Prerequisite: DMA 166LT, IT 145LT.

DMA 260LT: Interactive Multimedia Design (Director/Flash/ Shockwave). (3)

This course will address design issues in interactive multimedia projects. It will introduce the tools to make non-linear interactive games, books, training modules, "edutainment" CD-ROMs, or experimental projects. Integration of these types of productions with the World Wide Web will also be covered. 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 multimedia or to refine their techniques in making well designed web or interactive projects, and still or moving imagery. Particular attention is paid to the aesthetic and design issues of the projects. May be repeated for credit.

Prerequisites: DMA 166LT, DMA 250 LT, DMA 260 LT.

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

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.

EARLY CHILDHOOD MULTICULTURAL EDUCATION (ECME)

ECME 105: Childhood Growth and Development. (3)

This basic course in growth and development of young children, pre-birth through age eight, will provide students with the foundation for becoming a competent early childhood professional and a knowledge of how young children develop and learn. Major theories of child development will be integrated with all aspects of development including psychosocial, physical/motor, cognition, language, and literacy of both typical and atypical children. During the first eight years of life, children are establishing crucial foundations for later learning and development. The importance of these years will be presented from an ecological context of family, school, community, and society. Developmentally appropriate practice, ethical responsibility, the role of advocacy, and the need for continuing study will be emphasized throughout the class.

ECME 106: Observation of Young Children. (1)

Students will observe in an approved early childhood setting to promote practical application of lecture and text material for ECME 105 - Child Growth and Development.

ECME 107: Learning Environments for the Early Childhood. (3)

This course is designed to provide students with the knowledge and skills needed to set up and maintain safe, healthy, multicultural learning environments, both indoors and outdoors, for children ages birth to eight years, developing typically and atypically. Students learn to create and manage a learning environment that emphasizes play, active manipulation of concrete materials, child choice and decision making, exploration of the environment and interaction with others. In addition, promoting good health, nutrition, and providing an environment that contributes to the prevention of illnesses will be discussed.

ECME 108: Early Childhood Practicum I. (2)

Students work in an approved early childhood setting 4 hours a week enabling them to practice competencies learned through course work and texts. Students will interact with culturally and developmentally diverse children and programs; interview parents.

ECME 109: Learning Environments for Early Childhood II. (3)

This introductory curriculum course for young children will focus on planning, analyzing, and evaluating materials, equipment, activities, and approaches used in providing learning experiences for groups of children ages birth through third grade. Students read, study, discuss, plan and try out new ideas.

ECME 110: Early Childhood Practicum II. (2)

Students work in an approved early childhood setting 4 hours a week enabling them to practice competencies learned through course work and texts. Students will interact with culturally and developmentally diverse children and programs; interview parents.

ECME 113: Guidance of the Young Child. (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 preventing and handling classroom discipline problems. Positive discipline strategies for 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 119: Emerging Literacy. (3)

This course provides basic knowledge for promoting young children's language, literacy, investigative, and problem solving abilities with a developmental emphasis. The languages and cultures of children served are viewed as resources.

ECME 203: Introduction to the Early Childhood Professions. (4)

A survey course of both theoretical and practical aspects of the early childhood profession. Includes practicum experiences in sites serving children birth to three, three to five, and five to eight.

ECME 205: Individual and Family Diversity. (3)

This course focuses on diversity in individuals and families, including development and learning in early childhood settings.

ECME 207: Diversity in Early Childhood Programs and Assessment. (2)

This course focuses on how to teach to a diverse population in early childhood settings.

EARTH & PLANETARY SCIENCE

E&PS 101: How the World Works - An Introduction to Geology. (3)

A fascinating tour of our active planet. Explore earth materials (rocks and minerals), the continents' motion 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.

E&PS 102L: Historical Geology. (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. Pre- or corequisite: E&PS 105L.

E&PS 105L: Physical Geology Laboratory. (1)

Minerals, rocks, and topographic and geological maps; field trips.

Pre- or corequisite: E&PS 101.

Engr-F 130T: Introduction to Environmental

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.



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 106 or Math 122 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.

Elect T 109LT: Circuit Analysis. (3)

An introduction to electrical circuit elements and the basic methods for circuit analysis. Ohm's law, Kirchhoff's laws, Mesh and Nodal analysis, Thevenin's and Norton's theorems. Capacitance, inductance, and single time-constant circuits.

Corequisites: Math 150, Elect T 130T.

Elect T 110LT: Measurements Lab. (1)

Basic elements of mechanical, electric, electronic, and radio frequency measurements. Emphasis on the rigor of measurements. Includes the use of calipers, scribes, oscilloscopes, laser and transits. Introduction to all facets of measurement set-ups including safety issues.

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.

Elect T 114LT: Vacuum Systems Lab. (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 116LT: Fabrications Lab. (1)

Introduction to electronic and mechanical drawings and standards, electronic circuit board fabrication and repair and electronic soldering. Will cover ANSI standards and environmental health and safety standards.

Elect T 118LT: Technical Skills Lab. (1)

Introduction to circuit manufacturing including integrated circuits, cleanroom technology and basics of circuit materials and devices.

Prerequisites: Elect T 192LT, Chem 111L.

Elect T 119LT: Electronics Lab II. (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 130T: Analytical Methods in Electronics Technology. (2)

Techniques used to solve problems typically found in electronics technology; acquiring and analyzing data; preparing reports. Includes the use of scientific/programmable calculators, microcomputers, and computer facilities. 1 lecture, 3 hrs. lab

Prerequisite: Eligibility for admission to Math 150.

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 230LT: Instrumentation and Computer Control. (4)

Application of microprocessors, analog-to-digital converters, digital-to-analog converters, pressure, and flow sensors to the measurement and control of electro-mechanical and chemical processes.

Prerequisite: Grade of C or better in Elect T 203 L or equivalent.

Elect T 237LT: Digital Electronics I (Sequential Logic). (3)

Sequential logic circuits, MSI, LSI, and VLSI integrated circuits. Counters, shift-registers, ALUs. Memory and interface circuitry for microprocessors.

Prerequisite: Elect T 137LT.

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 - I 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 navigation, finding food and water, and constructing temporary shelters. Two overnight wilderness 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.

EMS 201: EMT- Intermediate. (5) [3]

This course utilizes the standard U.S. D.O.T. curriculum, and involves 108 hours of didactic and laboratory sessions. Emphasis is placed upon prehospital emergency patient assessment and care, with advanced airway management and intravenous therapy included.

Prerequisite: EMS 101.

ENGINEERING

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 & COMPUTER ENGINEERING

EECE 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, complex power. Three-phase circuits.

Prerequisites: C- or better in Math 163 and CS 151L. Corequisites: Math 316, Physics 161.

EECE 213L: Circuit Analysis II. (3)

General transient analysis of electrical circuits. Laplace transform with application to circuit analysis. Fourier series analysis. Introduction to state variables. The network function; impulse response; convolution; frequency response.

Prerequisites: C- or better in both EECE 203 and Math 316 or permission of the instructor.

EECE 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.

ENGINEERING (General)

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 131T: Introduction to Environmental Science II. (3)

A continuation of Engr-F 130T. 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 is 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.

MECHANICAL ENGINEERING

M E 101L: Introduction to Engineering Methods

Engineering graphics, technical sketching, and introduction to Computer Aided Design. 2-hour lecture, 2-hour lab.

Prerequisite: Eligibility for admission to Math 150.

M E 201: Introduction to Mechanical Engineering. (2)

Lectures, demonstrations and simple experiments on mechanical systems to introduce the student to concepts of mechanical engineering.

Prerequisites: Math 162, CS 151. Corequisites: M E 101L, CE 202.

M E 273L: Engineering Shop Practice. (1)

Principles of and practice with hand and machine tools of the mechanical engineering metal shop. Measurements; drilling; welding; sawing; benchwork, grinding and sheet metal operations are covered. Lathe and milling machine operations are emphasized. Course designed to meet the needs of engineering students for future course projects. 3-hour lab.

Prerequisite: sophomore standing.



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.

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.
CR/NC only.

IS-Engl 020T: Reading I. (1)

Reading for accuracy and understanding in short expository passages. Vocabulary, sequence and discussion skills are emphasized.

CR/NC only.

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.

CR/NC only.

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: IS-Engl 010T or placement; Pre-or corequisite: IS-Engl 021T.

CR/NC or ABC/PR/NC

Engl 101: Composition I: Exposition. (3)

Expository writing and reading. Concentrates on organizing and supporting ideas in writing.

Prerequisite: Satisfactory completion of IS-Engl 100 or appropriate placement score. (See Freshman English at UNM: A Student Handbook or UNM-Los Alamos 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 the UNM-Los Alamos 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 Writing. (3)

Practice in the writing and editing of technical, engineering, and scientific reports and articles.

Prerequisite: Engl 102 or its equivalent.

Engl 221: Creative Writing: Prose Fiction. (3)

Prerequisite: Engl 101 or permission of the instructor.

Engl 222: Creative Writing: Poetry. (3)

Prerequisite: Engl 101 or permission of the instructor.

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 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 293T*: Topics. (1 - 3 to a maximum of 6)

Titles will vary.

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 & LITERATURES

JAPANESE

Japan 101: Basic Japanese. (3)

Foundation course for all beginning students, with instruction in speaking, listening, reading and writing.

Japan 102: Basic Japanese. (3)

Second half of foundation course Japan 101.
Prerequisite: Japan 101 or equivalent.

Japan 103: Elementary Japanese Conversation. (1)

Supplementary course to Japanese 101-102 for students interested in additional practice in speaking.

Students not concurrently taking Japan 101-102 must obtain permission of instructor to enroll.

Japan 104: Elementary Japanese Conversation. (1)

Supplementary course to Japanese 101-102 for students interested in additional practice in speaking.

Students not currently taking Japan 101-102 must obtain permission of instructor to enroll.

Japan 201: Intermediate Japanese. (3)

Continues development of four language skills (speaking, listening, reading, and writing) at the third semester level.

Prerequisite: Japan 102 or equivalent.

Japan 202: Intermediate Japanese. (3)

Continuation of Japan 201.

Prerequisite: Japan 201 or equivalent.

Japan 293T*: Topics. (1-3)

Titles will vary.

Japan 297: Language & Culture. (3)

This course introduces numerous aspects of business life and etiquette, and language necessary for a variety of business transactions. Realistic dialogue and useful practice exercises, such as initial meetings, telephone conversations, company tours, business conversations, and the like appear throughout the course.

Prerequisites: Japan 101, 102, 201 and 202 (or equivalent).

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)

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 203-204: Communicating in Russian I, II. (1-2, 1-2)

Developing survival skills in using Russian on a practical level. Eliciting and providing primary information and simple conversation. Essential for all minors and majors.

Pre- or corequisites: Russ 201-202.

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 on 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. Small classes designed to increase skills in speaking Spanish. Not for native speakers.

Span 293T*: Topics. (1-3)

Titles will vary.

GENERAL HONORS

Courses marked with an * may be repeated for credit because content varies.

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.

GENERAL STUDIES

Courses marked with an * may be repeated for credit because content 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.

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 content 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 260: History of New Mexico. (3)

Introduction to New Mexico history from earliest human settlement to the present day.

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 102T.

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 106T.

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 101T.

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: CS 101LT, CT 102LT.

IT 121LT: Windows 2000 Professional. (3)

This class covers the skills necessary to implement, administer, and troubleshoot information systems that incorporate Windows 2000 Professional.

Prerequisite: IT 120LT.

IT 122LT: Windows 2000 Server. (3)

This class covers the skills necessary to implement, administer, and troubleshoot information systems that incorporate Windows 2000 Server.

Prerequisite: IT 120LT.

IT 131LT: Introduction to Hardware Installation. (3)

This class covers the skills necessary to install, upgrade, diagnose, and repair PC hardware. (A+ Hardware)

Prerequisites: 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, IT 131LT.

IT 140LT: Help Desk I. (3)

The student is enrolled in a 3-credit course that 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.

Prerequisite: 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.

Prerequisites: 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 225LT: TCP/IP on Windows NT. (3)

This class covers the skills necessary to implement, administer, and troubleshoot information systems that incorporate Microsoft TCP/IP.

Prerequisite: IT 120LT.

IT 226LT: Microsoft Internet Information Server. (3)

This class covers the skills necessary to implement, administer, and troubleshoot information systems that incorporate Microsoft Internet Information Server.

Prerequisite: IT 120LT.

IT 227LT: Windows NT SQL Server. (3)

This class covers the skills necessary to implement, administer, and troubleshoot information systems that incorporate Windows NT SQL 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.

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, 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, IT 230LT.

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.

Prerequisites: IT 140LT, CS 151L or CS 170LT.

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.

Prerequisite: IT 145LT.

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, IT 242LT.

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 pre-requisite 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.
CR/NC

IS-Engl 020T: Reading I. (1)

Reading for accuracy and understanding in short expository passages. Vocabulary, sequence and discussion skills are emphasized.

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.

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. Satisfactory completion of IS-Engl 100 meets prerequisites for Engl 101.

Prerequisite: IS-Engl 010T or placement; pre- or corequisite: IS-Engl 021T.
CR/NC or ABC/PR/NC

IS-MATHEMATICS

A student who wishes to enroll in a course requiring a pre-requisite 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.

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.

CR/NC or ABC/PR/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.

CR/NC or ABC/PR/NC

JAPANESE

Japan 101: Basic Japanese. (3)

Foundation course for all beginning students, with instruction to speaking, listening, reading and writing.

Japan 102: Basic Japanese. (3)

Second half of foundation course Japan 101.
Prerequisite: Japan 101 or equivalent

Japan 103: Elementary Conversation. (1)

Supplementary course to Japanese 101-102 for students interested in additional practice in speaking.

Students not concurrently taking 101-102 must obtain permission of instructor to enroll.

Japan 104: Elementary Japanese Conversation. (1)

Supplementary course to Japanese 101-102 for students interested in additional practice in speaking.

Students not concurrently enrolled in Japan 101-102 must obtain permission of instructor to enroll.

Japan 201: Intermediate Japanese. (3)

Continues development of four language skills (speaking, listening, reading, and writing) at the third semester level.

Prerequisite: Japan 102 or equivalent.

Japan 202: Intermediate Japanese. (3)

Continuation of Japan 201.

Prerequisite: Japan 201 or equivalent.

Japan 293T*: Topics. (1-3)

Topics will vary.

Japan 297: Language & Culture. (3)

This course introduces numerous aspects of business life and etiquette, and language necessary for a variety of business transactions. Realistic dialogue and useful practice exercises, such as initial meetings, telephone conversations, company tours, business conversations, and the like appear throughout the course.

Prerequisites: Japan 101, 102, 201 and 202 (or equivalent).



LIBRARY SCIENCE

Libr 120: Introduction to Learning Strategies. (3)

Designed for development and analysis of learning strategies. Students explore academic skills and apply critical thinking strategies to textbook reading, test-taking, and library research. Assessment and use of learning styles included. Prerequisite: completion of any IS-100 requirements or permission of the instructor.

Libr 290 [220]: Introduction to Information Research Strategies. (3)

Designed to prepare students to use information storage and retrieval systems found in libraries including electronics sources such as the Internet. Critical thinking and evaluation is applied to information structure and access.



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, educational implications. Intended to fulfill breadth requirements in any college. Ling 101 and Anth 110 may not both be counted for credit.

Also offered as Anth 110.



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.

Corequisite: Mgt 102.

Mgt 113: Management: An Introduction. (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 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.

Prerequisite: A grade of C (not C-) or better in Math 180.
Also offered as Stat 245.



MATERIALS SCIENCE TECHNOLOGY

MST 101T: Introduction to Materials Science Technology I. (3)

The course will introduce students to fundamental concepts in materials science and technology. Topics to be covered include atomic bonding, microscopic structure, mechanical deformation, and processing of metals, ceramics, polymers, and composite materials. Students will learn how processing can be used to change the structure and consequently, the properties and uses of materials. Lectures will include examples of real life applications as well as economic, environmental, and societal considerations.

MST 102T: Introduction to Materials Science Technology II. (3)

The course will build upon the fundamental concepts in materials science and engineering, as applied to engineering disciplines, introduced in Introduction to Materials Science I. Students will learn about the structure of ceramics, polymers, and composite materials and how corrosion resistance and thermal, electrical, magnetic, and optical properties are derived from structure. Students will also learn about materials selection and design considerations, and the economic, environmental, and societal issues in material science and engineering.

Prerequisite: MST 101T.

MST 104T: Introduction to Microscopy and Microstructures. (3)

Metallography is the study of the interrelationship between the structural characteristics and the physical and mechanical properties of metals, alloys and nonmetallic materials such as ceramics, polymers and composites. Structural interpretation of these materials is made possible by sectioning, mounting, grinding, polishing and etching a specimen that can then be viewed microscopically. This course is intended to provide instruction in preparation techniques and the principles on which they are based. It describes methods of viewing structures and analyzing the constituents that are present.

MST 102T: Principles of Heat Treating. (3)

This introductory course will address the purpose of, and the various types of heat treatment. The types of furnaces and the quenching media used in heat-treating will be discussed. The heat treating of steel, aluminum alloys and titanium alloys will then be discussed in detail. This course is designed for people who have had little or no prior background in heat-treating or in metallurgy.

Prerequisites: Math 119 or Math 120 and Math 106, and Chem 111L.

MST 108T: Materials and Process Selection. (3)

Students will use the knowledge gained in previous materials science courses to solve a materials-related design problem. Students will be asked to search the literature, select materials and processes needed to design a part, a machine, or a process, and finally present oral and written reports.

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 296T: Materials Science Technology Cooperative Work Phase 1, 2, or 3. (1-3)

CR/NC



MATHEMATICS & 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.

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-Math 100, Math 120, or Math 119 for credit.
4. Students who have credit for any courses numbered Math 162 and above may not take Math 119, 120, 121, 123, or 150 for credit.
5. A student normally may not take an examination to validate credit in mathematics courses.

INTRODUCTORY STUDIES

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.

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

CR/NC or ABC/PR/NC

Does not count toward UNM-Los Alamos Associate degrees.

MATHEMATICS

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 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 CR in IS-Math 100 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 and measurement.

Prerequisite: A grade of C (not C-) or better in Math 111.

Math 118T: Algebra (Stretch 119 Part I). (4)

This course covers approximately the first half of Math 119. 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 119*.

Prerequisite: Fulfillment of placement requirements or a grade of C (not C-) or better in IS-Math 100.

Math 119T: Algebra. (4)

Preparation for Math 121, and Stat 145. Linear equations and inequalities, polynomials, factoring, exponents, radicals, fractional expressions, quadratic equations, functions, and functional notation.

Equivalent of Math 120 at UNM-Albuquerque.

Prerequisite: Fulfillment of placement requirements or grade of C (not C-) or better in IS-Math 100.

Math 120: Intermediate Algebra. (3)

Preparation for Math 121, 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.

Prerequisites: Fulfillment of placement requirements of grade of C (not C-) or better in IS-Math 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 119 or Math 120 and 106.

Math 123: Trigonometry. (2)

Definition of the trigonometric functions, radian and degree measure, graphs, basic trigonometric identities and inverse trigonometric functions.

Prerequisite: Fulfillment of placement requirements or a grade of C (not C-) or better in Math 119 or Math 120 and Math 106.

Math 149T: Advanced Algebra (Stretch Math 150 Part I. (3)

This course covers approximately the first half of Math 150. It is designed for the student who wishes to learn the material at a slower pace. Topics include functions and graphs and conic sections.

Prerequisite: Adequate score on placement test or grade of C or better in Math 119 or Math 120 and 106.

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, trigonometric and exponential functions, integral as a sum, relation between integral and derivative, applications, mean value theorem.

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)

Applications of the definite integral, transcendental functions, techniques of integration, improper integrals, numerical methods of integration, and infinite series.

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 150.

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 algebra; some applications of mathematics; elements of logic; enrichment topics for the classroom. Introduction to programming.

Prerequisite: A grade of C (not C-) or better in Math 111 and 112.

Math 264: Calculus III. (4)

Vector representation of curves and surfaces, partial derivatives, gradient, tangent planes, directional derivative, multiple integrals, cylindrical and spherical coordinates, applications.

Prerequisite: A grade of C (not C-) or better in Math 163.

Math 292T*: Topics. (1-3)

Titles will vary.

CR/NC

Math 293T*: Topics. (1-3)

Titles will vary.

STATISTICS

Stat 145 [Math 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 119 or Math 120 and Math 106.

Stat 245 [Math 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.

Prerequisites: A grade of C (not C-) or better in Math 180 and CS 150L.

Also offered as Mgt 290.

MECHANICAL TECHNOLOGY

Mech T 101LT: Basic Welding. (3)

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

M A 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. Two hour lecture, one hour lab.

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 nontechnical 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 nontechnical 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 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. Music education majors must continue to enroll in this course until the piano proficiency examination is passed.

Prerequisite: 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. (1-3)

Titles will vary.

CR/NC

Music 293T*: Topics. (1-3)

Titles will vary.

MUSIC EDUCATION

Mus Ed 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 [NAS 150]: Introduction to Native American Studies. (3)

Examines the unique status of sovereign Native nations/tribes from pre-contact until 1871 and provides an introduction and foundation for understanding social, geographic, and linguistic differences among indigenous populations in North America from a Native 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 [NS 261]: 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 [NS 262]: 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 [NS 263]: 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 121L or Biol 123L, or Chem 111L or Chem 121L, or the equivalent.

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 245: Professional Ethics. (3)

Examination of social and ethical problems associated with the business, engineering, medical, and legal professions.

PHYSICAL EDUCATION NON-PROFESSIONAL

P E-NP 102: Intermediate Swimming. (1)

Instruction in all basic strokes. For students who can swim.

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 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 167: Basketball. (1)

Instruction and practice of basic skills.

P E-NP 170: Volleyball. (1)

Instruction and practice of basic game skills, with emphasis upon 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 & ASTRONOMY

ASTRONOMY

Astr 101: Introduction to Astronomy. (3)

The theme is cosmic evolution. It provides a guided tour of the universe to find out where and when we are in the cosmos. The presentation is descriptive and non-mathematical. It starts with an overview into people's ideas about the universe. After an inquiry into the origin and evolution of the solar system, a study of stars is made to find the place of the solar system in the Milky Way Galaxy. Finally, a history is presented of the physical, chemical, and biological evolution of the universe, from its beginning in a big bang to the possibility of life elsewhere in the Galaxy. Special topics may include black holes, interstellar communication, UFO's, and missions to the planets. No preparation is assumed. Important concepts of physics, chemistry, geology and biology are introduced in the context of the course. See Astr 101L for optional observations.

Astr 101L: Astronomy Laboratory. (1)

Intended as an adjunct to Astr 101, this course deals with elementary techniques in astronomical observations. 2 hrs. Pre- or corequisite: Astr 101.

PHYSICS

Physcs 102: Introduction to Physics. (3)

Designed for non-science students in all colleges as well as for students planning to major in the sciences who want a general introduction to the basic phenomena and concepts of physics. The treatment is primarily descriptive, with practical demonstrations and applications and with a minimum of elementary mathematics. No previous preparation is assumed. Basic physical concepts such as energy, momentum, and electric charge are discussed as well as the properties of gravitational, electromagnetic and nuclear forces, and wave phenomena. The basic ideas of relativity and quantum theory are introduced. See Physcs 102L for an optional laboratory.

Physcs 102L [112L]: Physics Laboratory. (1)

A physics laboratory offered in conjunction with Physics 102 for students desiring laboratory credit. Experiments and projects designed to explain basic physical concepts related to the atom, the environment, and the universe. 2 hr. lab.

Pre- or corequisite: Physcs 102.

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 [153]: General Physics Laboratory. (1)

Mechanics, sound, heat. 3 hrs. lab.

Pre- or corequisite: Physcs 151.

Physcs 152: General Physics. (3)

Electricity, magnetism, optics.

Prerequisite: Physcs 151.

Physcs 152L [154L]: General Physics Laboratory. (1)

Electricity, magnetism, optics. 3 hrs. lab.

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 [163L]: General Physics Laboratory. (1)

Mechanics, sound, heat. 3 hr. lab.

Pre- or corequisite: Physcs 160.

Physcs 161: General Physics. (3)

Heat, electricity, magnetism.

Prerequisite: Physcs 160; pre- or corequisites: Math 163.

Physcs 161L: General Physics Laboratory. (1)

Electricity, magnetism.

Prerequisite: Physcs 161; pre- or corequisites: Math 163.

CR/NC

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 corequisites: Math 264.

Physcs 262L [264L]: General Physics Laboratory. (1)

Electricity, magnetism, optics. 3 hrs. lab

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, communist, 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)

Description of the more salient aspects of the behavior and development of children and adolescents. Particular emphasis is placed on pertinent psychological research and practical applications to life situations.

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.

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 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 107: Living World Religions. (3)

Introduction to major living world religions, such as Buddhism, Christianity, Hinduism, Islam, and Judaism.

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 Russ 101 or equivalent. Continued development of all four skills.

Can be taken in conjunction with Russ 104.

Russ 103-104: Beginnings: Speaking Russian (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 203-204: Communicating in Plain Russian. (1, 1)

Developing survival skills in using Russian on a practical level. Eliciting and providing primary information and simple conversation. Essential for all minors and majors.

Pre- or corequisites: Russ 201-202.

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 and Society. (3)

The main objectives of this course are to introduce students to the study of crime, provide a basic knowledge of key criminology concepts, consider crime as a social problem, review the history of criminology and study the links between criminology and crime policy.

Prerequisite: Soc 101.

Soc 211: Social Problems. (3)

Sociological approaches to problems such as poverty, crime and delinquency, sexual behavior, mental disorders, drug use, corporate power, and other issues selected by the instructor.

Prerequisite: Soc 101. May not be repeated for credit toward a major or minor.

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 230: Society and Personality. (3)

The social psychology of personalities, relationships, small groups, and organizations.

Prerequisite: Soc 101.

SPANISH & PORTUGUESE

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)

The principle goal is to develop skills and knowledge in speaking, reading, writing and comprehending the Spanish language.

Span 201: Intermediate Spanish. (1-3 to a maximum of 3)

Conversational Spanish on the freshman and sophomore levels.

May not be used to satisfy language requirements.

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, 202, or 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.

THEATRE AND 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.

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. [Introduction to Theatre.] (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.

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 (Main 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 degree 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 in 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), Civil 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, video conferencing, 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 2nd week of classes
- Last day for changes in section.....end of 2nd week of classes
- Last day for drops without a grade....end of 6th week of classes
- Last day for withdrawal from a course without approval (WP/WF assigned).....end of 12th week of classes
- Last day for withdrawal from a course with Dean's or Program Manager's approval (WP/WF assigned).....end of 16th 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 or withdrawal/fail. 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 \$132.05 per credit hour and graduate courses, \$145.20 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.

Graduate and Upper Division Programs

Courses toward a Master's degree are available in

- Civil Engineering
- 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
- 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.

Graduate and Upper Division Programs

Program Manager

vacant

Administrative Assistant III

Marlene Kelley

MS, The University of New Mexico

Instructional Assistants

Ann Brandenberger

JD, Saint Mary's University

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The University of New Mexico

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Supervisor, Financial Aid

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Branch/Division Registrar

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MA, The University of New Mexico

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Irene Martinez
AAS, Northern New Mexico Community College
Constance Calloway

Administrative Services

Personnel Coordinator/Housing Coordinator

Betsy Allander

Bookstore Manager

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BA, The College of Santa Fe

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Manager

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Manuel Lopez
Victor Malmado
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UNM Extended University/LA

Manager

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Marlene Kelley
MS, The University of New Mexico

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MA, University of Arizona
Science and Technologies
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