Central New Mexico Community College

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CNM RIO RANCHO CAMPUS
Coming soon

cnm.edu

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WELCOME FROM THE PRESIDENT

Hello and thanks for taking a look at our course offerings at **Central New Mexico Community College!**

As a community college serving the state's most densely populated region, we are strongly committed to providing our very diverse community members with as many pathways as possible to educational and career success. We are here to help you achieve your individual goals, whatever they might be.

Some of you might be looking to take freshman and sophomore level classes at CNM in preparation for transferring to a university. Some of you might be looking to earn a certificate or an associate's degree in one of our many career-technical programs that will lead to new job opportunities. Some of you might need instruction from our caring faculty members to pass a GED test, which will open a new world of opportunities. Some of you high school-aged students might be seeking out our dual-credit offerings, which are more plentiful than any other higher education institution in the state. Or maybe you're just looking to learn more about general interest topics like your digital camera or how to spice up your cooking skills. Our Community Education program offers all kinds of quick and fun learning opportunities that will enhance your life.

In this course catalog, which contains more courses and more program offerings than any community college in New Mexico, we think you'll find the courses and the certificate or degree programs that will improve the quality of your life.

Since it opened in 1965, our college has always been known for its welcoming atmosphere; its caring and highly qualified instructors; its highly regarded programs that lead to good jobs in the local economy; and our unwavering commitment to the success of our students.

If you want to empower your life through education, our faculty and staff are here to help you make it happen.

Please take your time and browse this course catalog. I'm confident that you can find your course – not just in this catalog, but in life – by letting CNM be a part of your personal journey.

Sincerely,

Kathie Winograd

Kathie Winograd,

CNM President

ABOUT CNM

THANK YOU FOR YOUR INTEREST IN CENTRAL NEW MEXICO COMMUNITY COLLEGE (CNM)—AND WELCOME! Now in its fourth decade, CNM is an accredited community college offering courses in a variety of occupational, college transfer and adult/developmental education subjects.

For 2009–11, credit programs at CNM include:

- certificates in 90 business, health, technologies and trades occupations as well as short-term career and technical courses
- associate degrees in 45 occupational fields and arts and sciences
- college transfer courses in more than 30 arts and sciences disciplines transferable for freshman and sophomore credit at four-year institutions, and many career-technical programs
- remedial, preparatory and developmental classes for students preparing to meet admission requirements at CNM or other institutions

CNM also offers non-credit programs including:

- adult education basic skills (including English as a second language and GED exam prep)
- customized training and assistance to business through the CNM Workforce Training Center, (505) 224-5200
- workshops and support for learners over 50 through the Community Education program, (505) 224-5506

CNM also offers enrollment opportunities for high-school-aged students (see page 10). In addition, an increasing number of credit courses are offered online in innovative distance-learning formats designed to overcome barriers of time or space (see page 33).

HISTORY

Authorized by the New Mexico Legislature in 1963, CNM (formerly Albuquerque Technical Vocational Institute) was approved by district voters in 1964 to provide adults with the skills necessary to succeed and gain employment in the workforce. Since its inception, CNM career-technical programs in business, health, technologies and trades have continually been redesigned to provide students with the most current and relevant skills needed by local employers. Internships, co-op programs and apprenticeships have also provided thousands of students with excellent learning opportunities that enhance their career prospects.

CNM was accredited by the North Central Association of Colleges and Schools in 1978. Degree-granting power was approved for CNM by the State Legislature in 1986, signaling the college's transformation into a full-fledged community college. By the late 1980s, liberal arts had become CNM's fastest growing area and an increasingly important part of occupational instruction. Also during this period, the University of New Mexico began offering all its remedial courses through CNM.

Until 1979, CNM was part of Albuquerque Public Schools (APS), with the APS Board of Education doubling as the CNM Governing Board. The first election for an independent CNM board was held in September 1979. Board members are elected by voters in seven geographical districts within the college district, which includes all of Bernalillo County and part of Sandoval County.

CNM TODAY

With an enrollment of about 27,000, CNM is the second largest postsecondary institution in New Mexico. The Main Campus occupies 60 acres near downtown Albuquerque and the 42-acre Joseph M. Montoya Campus is in the Northeast Heights. Classes are also offered at our South Valley Campus, the Westside Campus and the CNM Workforce Training Center. CNM offers classes at various off-campus sites, including the University of New Mexico, Rio Rancho Mid-High, Edgewood Middle School and others. A new campus in Rio Rancho will open in 2010.

CNM's classrooms, libraries and laboratories are modern and comfortable. Each student has access to state-of-the-art equipment, especially computers. CNM programs, facilities and services are accessible to the disabled.

Advisory committees with representatives from local businesses help ensure that CNM students acquire the skills needed for success on the job and CNM helps graduates find jobs. CNM's graduate placement for 2006-07 was 95 percent (see chart on page 48). The college also cooperates with other two- and four-year schools on course and program articulation and student transfer.

Funding for CNM programs and most construction and equipment comes from a property tax levy in the college's service district and annual appropriations by the New Mexico Legislature. Tuition and fees are moderate and financial aid is available to those who qualify. Private contributions through the CNM Foundation, which provides scholarships to students, are increasing every year.

CNM's academic year is divided into three terms: fall (generally begins in August), spring (generally begins in January) and summer (generally begins in May). Short sessions and nontraditional schedules, including weekend classes, are available for many programs and courses. Online courses are also available.

CNM PHILOSOPHY ON GENERAL EDUCATION

CNM holds that the general education component of each degree or certificate program is critical to preparing students to live in and contribute to a dynamic, complex and multicultural world. In support of this philosophy, CNM is committed to providing student learning experiences meant to develop such abilities as critical thinking, communication (written and oral), application of technology, life skills and teamwork. In addition, the college provides coursework that allows students to explore the modes of inquiry of the major disciplines and have learning experiences that allow them to broaden their educational base. General education allows students to gain an appreciation of the creative arts, understand multicultural and diverse perspectives, articulate the human condition, analyze the natural world through mathematics and science, and make meaningful and ethical decisions. CNM intends that students who complete the general education requirement will possess the knowledge and mental skills essential to their development as an individual and global citizen.

STUDENT LEARNING OUTCOMES

Core Competencies

CNM has identified five core competencies that all CNM associate degree graduates will demonstrate upon completion of a program of study at CNM. These competencies represent the most deeply held values of the college. They help ensure that our graduates will be informed and committed citizens, valued employees and fully prepared transfer students.

Life Skills: Students' personal behavior will demonstrate the ability to make reasoned judgments, to be responsible for commitments and to understand the viewpoints of others. This includes professionalism, work ethic and citizenship.

Technology: Students will understand the limits, problems and possibilities associated with the use of technology and will have the tools necessary to evaluate and learn new technologies as they become available. This includes the ability to use computer-based technology to communicate, solve problems and acquire information.

Interpersonal Skills/Teamwork: Students will work and interact with others at a personal, professional and global level, demonstrating respect for individual and cultural differences while practicing civility, honesty and personal responsibility.

Critical Thinking: Students will demonstrate the ability to engage in the process of defining tasks and evaluating problems through the examination of information, application of computation skills and reflection on ideas for the purpose of reaching decisions.

Communication: Students will read, write, listen and use verbal skills to organize and communicate ideas and information in personal and group settings.

Program Exit Competencies

All programs of study at CNM have identified exit competencies that graduates will demonstrate upon completion of their programs of study. These competencies are consistent with employer expectations in the workplace. Exit competencies for each program are located at cnm.edu/exitcomp.

Together, the exit competencies and core competencies will ensure that CNM graduates demonstrate the necessary knowledge, skills and behaviors to be contributors to the workforce and society. These competencies represent an assurance to students and employers that programs are providing quality teaching and learning experiences at CNM.

ASSESSMENT

CNM is dedicated to ensuring that all academic course and curricula meet the highest level of relevancy and excellence. Thus, we are collectively committed to assessing student academic achievement of all core and program competencies by systematically reviewing data and improving curricula when needed. CNM conducts assessment activities in compliance with our accrediting body, the Higher Learning Commission, which requires students to participate in forums, portfolios, testing and surveys.

ACCREDITATION

CNM is accredited to grant certificates and associate of applied science, associate of arts and associate of science degrees by The Higher Learning Commission, a commission of the North Central Association (30 North LaSalle Street, Suite 2400, Chicago, Illinois 60602-2504; telephone (800) 621-7440; hlcommission.org).

ACADEMIC CALENDAR

A DETAILED CALENDAR IS AVAILABLE AT CNM.EDU

	FIRST DAY OF INSTRUCTION	LAST DAY OF TERM
FALL 2009	**August 31**	**December 17**
SPRING 2010	**January 11**	**May 6**
SUMMER 2010	**May 24**	**August 15**
FALL 2010*	**August 30**	**December 16**
SPRING 2011*	**January 10**	**May 5**
SUMMER 2011*	**May 23**	**August 14**

***Subject to change**

ENROLLING AT CNM

ADMISSION

Admission is the process of applying and being accepted to Central New Mexico Community College (CNM). Registration is the process of selecting courses, receiving and paying for a class schedule and completing enrollment at CNM. The following requirements and procedures do not apply to students taking non-credit classes.

CNM has an open admission policy that provides individuals the opportunity to enroll in the college's certificate or degree programs as well as individual courses. Students are considered for admission to CNM without regard to gender, race, color, national origin, religion, age, disability, immigration status, sexual orientation or marital status. However, individuals may be denied admission to CNM, enrollment in courses and/or programs and participation in certain CNM sponsored activities if it is determined that such access is likely to pose a serious threat to the safety of the applicant and/or members of the CNM community. Such determination would be made on a case by case basis by a review board under the guidance of the dean of students.

CNM's academic year is divided into three terms – Fall, Spring and Summer. Students are urged to apply for admission at least two months before registration begins.

Most full-time students attend school year-round until they finish their programs. In most programs, it is possible to take a term off, if necessary. However, students who interrupt their programs may not be able to resume their studies at the time they want, because classes they need may not be offered every term. An interruption in enrollment may also mean a change in program and graduation requirements upon the student's return.

General Admission Requirements

Any person seeking admission to CNM must meet one of the following criteria:

- be at least 18 years of age; or
- have a high school diploma from a U.S. high school* or foreign high school; or
- have a General Educational Development (GED) diploma; or
- have completed the requirements of a home-based school program; or
- qualify for one of CNM's High School-Aged Student Enrollment programs (see page 10).

Note: CNM does not issue I-20s (student visas) for international students to attend.

*The high school must be recognized by the state department of education in the institution's home state or by a regional accrediting agency approved by the New Mexico State Board of Education.

ENROLLMENT OPTIONS

Enrollment Status

A student's enrollment status is determined by the student's primary goal for taking courses at CNM. Admission staff and academic advisors are available to assist students identify and meet their educational goals.

Non-Degree Status: Those who do not want to earn a degree or certificate or have not yet chosen a major (degree or certificate program). Non-degree students may request to change to certificate/degree status and apply credits earned in non-degree status by completing a Declare a Major form.

Note: Non-degree status will not satisfy eligibility requirements for financial aid, veterans' educational benefits or other assistance.

Certificate/Degree Status: Those who have met the program entrance requirements listed below and have officially declared the major (program of study) from which they plan to earn a certificate or degree from CNM.

Certificates and Degrees

CNM offers the following types of certificate and degree programs (see page 64 for a complete listing):

- **Certificate:** A certificate program prepares students to enter skilled or paraprofessional occupations or to upgrade workplace skills and knowledge. A Certificate of Achievement is 1-15 credits; Certificate of Completion is 16-59 credits.
- **Associate of Applied Science (AAS) Degree:** An AAS degree program prepares students to enter either skilled or paraprofessional occupations or to upgrade workplace skills and knowledge. An AAS program is not intended to transfer to bachelor's degree programs, although certain courses may be accepted at some institutions.
- **Associate of Arts (AA) Degree:** An AA degree program is designed for transfer into a bachelor's degree program in arts and sciences, social or behavioral sciences or a professional field with such disciplines as its base.
- **Associate of Science (AS) Degree:** An AS degree program is designed for transfer into a bachelor's degree program in a technical, medical or professional field with such disciplines as its base.

Program Entrance Requirements

Any student wanting to enter into a CNM certificate and/or degree program must meet one of the following criteria:

- have a high school diploma from a U.S. high school (*Note: The high school must be recognized by the state department of education in the student's home state or by a regional accrediting agency approved by the New Mexico State Board of Education*); or
- have a General Educational Development (GED) diploma; or
- have an associate, baccalaureate or higher degree from a regionally accredited post-secondary institution in the United States; or
- have, on file at CNM, Accuplacer, ACT (English, math and reading) or SAT (verbal and math) placement scores dated within the last 5 years.

Note: The above-listed criteria may be different from that used to establish financial aid eligibility. Some programs have additional requirements (see programs of study section, page 64).

THE ADMISSION PROCESS

Before applying, review the CNM online Catalog for special program requirements.

1. Complete an online application available at cnm.edu.

(Non-U.S. Citizens must complete an application form available at any CNM Admissions Office. High school students interested in one of CNM's High School-Aged Programs, see page 10.)

Upon admission, students are assigned a CNM ID number and an e-mail account to access *my* CNM, the college-wide online enrollment and communication system.

Students wanting to apply for financial aid should access financial aid information and forms from CNM's website (cnm.edu) or at any Financial Aid and Scholarship Office as soon as possible in the admission process.

2. Take the Accuplacer placement exams or provide official ACT/SAT scores taken within the last five years

Accuplacer is a computer adaptive test used to assess skills in reading, English and mathematics. CNM uses this test to help students plan an appropriate schedule of coursework at CNM and meet course prerequisites. The test is not timed, but students should allow 1 1/2 to 2 hours to complete the set of exams. Accuplacer is available at any campus free of charge. Current photo ID is required to take the test. Practice exams are available at all Assessment Offices and online at cnm.edu.

Prerequisites are requirements that must be met prior to registering for many courses. They may be met with approved scores on placement exams – Accuplacer, ACT, SAT, by transfer of credit from another institution or by successful completion of a specific CNM course.

Transfer students may meet course prerequisites upon evaluation of their official prior college transcript. Though transfer students are not required to submit official transcripts for admission purposes. Students who want to transfer credits earned at other institutions or who need to provide proof of meeting a course prerequisite must have official transcripts sent to the CNM Records Office (see page 7).

Special exams for advanced placement into some biology and Spanish classes are also available.

Biology Placement Exam

The Biology Placement Exam is intended for students with significant prior experience in chemistry and biology. Passing the exam may allow a student to enroll in Biology 2110/2192 and/or Biology 2210/2292 without taking the Biology 1410/1492 and Chemistry 1410/1492 prerequisites. A grade of "B" or better in high school biology and chemistry within the last three years or significant background experience in these two areas is the suggested minimum preparation. Course placement based on the Biology Placement Exam must be approved by the School of Math, Science & Engineering.

Spanish Placement Exam

The Spanish Placement Exam is used to determine course placement depending on the skill level of the student.

3. Complete a New Student Orientation

Orientation is mandatory for all first-time college students. Students may attend an in-person orientation, held before the beginning of each term, or they may view CNM's online orientation at cnm.edu.

4. Meet with an academic advisor

Students should meet with an academic advisor (see page 20) to discuss program selection and/or course placement.

To Register for classes see The Registration Process, page 11.

TRANSFERRING TO CNM

TRANSFER AND OTHER CREDIT

Transfer Credit

Credits earned at other postsecondary institutions may be transferred and applied toward program requirements in accordance with the following guidelines:

- An official transcript from each institution attended must be sent directly to the CNM Records Office for evaluation.
- Credit for arts and sciences courses earned at regionally accredited postsecondary institutions will be evaluated automatically upon receipt of the official transcript (for admitted and currently enrolled students only). Courses with D or better grades earned at public New Mexico institutions will be considered for transfer credit; courses from institutions outside New Mexico and private institutions in New Mexico must have C or better grades to be considered for transfer credit.
- International transcripts: students must provide an evaluation by an approved agency of the National Association of Credential Evaluators or submit an original or officially certified transcript copy to the CNM Records Office. If the original document is in a foreign language, the student must submit an original, English translation certified by a member of the American Translators Association (atanet.org). Original or officially certified copies and/or translation must include a grade scale and explanation of academic term. Additional information is available at cnm.edu.
- To receive transfer credit for career and technical courses, the student must request that the CNM's Records Office refer the transcript(s) to the appropriate school for review. An interview and/or demonstration of competence may be required before the decision regarding credit is made. Demonstration of competence is required for all career and technical transfer credit more than 10 years old.
- Remedial and upper-division courses are not generally transferable.

Non-Traditional Credit

Students may be allowed to establish credit for courses based on life and work experience and/or prior training. Because opportunities to establish such credit vary by school, students interested in this option should contact their school office.

Examination Credit

CNM Challenge Exams: These exams are available to applicants and currently enrolled students who wish to establish CNM credit for prior education, training and/or experience. Other postsecondary institutions may not accept challenge exam credit. The fee for most exams is $15. The following restrictions apply:

- A student may attempt a challenge exam only once per course.
- A student may not take a challenge exam if, within the last 10 years, he or she completed the course at any school with a final grade, including AU but excluding W grades.
- A grade of CR will be recorded upon the student's completion of CNM credit coursework in the same or subsequent term.
- Courses successfully challenged may count toward program requirements, but not CNM's graduation residency requirement.

Contact the appropriate school office for information on Challenge Exams.

Advanced Placement (AP)/College Level Examination Program (CLEP): Students may earn up to 30 credits through Advanced Placement (AP) and College Level Examination Program (CLEP) tests. Earned AP and CLEP credit will be treated as transfer credit. For more information, contact an academic advisor or the CNM Records Office.

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

	Minimum Score for exams taken:			
CLEP Exam	**through June 2001**	**after June 2001**	**CNM Course**	**Credit Hours**
arts and sciences subject exams				
American Government	47	50	PSCI 2200	3
American Literature	46	50	ENG 2287, 2288	6
Analyzing/Interpret Lit	47	50	ENG 1150, 2250	6
Biology	46	50	BIO 1010	3
Calculus w/ Elementary Functions *(objective and problem portions)*	41	63	MATH 1710	4
Chemistry	47	50	CHEM 1710, 1792, 1810, 1892	8
College Algebra	46	50	MATH 1315	3
College Mathematics	n/a	50	MATH 1320	3
English Literature	46	50	ENG 2284, 2285	6
French Level 1	42	50	FREN 1101, 1102	8
French Level 2	45	59	FREN 1101, 1102, 2201, 2202	16
German Level 1	n/a	50	LANGUAGE ELECTIVE	6
German Level 2	n/a	60	LANGUAGE ELECTIVE	12
History of US I	47	50	HIST 1161	3
History of US II	46	50	HIST 1162	3
Human Growth and Development	n/a	50	PSY 2220	3
Humanities	n/a	50	HUMANITIES ELECTIVE	3
Information Systems and Computer Applications	n/a	50	IT 1010	3
Intro Educational Psychology	n/a	50	PSY ELECTIVE	3
Introductory Psychology	47	50	PSY 1105	3
Introductory Sociology	47	50	SOC 1101	3
Macroeconomics	44	50	ECON 2200	3
Microeconomics	41	50	ECON 2201	3
Precalculus	n/a	50	MATH 1415	4
Spanish Level 1	45	50	SPAN 1101, 1102	8
Spanish Level 2	50	63	SPAN 1101, 1102, 2201, 2202	14
Western Civilization I	46	50	HIST 1101	3
Western Civilization II	47	50	HIST 1102	3
Business Exams				
Principles of Accounting	45	50	ACCT 1110, 1210	9
Principles of Management	46	50	BA 1133	3
Principles of Marketing	50	50	BA 2222	3
Introductory Business Law	51	50	BA 2240	3

CLEP scores must be forwarded to the CNM Records Office. CLEP scores will only be accepted if they are: (1) sent directly from the CLEP Testing Center, or (2) sent directly from the CNM Assessment Center.

ADVANCED PLACEMENT (AP) EXAMS

AP Exam	Minimum Score	CNM Course	Credit Hours
Art History	3	ARTH 1101	3
	5	ARTH 2201, 2202	6
Art - Studio Art			
Drawing	3	ARTS 1106	3
2-D Design•	3	ARTS 1121	3
3-D Design•	3	ARTS 1122	3
Biology	3	BIO 1410, 1492	4
	5	BIO 1410, 1492 and BIO 1510/1592	8
Calculus AB	3	MATH 1710	4
Calculus BC	3	MATH 1710, 1715	8
Chemistry	3	CHEM 1710, 1792, 1810, 1892	8
Comparative Government	3	PSCI 2220	3
Computer Science A	3	CSCI 1151	4
Computer Science AB	3	CSCI 1151, 2251	8
Economics			
Macroeconomics	3	ECON 2200	3
Microeconomics	3	ECON 2201	3
English Language & Composition•	3	ENG 1101	3
	5	ENG 1101, 1102	6
English Literature & Comp	3	ENG 1101	3
	5	ENG 1101, 1102, 1150	9
Environmental Science	3	BIO 1110, 1192	4
European History	3	HIST 1102	3
French Language	3	FREN 1101, 1102	8
	5	FREN 1101, 1102, 2201, 2202	16
French Literature	3	FREN 1101, 1102	8
	5	FREN 1101, 1102, 2201, 2202	16
German Language	3	LANGUAGE ELECTIVE	6
Human Geography	3	GEOG 1102	3
Italian Language & Culture	3	LANGUAGE ELECTIVE	6
Latin: Literature	3	LANGUAGE ELECTIVE	6
Latin: Vergil	3	LANGUAGE ELECTIVE	6
Music Theory	3	MUS 1103	4
Physics B	3	PHYS 1510, 1592, 1610, 1692	10
Physics C			
Mechanics	3	PHYS 1710, 1792	5
Electricity & Magnetism	3	PHYS 1810, 1892	5
Psychology	3	PSY 1105	3
Spanish Language	3	SPAN 1101, 1102, 2201, 2202	14
Spanish Literature	3	SPAN 2280	3
Statistics	3	MATH 1330	3
U.S. Govt & Politics	3	PSCI 2200	3
U.S. History	3	HIST 1161, 1162	6
World History	3	HISTORY ELECTIVE	3

AP scores must be forwarded to the CNM Records Office. AP scores will only be accepted if they are: (1) sent directly from the AP Testing Center, or (2) included on high school or college transcripts as part of the student's permanent record.

Course Substitutions and Waivers

Course Substitutions: A course for which a student has already received credit may substitute for a required course in the student's program, if the substituting course meets the competencies of the required course. Course substitutions must be approved by the school in which the student's program is offered. If the substituting course has fewer credit hours, the student may be required to make up the credit difference with appropriate coursework identified by the school (see *Graduation*, page 46).

Course Waivers: A course waiver is an exemption from a required course because the competencies of the course have already been attained due to prior training, education and/or work experience. Demonstration of competencies will be required. A course waiver must first be approved by the school in which the student's program is offered then secondly, by the school in which the waived course is offered. Credit waivers do not require the student to make up the deficient credit(s) however; there are limits to the number of credits that can be waived in a program (see *Graduation*, page 46).

Transfer Among New Mexico Higher Education Institutions

To facilitate the 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-state transfer courses taken within approved modules of lower-division course work and apply them toward degree requirements. New Mexico's colleges and universities have developed transfer guides, consistent with requirements of state law (21-1B, NMSA 1978), to assist students who plan to transfer. Additional information about how previous college course work transfers to CNM and how CNM courses and programs transfer to other New Mexico colleges and universities is available at cnm.edu\transferout.

Because not all CNM courses are designed to transfer to other colleges and universities, students planning to transfer from CNM to a two- or four-year college or university in New Mexico should meet with an academic advisor. Advisors can assist students in choosing which CNM classes will best meet their educational plans.

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 coursework will meet the requirements of the desired degree.

Transferable Lower-Division General Education Common Core

Students 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 with an academic advisor about 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.

Lower-Division General Education Common Core

Area I: Communications (select 9 credit hours)

(a) College-Level English Composition• ..... 3–4 hours
(b) College-Level Writing (a second course building on the above) ..... 3 hours
(c) Oral Communication• ..... 3 hours

Area II: Mathematics (select 3 credit hours)

(a) College Algebra ..... 3 hours
(b) Calculus ..... 3 hours
(c) Other College-Level Mathematics ..... 3 hours

Area III: Laboratory Science (select 8 credit hours)

(a) General Biology, with laboratory ..... 4–8 hours
(b) General Chemistry, with laboratory ..... 4–8 hours
(c) General Physics, with laboratory ..... 4–8 hours
(d) Geology/Earth Science, with laboratory ..... 4–8 hours
(e) Astronomy, with laboratory ..... 4–8 hours

Area IV: Social/Behavioral Sciences (select 6–9 credit hours)

(a) Economics (macro- or micro-) ..... 3 hours
(b) Introductory Political Science ..... 3 hours
(c) Introductory Psychology ..... 3 hours
(d) Introductory Sociology ..... 3 hours
(e) Introductory Anthropology ..... 3 hours

Area V: Humanities and Fine Arts (select 6–9 credit hours)

(a) Introductory History Survey ..... 3 hours
(b) Introductory Philosophy ..... 3 hours
(c) Introductory Course in History, Theory, or Aesthetics of the Arts or Literature .. 3 hours

Total to be selected ..... 35 semester hours

Lower-Division Transfer Modules

Students who have selected a field of study but have not yet selected the college or university where they wish to earn a bachelor's degree are advised to take courses during their freshman and sophomore years outlined in one of the Lower-Division 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 an academic advisor about which specific classes fit these categories. Lower-division transfer modules presently exist for: business, engineering, biological sciences, social and behavioral sciences, teacher education, early childhood education and physical sciences. Copies of these Transfer Modules may be obtained from the State of New Mexico Higher Education Department's website (hed.state.nm.us).

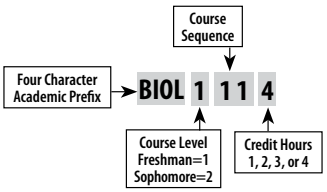
Transferable Courses Fulfilling the General Education Common Core

During the 2005 New Mexico Legislative session, Senate Bill 161, consistent with requirements of state law (Chapter 224 of the Laws of New Mexico, 1995 as amended) was signed into law to further enhance and facilitate the articulation of general education courses among New Mexico's colleges and universities. In accordance with policies established by the New Mexico Higher Education Department, designated general education courses successfully completed at any regionally accredited public institution of higher education in New Mexico are guaranteed to transfer to other New Mexico public institutions.

A Core Matrix of approved courses guaranteed to transfer and meet general education requirements at any New Mexico college or university can be found on the New Mexico Higher Education Department website at hed.state.nm.us. Courses are listed by institution.

The course prefix and number that appear in parenthesis next to many of the institutions' internal course prefixes and numbers is the New Mexico Common Course Number. It serves as a single reference point for courses taught throughout the state that share substantially equivalent content. Courses bearing this designation are part of a statewide equivalency table that cross-references the institutional course and number with the universal "common course number," creating an easy one-to-one match.

Students may find the New Mexico Common Course Number listed in crosswalks, degree outlines, transfer guides and in course descriptions in college catalogs and websites. The common course number "connects" equivalent courses at multiple institutions, ensuring students that the course will transfer to the receiving institution and meet degree requirements as if it were taken on that campus. The New Mexico Common Course Number has an alpha prefix that identifies readily to the subject area. The four digits in the number represent the specific course in that subject area with each digit having significance as demonstrated below:



Students who have decided on a major and/or an institution at which to complete their studies should obtain a transfer guide or catalog and consult with an academic advisor at that particular institution to determine the most appropriate course selections. Students enrolling for the first year of study at a New Mexico college or university and considering possible transfer into a certificate and/or degree program at another institution are encouraged to take the courses approved for transfer during their freshman and sophomore years of study.

Transfer Credit Appeal

All New Mexico public postsecondary institutions are required to establish policies and practices for receiving and resolving appeals and complaints from students or from others regarding the transfer of course work from other public institutions in the state. CNM's appeal process is as follows:

- For arts and sciences course evaluations, complete a Re-Evaluation of Transfer Credit form, available at the Records Office, Admissions Offices or online at cnm.edu.
- For career and technical course evaluations, file a written appeal with the appropriate academic dean's office providing the prefix/number of the course(s) in question, term and year the course was taken, the name of the course and the course description from sending institution's catalog.
- If the request is denied, the student may continue the appeal process to the executive vice president of Academic Affairs and must do so no later than 30 days following the notification of denial.
- The executive vice president's office, in concert with the appropriate school and/or content area, will review applicable materials and render a final decision.
- If the course or courses in question are part of a state-approved transfer module, the student may make further appeal to the Higher Education Department in Santa Fe by contacting:

  Deputy Secretary for Academic Affairs Higher Education Department
  2048 Galisteo St.
  Santa Fe, NM 87505-2100

If a student's articulation appeal is upheld at that level and the student was required to repeat the course, the receiving institution shall reimburse the student the complete cost, including tuition, books and fees of each course the student was required to repeat at the receiving institution.

HIGH SCHOOL-AGED STUDENT ENROLLMENT PROGRAMS

DUAL CREDIT PROGRAM AND COLLEGE AND CAREER BOUND PROGRAM

CNM's High School-Aged Student Enrollment Programs each provide qualified high school-aged students who reside in CNM's service area the opportunity to enroll in college classes at CNM. Credits earned may be applied toward a CNM certificate and/or degree and most are transferable to other colleges. Students enrolled in either of these programs are subject to all CNM policies and regulations. Information on the requirements and enrollment process for these programs is available at any Admissions Office, online at cnm.edu or from the School Relations Office at (505) 224-3327 or cnm.edu/depts/academicaffairs/oeu/High_School_Programs.php.

Dual Credit Program

Dual Credit provides high school sophomores, juniors and seniors who attend a public high school (with whom CNM has a Dual Credit agreement) half-time or more and qualify for New Mexico in-state tuition status, the opportunity to take college courses for which they will simultaneously earn both college credit and high school elective credit. Students should see their high school counselor for Dual Credit information.

- Dual Credit students are often able to complete a college certificate or degree more quickly because they start college while in high school.
- Dual Credit students may only enroll in courses numbered 1000 and above.
- Dual Credit students may enroll in a maximum of 18 credits per term.
- Dual Credit students have their registration, tuition and distance learning fees waived. (The student pays for any additional course fees.)
- Dual Credit students have their textbooks provided by their high school.
- Dual Credit admission and registration can be processed online and at any CNM campus.

College and Career Bound Program

College and Career Bound provides high school sophomores, juniors and seniors who attend a private school or a public high school, or are currently home-schooled students and at least 16 years of age, the opportunity to earn college credit.

- College and Career Bound students are often able to complete a college certificate or degree more quickly and with less expense because they start college while in high school or home school.
- College and Career Bound students must pay all tuition and fees.
- College and Career Bound students may only enroll in courses numbered 0900 and above.
- College and Career Bound students may enroll in a maximum of 18 credits per term.
- College and Career Bound admission and registration can be processed online and at any CNM campus.

YOUR FIRST YEAR AT CNM

Making the transition to college can be a challenging and exciting time. CNM recognizes that a positive first year experience can greatly impact student success and satisfaction, academic performance, and progress toward graduation. CNM's First Year Experience, housed in the School of Adult & General Education (SAGE), welcomes students to the college and supports them throughout their first year at CNM.

The program includes the following services for students:

- Academic Advising
- Achievement Coaches
- Adult Education (ESL or GED) Courses
- Center for Working Families Services
- College Success Experience (CSE) Courses
- Orientation Programs
- Outreach Services
- Special Services
- Summer Transition Classes
- Tutoring Services

For more information, contact The School of Adult & General Education at (505) 224-3939 at Main Campus or (505) 224-5993 at Montoya Campus; or Academic Advisement and Career Development at (505) 224-4321.

REGISTRATION

Registration is the process of formally selecting and paying for classes. To register for classes, students must have attended CNM credit classes within the past year or be admitted for the term in which they plan to attend. Registration and payment of fees must be made in accordance with the instructions and deadlines found in the *Schedule of Classes*. Individuals may not participate or "sit in" on classes for which they are not registered.

THE REGISTRATION PROCESS

1. Receive information on registration.

Access *my* CNM, available from CNM's homepage at cnm.edu. Registration information is emailed to continuing students and those admitted prior to the start of registration; all other students are given registration information at the time of admission. Registration dates are posted online in the Registration/Grades tab of *my* CNM. Registration begins approximately two months before the start of a term.

2. Plan your schedule.

Refer to the Catalog for program requirements and course descriptions that include prerequisites and corequisites (see below). Refer to the *Schedule of Classes* for a list of classes and their CRN (Course Reference Number), registration instructions and dates. Both are available online in the Registration/Grades tab of *my* CNM. The *Schedule of Classes* is available approximately two weeks before the start of registration for each term. Schedule plans should have alternate sections and insure that all course pre- and corequisites are met.

3. Meet with an advisor.

Academic advisement is strongly recommended for all students before registering for classes. Advisors at all campuses can provide assistance with course selection and placement.

4. Register for classes.

Register for classes through the Registration/Grades tab of *my* CNM. An online tutorial provides step by step instructions.

5. Pay tuition and fees.

In order to complete registration, all charges must be paid. Charges are based on the student's residency classification for tuition purposes, the type of courses and number of credit hours taken (see page 14). Payment information and deadlines is available in the *Schedule of Classes*.

After Registering for Classes

- Obtain a CNM student ID card
- Purchase textbooks
- Check out the transportation channel in *my* CNM for information about parking on campus, bus routes and passes, and/or bicycle routes
- Access *my* CNM often for special announcements and emails regarding your enrollment at CNM

PREREQUISITES AND COREQUISITES

Pre- and corequisites are listed in course descriptions and are subject to change with each new catalog. It is the student's responsibility to meet the pre- and/or corequisites in effect for the term in which a course is taken, regardless of the catalog under which the student entered or will graduate. Students may be stopped from enrolling or may be disenrolled if pre- or corequisites are not met.

Prerequisite: A prerequisite is a requirement that must be successfully completed before a student may enroll in a course. Prerequisites are based on the essential skills or competencies to be successful in the next level course. All prerequisite courses must be completed with a "C" or better grade. A "Recommended" prerequisite is one that is strongly suggested for successful completion of the course, but is not required.

Most entry-level courses have prerequisites for math, English or reading. See "How to Meet a Course Prerequisite" below.

Corequisite: A corequisite is a course that is either recommended or required to be taken in combination with another course. If a course with a required corequisite is taken for audit, the corequisite also must be taken for audit. When a course that has a required corequisite is dropped, the corequisite must also be dropped.

How to Meet a Course Prerequisite

There are four ways to meet a course prerequisite:

1. Take the Accuplacer placement exam at CNM (see Assessment Centers on page 20). Accuplacer scores cannot be more than fives years old.
2. Submit official ACT or SAT scores (no more than five years old) to any Admissions Office.
3. Enroll in the required prerequisite course and pass it with a grade of CR or C or higher.
4. Complete the required prerequisite course at another institution with a grade of C or higher (proof of completion may be required).

Speak with an academic advisor for further assistance with prerequisite and course placement.

REGISTRATION GUIDELINES

Adding, Changing and Declaring Majors: Students may add, change and/or declare a major (program) at any time during the term in which they are enrolled (see *Program Entrance Requirements* on page 6). To graduate from a CNM program, students must have declared their major at the time of admission, by submitting a Declare a Major form (available online at cnm.edu), or when completing an application for graduation (see *Graduation: General Requirements*, page 46).

Adding Courses: Classes may be added according to the time frame and dates listed in the *Schedule of Classes*.

Cancellation of Enrollment Before Term Begins: Students not able to attend CNM when planned but who have registered for classes must drop all classes through the online registration system in *my* CNM before the beginning of the term.

PREREQUISITE REQUIREMENT GUIDE

Required Prerequisite*	Ways to Meet Prerequisites
ENG 0550	• ENG 0550 or above with CR or C or better • Accuplacer sentence skills score of 53-68 or Accuplacer reading score of 59-68 • ACT English score of 12-13 or SAT verbal/critical reading score of 260-280 or ACT reading score of 14-15
ENG 0750	• ENG 0750 or above with CR or C or better • Accuplacer sentence skills score of 69-84 • ACT English score of 14-15 or SAT verbal/critical reading score of 290-320
ENG 0950	• ENG 0950 or above with CR or C or better • Accuplacer sentence skills score of 85-109 • ACT English score of 16-22 or SAT verbal/critical reading score of 330-450
ENG 1101	• ENG 1101 or above with CR or C or better • Accuplacer sentence skills score of 110 • ACT English score of 23 or SAT verbal/critical reading score of 460
MATH 0550	• MATH 0550 or above with CR or C or better • Accuplacer arithmetic score of 31-56 • ACT math score of 13-14 or SAT quantitative/math score of 290-310
MATH 0750	• MATH 0750 or above with CR or C or better • Accuplacer arithmetic score of 57-120 or Accuplacer Elementary Algebra score of 31-71 • ACT math score of 15-16 or SAT quantitative/math score of 320-340
MATH 0930	• MATH 0930 or above with CR or C or better • Accuplacer elementary algebra score of 72-80 • ACT math score of 17-20 or SAT quantitative/math score of 350-410
MATH 0940	• MATH 0940 or above with CR or C or better • Accuplacer elementary algebra score of 81-120 • ACT math score of 21-22 or SAT quantitative/math score of 420-450
MATH 0950	• MATH 0940, 0950 or above with CR or C or better • Accuplacer elementary algebra score of 81-120 • ACT math score of 21-22 or SAT quantitative/math score of 420-450
MATH 1310	• MATH 1310 or above with CR or C or better • Accuplacer college level math score of 60 • ACT math score of 23 or SAT quantitative/math score of 460
MATH 1315	• MATH 1315 or above with CR or C or better • Accuplacer college level math score of 86 • ACT math score of 25 or SAT quantitative/math score of 500
MATH 1410 AND MATH 1415	• MATH 1410 and 1415 or above with CR or C or better • Accuplacer college level math score of 100 • ACT math score of 27 or SAT quantitative/math score of 540
RDG 0750	• RDG 0750, 0950 or arts and sciences course with CR or C or better • Accuplacer reading score of 69-79 • ACT reading score of 16-17 or SAT verbal/critical reading score of 300-320
RDG 0950	• RDG 0950 or arts and sciences course with CR or C or better • Accuplacer reading score of 80-120 • ACT reading score of 18-36 or SAT verbal/critical reading score of 330-800

**Other prerequisites are listed in course descriptions in this catalog.*

Course Load: The normal course load for a full-time college student in a regular term is 12 to 18 credit hours. Students wishing to take more than 18 credit hours must meet the following conditions:

- Have a college-level cumulative grade point average of 2.5 and
- Have no grade lower than a C in the last term enrolled in college *and*
- Secure permission from Academic Advisement and Career Development.

First time college students may not enroll in more than 18 credit hours in a regular term. No student may take more than 22 credits hours in a regular term or more than 20 in a summer term.

Course Repetition Limit: A student may, in most cases enroll in the same CNM course two times without restriction. If a student attempts to enroll a third time for the same course, registration will be blocked, and the student will be referred to the appropriate school for evaluation of the request. No student will be allowed to enroll in a course more than four times.

Topics, problems, internships, cooperative education, court reporting, art studio (except ARTS 1102) and physical fitness education courses are exempt from the course repetition limit (see *Repeat Course Processing*, page 41). Many programs in the School of Health, Wellness & Public Safety (see page 56) have more restrictive course repeat policies. Students should refer to the program's student manual for details.

Dropping Courses: Classes may be dropped according to the time frame and dates listed in the *Schedule of Classes*.

Fifteen-week and full-term classes dropped on or before the 15th day of that part of term/session (including Saturdays) and all other classes dropped on or before the first 1/3 of that part of term/session (including Saturdays) do not appear on the student's CNM transcript. After that time a withdrawal grade (W) will appear on the student's record for classes dropped. Specific dates are listed in the *Schedule of Classes*.

A student should not assume he/she will be dropped from classes for nonattendance. A student who has not officially dropped a class will receive a final grade in the class. A student physically unable to drop a current class by the published deadline (Example: hospitalization) may submit a written appeal, along with required supporting documentation, to the Registration Center requesting an exception to the drop deadline policy. Appeal forms are available in the Registration/Grades tab of *my* CNM.

Grade Options: Students must select a grade option (grade mode) when registering for class (see page 41). Deadlines and information regarding changing grading options are listed in the *Schedule of Classes*.

Permission to Enroll: Students may enroll in some courses only by permission of the instructor or program director. Forms are available in the instructional school offices. Permission to enroll does not constitute a waiver of a course, grant credit for another course, allow a course to be overfilled or extend registration deadlines.

Step-ups/step-backs: Students may, with school approval, step-up or step-back into most developmental courses (courses numbered 0999 and below) through the second week of the term and into some lower-level career and technical courses (in the same discipline) through the fifth week of the term. Students may, however, step-up or step-back into a self-paced, developmental math course through the tenth week of a full term and the eighth week of the 12-week session or term. Students who are having difficulty in a class and are considering this option should contact the instructor or their achievement coach.

RESIDENCY CLASSIFICATION FOR TUITION PURPOSES

A student is classified as a resident or non-resident for tuition purposes based on information supplied at the time of admission or re-admission. All residency requirements must be met before the first day of the term.

The New Mexico Higher Education department establishes residence requirements for tuition purposes. These requirements apply to U.S. citizens, those with Permanent Resident immigration status or those who have applied for Permanent Resident status. Residency requirements and information are available in Admissions offices and from the New Mexico Higher Education department's Web page at hed.state.nm.us.

Minimally, four basic requirements must be met (additional requirements may apply):

1. The 12-Month Consecutive Residence Requirement: A student must physically reside in New Mexico for the 12 consecutive months immediately preceding the term for which the petition is submitted.
   Note: Students whose parents or guardians reside out of state cannot begin to complete the 12-month requirement until their 19th birthday.
2. The Financial Independence Requirement: Students cannot be approved for residency if they are financially dependent on their parents or legal guardians 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 may be required.
3. The Written Declaration of Intent Requirement: The student must sign a written declaration of intent to relinquish residency in any other state and establish it in New Mexico.
4. The Overt Act Requirement: Residency regulations require the completion of overt acts that support the student's declaration of intent to reside in New Mexico. Information on the number and type of required overt acts is available in the Admissions and Records Offices.

Note: Any act considered inconsistent with being a New Mexico resident– such as voting, securing and/or maintaining a driver's license and any vehicle registration in another state-will cause in-state residency status to be denied or revoked. Nondisclosure or misrepresentation in filling out the Admission Form is grounds for denial of admission, cancellation of registration or suspension.

Additional Residency Information

- An individual married to a legal resident of New Mexico and providing appropriate evidence shall not be required to complete the 12-month durational requirement but must satisfy all other requirements.
- Any person, their spouse and dependents who move to New Mexico or who now live in New Mexico and who provide appropriate evidence that they work in a permanent full-time position or practice a profession or conduct a business full-time in New Mexico, shall not be required to complete the 12-month durational requirement but must satisfy all other requirements.
- Any person entering the active service of the United States while a resident of New Mexico and who enters a state institution of postsecondary education in New Mexico after separation from such service may be classified as having been a legal resident in New Mexico during the time spent in the service, provided they:
  - Have not while in the service done anything (such as voting in another state) to show abandonment of their New Mexico residency;
  - Have not established residence in some other state subsequent to being separated from service;
  - Return to New Mexico within one year after separation from service with the intention of maintaining this state as their legal residence;
- Are not a dependent minor with parent(s) or guardian(s) whose place of residence classifies him or her as a nonresident of New Mexico.
- Any person who is at least 65 years of age, their spouse and dependents, who move to New Mexico for retirement purposes, or who provide appropriate evidence of retirement, shall not be required to complete the 12-month durational requirement but must satisfy all other requirements.
- American Indian nations, tribes and pueblos: All out of state members of an American Indian nation, tribe and pueblo, located wholly or partially in New Mexico, regardless of the residence of the member prior to acceptance at a post-secondary educational institution shall be eligible to pay the in-state tuition rate. These include members of the following tribes or pueblos: Jicarilla Apache, Mescalero Apache, Taos Pueblo, Picuris Pueblo, Ohkay Owingeh, Santa Clara Pueblo, Nambe Pueblo, San Ildefonso Pueblo, Pojoaque Pueblo, Tesuque Pueblo, Cochiti Pueblo, Jemez Pueblo, Santo Domingo Pueblo, San Felipe Pueblo, Zia Pueblo, Santa Ana Pueblo, Sandia Pueblo, Isleta Pueblo, Laguna Pueblo, Acoma Pueblo, Zuni Pueblo and the Ute Mountain Tribe.
- Navajo Nation: All out of state members of the Navajo Nation who reside on the Navajo reservation, as certified by the Navajo Department of Higher Education, will be assessed in-state tuition rates.
- Armed Forces: Any person, their spouse or dependent child, not otherwise entitled to claim residence, who is a member of the armed forces of the United States or armed forces of a foreign country assigned to active duty in the state of New Mexico will be assessed in-state tuition rates.
  - Assignment to active duty within New Mexico must be certified by the military person's commanding officer upon the student's initial enrollment. Such students may continue paying resident rates for as long as they attend consecutive semesters at the same institution.
  - A spouse or child of an active member of the armed forces who dies or is killed becomes a resident of New Mexico within sixty (60) days of the date of death.
  - If an active member of the armed forces is stationed outside New Mexico following assignment to duty in New Mexico and the member's spouse or child established residence in New Mexico and registers a letter of intent to establish and continue residing in New Mexico, the spouse or child shall be assessed in-state tuition rates.
- National Guard: An active member of the National Guard and the member's spouse and children shall be deemed in-state residents for purposes of determining tuition and fees.
- New Mexico High School/GED Graduates: All persons, regardless of immigration status, who have attended a secondary educational institution in New Mexico for at least one year and who have either graduated from a New Mexico high school or received a general educational development certificate (GED) in New Mexico will be assessed in-state tuition rates.

Petitions for New Mexico Residency for Tuition Purposes

A nonresident student who believes he/she has satisfied the residency requirements may obtain a "Petition for Resident Tuition Classification" and the checklist of required supporting documentation online at cnm.edu, from the Main Campus Records Office or Admissions office at all other campuses. All residency requirements must be met before the first day of the term in which the student petitions. Petitions must be submitted no later than the 15th day of the term for which the petition is being filed. A petition received after that date will not be considered. The completed petition and required supporting documentation must be submitted to the Main Campus Records Office or the Admissions office at all other campuses. A student may be requested to supply additional information or to explain apparent inconsistencies before a final decision is reached. The student is notified of the decision and, if denied, may amend his/her petition with additional information and/or appeal to CNM's Residency Appeals Committee. The appeals committee shall be the student's last recourse prior to the courts. If the student satisfies the residency requirements for a future term, he/she may re-petition for residency for that term.

TUITION AND FEES

Tuition charges are based on:

- the student's residency status (tuition classification)
- where the student resides
- the number and type of credit hours enrolled
- certain types of schedule changes

Fees are charged according to:

- whether a course is classified as "academic transfer" or "career and technical"
- the program in which the student is enrolled

All students are charged a technology use fee for each credit enrolled and a registration fee each term in which they enroll.

Information on tuition rates; course, enrollment-related fees and processing fees; senior citizens discounts; payment methods; CNM's refund policy; transcript fees and more is available at cnm.edu.

FINANCIAL AID

The mission of Financial Aid and Scholarship Services (FASS) is to provide prompt, accurate and courteous financial aid assistance. Primary responsibility for educational costs has always rested with the student and his or her family; however, CNM, the federal government, and the state of New Mexico are dedicated to assisting students pursue a higher education. Students applying for financial aid should complete a Free Application for Federal Student Aid (FAFSA) available online at fafsa.ed.gov. Computers are available at all campuses and help is available at Main, Montoya and Westside campuses.

To optimize your opportunities for financial aid at CNM, complete your FAFSA by May 1st every year. Please visit the CNM website at cnm.edu for the most recent financial aid information. Graduating high school students as well as first time and returning CNM students can file for financial aid before applying for admission.

The following is a summary of available financial aid policies and programs.

General Eligibility Requirements

To receive financial aid a student must:

- Be a U.S. citizen or an eligible non-citizen
- Have a high school diploma, GED, have been home-schooled, or have achieved a passing score on all three components of the Accuplacer exam-in a single sitting. If all three scores are not achieved in one sitting, the student must retest.
- Not be enrolled in elementary or secondary school
- Not have been overpaid on a grant or be defaulted on a loan
- Maintain satisfactory academic progress defined by federal regulations.
- Enroll in eligible courses defined by the institution. A list of ineligible courses is available at cnm.edu/depts/fass/requirements/
- Enroll in an eligible program of study
- Not exceed federal aggregate loan limits defined by federal regulation

For a complete list of eligibility requirements go to studentaid.ed.gov, click on Applying for Financial Aid on the left menu, then on Funding Your Education, then Student Eligibility on the right.

All financial aid awards are based on information provided by the student, on the availability of funds, and on general eligibility requirements. Any award may be revised based on changes in enrollment, cost of attendance, family contribution or failure to meet satisfactory academic progress. Withdrawals or changes in enrollment may affect an award or any future awards.

Grants

- The Federal Pell Grant generally provides funds to undergraduate students without a bachelor's degree. Pell awards depend on enrollment status, cost of attendance, and family contribution.
- Students who receive Federal Supplemental Educational Opportunity Grants (SEOG) must demonstrate exceptional financial need and have the lowest expected family contribution.
- State Student Incentive Grant (SSIG) recipients must demonstrate financial need, be New Mexico residents, and be enrolled at least half time.

- The Academic Competitiveness Grant (ACG) provides up to $750 for first year undergraduate study and $1,300 for second year undergraduate students who are eligible for a Federal Pell Grant and have successfully completed a rigorous high school program after Jan 1, 2005. Second year students must also maintain a cumulative GPA of at least 3.0.
- The New Mexico College Affordability Grant (NMCAG) is designed for need-based New Mexico students who do not qualify for other state grants or scholarships.
- Students cannot receive an SSIG, SEOG or NMCAG simultaneously.
- The FAFSA is the only application needed to apply for these grants.

Loans

Federal Subsidized and Unsubsidized Stafford Loans, Nursing Student Loans for Service, and Federal PLUS loans all require separate applications. Before applying for a loan, a student must first complete the Free Application for Federal Student Aid (FAFSA). Students receiving a loan must be enrolled for six (6) financial aid eligible credit hours. Congress also establishes loan limits that may be prorated depending on a student's classification. All first-time borrowers must complete an entrance interview before loans are processed. First-time borrowers, students who have requested a change in lender, or students who have not borrowed within the last 10 years must complete a Master Promissory Note (MPN) before funds will be disbursed. Students who meet subsidized loan eligibility requirements may borrow up to $3,500 per year as first year students and $4,500 per year as second-year students; second year or sophomore students are students who have completed 30 credits of college-level coursework. Independent students who meet unsubsidized loan eligibility requirements may borrow an additional $2,000 for a total of $6,000 per academic year. Dependent students who meet unsubsidized loan eligibility requirements may borrow up to $2,000 in additional funds per academic year. .

Student Employment

CNM offers student employment (sometimes referred to as workstudy) to students who want to work on campus while they are attending CNM. Students are paid every two weeks and can work a maximum of 20 hours a week at an hourly rate. Student employment earnings are taxable.

Eligibility

To qualify for student employment and maintain eligibility, students must:

- Have a complete financial aid file
- Maintain Satisfactory Academic Progress
- Have Unmet Need determined by the FAFSA and CNM
- Maintain continuous half-time enrollment (6 eligible credit hours)
- File a new FAFSA for the upcoming Fall term early enough that their financial aid file is complete by June 30. If not, students will be not be able to continue working after June 30th until their financial aid file is complete.

Hiring Process

Before students can apply for a student employment position, they must be awarded student employment funds, which can be found on their award letter under the headings Federal Work Study, State Work Study, or CNM Student Employment. If a student has not been awarded one of these funds, they must follow the Online Award Request Instructions. Students needing assistance may receive help at our Student Resource Center.

All available student employment positions are listed by campus by clicking on Student Employment on the menu at the left at cnm.edu/depts/fass/. Once a job is found, print out the Student Employment Job Posting and Referral Form and contact the listed supervisor to request an interview. The supervisor will verify your student employment award and set up an interview. Keep in mind that there are a large number of applicants for these jobs. It may take a few interviews before hiring.

Students may submit the signed supervisor referral form, a picture ID, and Social Security card to the Financial Aid and Scholarship Services office (FASS) at Main, Westside, or Montoya campuses. Students need to complete a W-4 (IRS withholding form) and I-9 (Citizenship Verification form), then FASS will notify the supervisor if and when a student may begin working and your supervisor will then arrange a start date.

Veteran's Affairs Education Benefits

CNM is fully certified by the state of New Mexico for VA Education Benefits (G.I. Bill). Students must declare a certificate or degree program and can be paid only for classes that are required (including prerequisites) for that program. Students receiving a grade of "F" or "NC" on any course must submit to the CNM VA office one of the following forms: Proof of Completion or Last Day of Attendance. Undecided, non-degree and non-required electives, optional or previously passed courses are not eligible for VA education benefits.

Students are paid based on the number of credit hours taken and the length of the term. To ensure full payment, students may want to attend full-term classes. If a student takes courses with different beginning or ending dates, payment will be adjusted accordingly. Students drawing VA education benefits may also qualify for other forms of financial aid. A one-time only deferment may be available for students to defer the cost of classes. Book costs are not covered.

For further information, visit or call (505 224-3090) veterans assistance personnel in the Financial Aid and Scholarship Services Office at Main Campus. Information about VA Education Benefits in general can also be found at:

VA Education Toll-Free Number……1-888-GI-BILL-1

VA Website……...gibill.va.gov

All forms associated with VA Education Benefits can be obtained from the Veterans' Assistance section of the Financial Aid and Scholarship Services Office at Main Campus. Some forms may be available at the Financial Aid and Scholarship Services Office at other campuses. Local forms are also available online at cnm.edu under Cost & Financial Aid.

Scholarships

CNM offers a wide variety of scholarships to help defray the cost of attendance and to encourage students to complete their degree or certificate at CNM. CNM awards scholarships based on student eligibility and availability of funds, at the same time making certain that students are assisted in the most beneficial manner possible. Scholarships include the Bridge to Success, the Legislative Lottery, CNM Legislative, CNM Daycare and CNM General Scholarship as well as numerous CNM Foundation scholarships.

The Bridge to Success and the Legislative Lottery Scholarship are offered to New Mexico high school graduates and New Mexico GED recipients who attend CNM the first term after high school graduation or the completion of their GED. The Bridge to Success Scholarship pays fall tuition and registration fees for students who are registered at CNM by June 1st, who have completed the Free Application for Federal Student Aid (FAFSA) by August 1st and who are enrolled in an eligible major with 12 or more credit hours. The Legislative Lottery Scholarship is awarded to eligible students who have completed a minimum of 12 credit hours with a cumulative grade point average of 2.5 or better during their first term of attendance. As long as eligibility is maintained, the Legislative Lottery Scholarship will pay tuition for up to four terms at CNM (excluding summer). Students with disabilities who are Legislative Lottery eligible and registered with CNM Special Services may qualify for a reduction in the required number of credits by having a signed Special Services contract on file prior to each term.

Other CNM scholarships include the CNM General, CNM Daycare, and CNM Legislative Scholarships. An online scholarship application is available late January through June for the upcoming academic year. Requirements for CNM scholarships include:

- Maintaining satisfactory academic progress in an eligible program,
- Not having received a Bachelor's Degree,
- Completing a Free Application for Federal Student Aid (FAFSA),
- Having unmet need determined by the FAFSA,
- Enrolling in a minimum of six credit hours, and
- Being a New Mexico resident and a US citizen or eligible non-citizen.

CNM Foundation also offers numerous scholarships that help students with educational expenses. These scholarship requirements and their applications are available online in August and are updated as they become available throughout the academic year. For more information, please visit the Financial Aid and Scholarship Services at cnm.edu.

Check Release

Financial aid checks are released each term after the 21st day of the full 15-week term. Checks for students who complete their files too late for the first check release are released on subsequent Fridays throughout the term. If a check is not picked up on check release day, it will be mailed to the student's address currently on file with the Admissions/Records Department. Qualified students are notified of their disbursement dates in award letters via CNM email. Prior to check release, students may use the deferred award amount (shown on their class schedules) to charge the cost of their classes and to charge books and supplies at the CNM bookstore.

Main Campus, Westside, and South Valley students may pick up checks at Main Campus at the Cashier's Office in the Student Services Center; Montoya Campus students may pick up checks at the Cashier's Office in Tom Wiley Hall. Please refer to the *Schedule of Classes* for hours. A valid picture ID must be presented to pick up a check.

Students who apply for a student loan too late to receive it on the regularly scheduled release date will receive their checks about four weeks from the date they apply for the loan. Due to federal regulations, single-term Federal Stafford Loans may require two scheduled disbursements within that term. Students may elect to have their financial aid funds deposited directly to an account of their choosing by completing a direct deposit form at the Cashier's Office.

Financial Aid Satisfactory Academic Progress

Federal regulations require that financial aid recipients meet certain academic and completion standards to be eligible for federal financial aid. To ensure financial aid recipients are making satisfactory academic progress, academic transcripts are reviewed at the end of each term to determine eligibility for the next term. All terms of attendance are reviewed, including periods in which the student did not receive financial aid.

Standards of Academic Progress

Qualitative Progress: Students must maintain a cumulative grade point average of 2.0 (a "C" average). Grades of I, CR, PR, NC, W, AU and TR are not calculated in the GPA. In the case of a repeat course, only the higher grade is calculated into the grade point average.

Completion Rate: Students must complete a minimum of 70 percent (70%) of all course work attempted at CNM. Courses with grades of failure (F), incomplete (I), in progress (PR), audit (AU), no credit (NC) or withdrew (W) are not considered completed course work.

Maximum Time Frame: Students must complete their program within 150 percent (150%) of the credit hours required by their declared program. Students who exceed the maximum allowable hours will be suspended from receiving financial aid.

When satisfactory academic progress is reviewed, transfer credits are taken into account for students enrolled in majors that articulate to four-year postsecondary institutions. For a list of these programs, visit cnm.edu/depts/fass/requirements. Click on 2009-2011 Associate Degree Programs Requiring Transcripts.

Other Information

Dropping and Adding Classes: Students who add classes may be paid for additional hours. However, financial aid recipients who drop a class before the class begins or before the census date for that class may have to repay a portion or all funds they received including loans.

Developmental Courses: Developmental courses are defined under the School of Adult & General Education under the Schools section of this catalog. Students can receive federal student aid for up to 30 developmental credit hours only. This includes grants, loans and scholarships.

Some Majors May Reduce Aid: Some majors at CNM do not fall under the regular definition of an eligible program and are subject to a special calculation. Depending on the award, the calculation may either reduce your aid or keep you from being paid at all. For a list of these majors, visit "Programs That Adjust Enrollment" at cnm.edu/depts/fass/requirements, or the financial aid offices at Main, Montoya, or Westside campuses.

Ineligible Courses and Majors: In order for a course to be eligible for financial aid, it must fulfill a degree requirement of an eligible major. Courses that do not fulfill a degree requirement are not eligible for financial aid. A list of ineligible courses and programs can be viewed online at cnm.edu/depts/fass/requirements.

Online Services: Students can keep current with their financial aid by checking their account online (*my* CNM). Among other things, students can view any holds, check their award status, and find a listing of any documents that may be missing from their files.

Financial Aid Deferments: A financial aid deferment prevents classes from being dropped for non-payment. Students should confirm that they have a deferment prior to payment deadlines. Students can view their deferment on their online class schedule. To be eligible for a financial aid deferment, students:

- Must have a complete financial aid file and have approved grants and/or loans.
- Must be making satisfactory academic progress (not be on financial aid suspension)

Bookstore Deferments: Students must give the financial aid office authorization to charge books against approved financial aid by signing a Financial Aid Deferment Authorization Form, available online. This form is also available from our customer service centers at Main, Montoya and Westside campuses. Read the section on Financial Aid Deferments above for more information and eligibility requirements for deferments.

Repayment of Federal Funds

When students withdraw from all their classes before 60 percent (60%) of the term has passed, a federally prescribed formula will be applied to determine if the student, the school or both will be required to pay back to the U.S. Department of Education a portion of the aid disbursed to the student. Financial aid recipients who drop classes before the start date or census date of the class will have to repay all or a portion of the funds they received. Students who earn no passing grades in a given term are assumed to have unofficially withdrawn. Students who fail to officially withdraw may be considered to be withdrawn at midterm. For more information on withdrawals and repayments visit cnm.edu/depts/fass/requirements, scroll to the bottom of the page and click on Refund and Repayment Policy.

Websites

- To apply for federal financial aid: fafsa.ed.gov
- Information on federal financial aid: studentaid.ed.gov
- CNM Financial Aid and Scholarship Services website: cnm.edu/depts/fass
- Search for external scholarships: fastweb.com

STUDENT RESOURCES

ACADEMIC ADVISEMENT AND CAREER DEVELOPMENT

Academic Advisement and Career Development provides a variety of services to support the academic goals and career plans of each CNM student. Advisors and Career and Educational Specialists are available Monday through Friday to help students prepare for an enjoyable and successful academic experience at CNM. Students are invited to meet with an advisor on a walk-in basis or call to request an appointment at (505) 224-4321.

The department of Academic Advisement and Career Development is ready to assist students.

- **Academic Planning:** Students learn to set meaningful academic goals and create an academic plan to reach their academic goals.
- **Career Development:** Students work with professional staff to explore career interests and career fields using personal career interest tools and information and resource material available in the Career Resource Center. Please see page 58 for additional information on career clusters.
- **College Policies and Procedures:** Academic Advisors help students navigate through higher education by interpreting college policies and procedures that affect the student's academic plan.
- **Student Services:** Academic Advisors provide information about campus resources and student support services available to help students meet their academic and career goals.
- **Transfer Information:** Academic advisors can provide transfer information to students planning to transfer to a four-year college or university.

To access Academic Advisement students can:

- Visit us in person at any CNM campus.
- Visit us real time, online at: cnm.edu/depts/aacd. See the CNM website for hours of availability.
- E-mail us at aacd@cnm.edu.
- Call us at (505) 224-4321.

OFFICE HOURS

Monday – Friday 8 a.m. to 5 p.m. with expanded hours during 'Peak Time' – see the current Schedule of Classes for expanded 'Peak Time' dates and hours.

Career Resource Centers

CNM's Main and Montoya Career Resource Centers, located within the department of Academic Advisement and Career Development provide students with the opportunity to explore career-related information in order to make an appropriate choice of career and academic major.

Visit the Career Resource Centers for assistance with the following:

- The Discover® Program is a computer-based career exploration tool that assesses personal abilities, interests and values to help determine which career fields may be a good employment match.
- Resource Guides: We have books, videos and online information pertaining to many different career fields.
- Contact Academic Advisement and Career Development at:

  Main Campus, (505) 224-4331
  Montoya Campus, (505) 224-5888
  Westside Campus, (505) 224-5308
  South Valley Campus, (505) 224-5056

CAREER RESOURCE CENTERS

Main Campus, Room 203 Student Services Building, 900 University Blvd, (505) 224-4344
Montoya Campus, Room 204 Tom Wiley Hall, 4700 Morris N.E., (505) 224-5651

ACHIEVEMENT COACHES

Achievement Coaches support and encourage student success by listening attentively and providing coaching to help students apply their strengths to reach their goals. You will find Achievement Coaches in schools and support programs.

Achievement Coach services include:

- Academic and personal coaching
- Campus and community information
- Classroom presentations and workshops

Visit us at: cnm.edu/achv/index.php

Get to know your Achievement Coach today by calling for an appointment.

CONTACT INFORMATION

School of Applied Technologies, (505) 224-3734
School of Business & Information Technology, (505) 224-3870
School of Communication, Humanities & Social Sciences, (505) 224-3595
Distance Learning, (505) 224-3320
School of Adult & General Education and Center for Working Families, (505) 224-4286
TRIO Student Support Services, (505) 224-4377
School of Math, Science & Engineering, (505) 224-3568
School of Health, Wellness & Public Safety, (505) 224-4132

ASSESSMENT CENTERS (TESTING)

CNM's Assessment Centers offer a variety of tests, most of them to determine course placement. Study guides are available in the Assessment Centers. Testing accommodations for individuals with disabilities are available upon request; documentation and prior notice are required.

Placement examinations administered at CNM are Accuplacer math, reading and English tests; the Biology Placement Exam; the Nursing Basic Math Test; French Placement Exam; Spanish placement exam and; typing tests. Retesting in these exams is available.

The American College Test (ACT) is not offered at CNM. CNM accepts ACT scores for placement in certain courses. CNM also honors SAT, AP and CLEP scores but administers the CLEP exam only to current students.

The GED exam to earn a high school diploma is offered several times a month on a pre-scheduled basis. Call or check the CNM website for current test fees. Several requirements must be met prior to registering for the GED.

CONTACT INFORMATION

Call (505) 224-3244 at Main Campus, 224-5382 at Westside, 224-5761 at the Montoya Campus or 224-5000 at the South Valley Campus.

CAMPUS LIFE

CNM recognizes that students' need for a well-rounded educational experience extends beyond just the classroom. In an attempt to ensure that students have the resources needed to be successful and the opportunities to develop their full potential as future leaders and active community members, the following information is provided.

Bookstores

Bookstores sell required texts for CNM courses. In addition, they carry a full range of school supplies and CNM-spirit items (t-shirts, pens, ball caps). Bookstores are available at both Main and Montoya campuses. The hours vary, please call for more information.

CONTACT INFORMATION

Main Campus Bookstore, Student Services Center, (505) 247-9112; Montoya Campus Bookstore, Tom Wiley Hall, (505) 332-7485; cnm.edu/bookstore

Child Care

CNM maintains affiliation with Tres Manos Child Development Center to provide daytime care for children of low-income students and neighborhood residents. Cost of services is on a sliding scale and preference is given to single parents. Students should sign up early, sometimes availability is limited.

CONTACT INFORMATION

Tres Manos Child Development Center, 823 Buena Vista SE (on the south side of Main Campus); (505) 848-1310.

Food Services

Food Services are available at both Main, Montoya and Westside campuses. These areas provide a variety of eating options for students at a range of prices. Hours vary at both sites, students should stop by and find out when there is access to quick food on campus.

Other campuses and instructional sites do offer vending machines for student use.

CONTACT INFORMATION

Main Campus Food Court: Lower level of Student Services Center; Montoya Campus Food Court: H Building; All campuses: Vending machines Food Services; Westside I: Vending machines.

Health Care

A Student Health Center is available on Main Campus. To obtain services, students must be currently enrolled and schedule an appointment by calling the number listed below. First aid and basic primary care services are offered. A co-pay (ranging from $5 to $35) is required for services.

Details about private provider student health insurance are available at the Student Activities Office in the Student Services Center at Main Campus (505) 224-3238 and in Tom Wiley Hall on the Montoya Campus.

CONTACT INFORMATION

Student Health Center (Main Campus): Upper level of Student Services Center; hours: 8 a.m. to 5 p.m.; (505) 224-3080.

Honor Society

Phi Theta Kappa is the official international honor society for junior and community colleges. CNM's chapter of Phi Theta Kappa is the Alpha Upsilon Chi chapter. Students who have a declared major in an associate's degree program, have completed 12 or more credit hours at CNM and have a cumulative GPA of 3.5 or higher are invited to join Phi Theta Kappa.

CONTACT INFORMATION

Dean of Students Office (Main Campus): Upper level of Student Services Center; hours: 8 a.m. to 5 p.m.; (505) 224-4342.

Housing

CNM is a non-residential college so there is no housing available on campus. However, there are numerous apartment complexes and rental homes in the vicinity of campus. Many local renters do maintain postings of their available rentals in the Main Campus Student Activities Office for your use. Most postings are for the area in and around the Main Campus.

CONTACT INFORMATION

Information regarding rental housing near Main Campus is available from Student Activities Office (Main Campus), room SSC109.

ID Cards

As a student, you are required to have a CNM ID. Many services on campus require the ID to access the service and having an ID is the quickest and easiest way to verify your eligibility for tax-free purchasing in the bookstore and student discounts in many Albuquerque-area businesses.

CONTACT INFORMATION

Main Campus, Student ID Office, SSC 109; Hours: 8 a.m. to 5 p.m. ; (505) 224-3238. Montoya Campus, Tom Wiley Hall, room "A". Call ahead for hours; (505) 224-5546.

Parking

Parking is currently free at most campus lots, although students must register vehicles with Security and display a parking registration sticker when parking on any CNM campus. Parking registration stickers are available free at the Admissions information counter in the Student Services Building at the Main and Montoya campuses and in the administrative offices at the South Valley Campus and Westside Campus. At Main Campus, students may purchase permits for permit-only and gated parking lots. Permits must be displayed from the rearview mirror. Gated lots are open and free after 4:30 p.m. Monday – Thursday and all day on Friday. Meters are enforced Monday – Friday until 4:30 p.m. Spaces are available on a first-come, first-serve basis.

Parking violations may result in disciplinary action against car owners. Cars parked in fire lanes, in spaces reserved for the handicapped, or having three unpaid citations are subject to towing. More information is available in the *Schedule of Classes*.

CONTACT INFORMATION

Parking Services, (505) 224-4637; parkserv@cnm.edu; cnm.edu/parking/index.php

Security

For Campus Emergencies on any campus, call (505) 224-3001.

These numbers directly connect any campus phone to the "Emergency Phone" in the Campus Security Dispatch and should be used only when an emergency arises such as fire, violent crimes or when medical response is required.

Code Blue Phones

Outdoor emergency "code blue" phones are located across CNM campuses. These telephones are housed in highly visible, lighted blue call boxes and provide one-button speed dialing for instant communication with campus security.

CONTACT INFORMATION

Main Campus Security Department; 901 Buena Vista SE; Physical Plant Building; hours: 7:30 a.m. to 5 p.m.; (505) 224-3002.

Motorist Assistance

CNM Security assists the CNM community when individuals are unable to start their vehicles, retrieve locked keys, etc. Some services are not available at all times, but CNM Security will assist people to obtain services from another source.

CONTACT INFORMATION

Motorists will be required to sign a service disclaimer before any service is rendered. Assistance may be requested by calling Security Dispatch at (505) 224-3002.

Security Escort Services

The Security Department provides a security escort service. The service is available 24 hours a day, but is limited to on-campus locations. Call (505) 224-3002 to request an escort.

Additional security information and crime statistics (in compliance with the Cleary Act) are listed in the Security Department's Annual Report available from the Security Department.

CONTACT INFORMATION

Main Campus Security Department; 901 Buena Vista SE; Physical Plant Building; hours: 7:30 a.m. to 5 p.m.; (505) 224-3002.

Student Activities

CNM offers its students a number of activities, which are meant to enrich life on campus and to provide for a complete and holistic approach to a students' educational experience. Students can become a member of the Executive Council of Students (CNM's Student Government), join a club or organization – there are well over 30 available – or take part in activities and events that are provided throughout the year.

CONTACT INFORMATION

Main Campus, Student Activities Office, SSC 109; (505) 224-3238.

Transportation

Sun Tran, Albuquerque's public transit system, has routes that serve CNM's Main, Montoya, Westside and South Valley campuses. Schedules are available at the Student Services Center on Main Campus or from Sun Tran.

Bicycle racks are available at all of our campuses.

CONTACT INFORMATION

Sun Tran, (505) 843-9200; cabq.gov/transit

Voter Registration

CNM students may register to vote at any CNM campus.

CONTACT INFORMATION

Main and Montoya campuses: Admissions Offices or Student Activities Office, (505) 224-3160; Main Office at the South Valley Campus or Westside Campus, (505) 224-5301.

CENTER FOR COMMUNITY PROGRAMS AND PARTNERSHIPS

The Center for Community Programs and Partnerships (C2P2) provides students with academic and non-academic support based programs designed to improve the student's life and academic coursework while enrolled at CNM. The staff is dedicated to providing students with a safe and exciting learning environment. Center for Community Programs and Partnerships students can build upon their interpersonal skills and leadership development while completing their academic coursework.

Pew Foundation Leadership Program

CNM offers a unique opportunity for students to develop their leadership skills and become more marketable in applying for jobs after graduation. The Pew Foundation Leadership Plenty Program is designed to provide extensive training in leadership and civic engagement opportunities to become a student leader in the Albuquerque community.

Students interested in becoming part of this program should call The Center for Community Programs and Partnerships for the upcoming academic year.

CONTACT INFORMATION

The Center for Community Programs and Partnerships: (505) 224-4359

President's Volunteer Service Award

CNM and the United States have a long and proud tradition of service to the community. Recognizing and honoring volunteers sets a standard for service to others. The President's Volunteer Service Award is a recognition program for Americans who contribute a significant amount of time to volunteer service. The Center for Community Programs and Partnerships facilitates this award program.

Phi Theta Kappa Honor Society

Phi Theta Kappa is the official international honor society for two-year colleges. Phi Theta Kappa's main function is to reward the hard work of students who excel academically, to organize service projects and to coordinate honors study topics. CNM's chapter of Phi Theta Kappa is Alpha Upsilon Chi. Membership is by invitation only, and letters of invitation are sent out throughout the year. To be eligible, students must have declared a major in an associate degree program, completed 12 or more credit hours at CNM and have a cumulative GPA of 3.5 or higher

Civic Engagement Leadership Institute

The CNM Civic Engagement Leadership Institute promotes civic responsibility and engagement between the college and the community. The leadership training is sponsored by the American Association of Community Colleges and Pew Partnership for Civic Change, known as LeadershipPlenty, along with CNM, and facilitated through the Center for Community Programs and Partnerships. Civic Engagement Leadership Institute participants develop their leadership skills as active students and citizens within our communities.

Health Occupations Students of America (HOSA)

Health Occupations Students of America (HOSA) is a national student organization endorsed by the U.S. Department of Education and the Health Science Technology Education Division (HSTE). HOSA's two-fold mission is to promote career opportunities in the health care industry and to enhance the delivery of quality health care to all people. All health occupations students and instructors are encouraged to participate in the CNM Chapter of HOSA.

CNM was the first post-secondary school in New Mexico to obtain state chartered status. For more information, please contact CNM Student Activities and join the CNM Chapter of HOSA. Visit the HOSA website at hosa.org.

New Mexico SkillsUSA

An emphasis is placed on helping students who are preparing for careers and will participate in skill-related competitions. Each year students in this organization compete at both the state and national levels. SkillsUSA is dedicated to building champions for America's work force. Participation with this organization prepares students as professionals in trades industries and technology fields, skilled service occupations and health occupations.

Reading Kids Count

Reading is a key to success in education and life. Reading Kids Count tutors work at pre-selected school sites with children in grades K-5. This program is ideal for those students who wish to pursue a career in education, as well as those who demonstrate an interest in working with children. Students who wish to work in this rewarding environment must be: financial-aid eligible; in good academic standing; able to work 20 hours per week; have reliable transportation; agree to comply with school and departmental standards and must successfully pass a criminal background check.

CONTACT INFORMATION

Center for Community Programs and Partnerships, Main Campus, (505) 224-4359 or (505) 224-3265, weekdays from 8 a.m. to 5 p.m.

COLLEGE SUCCESS EXPERIENCE COURSES

CNM offers both developmental education and transfer-level College Success Experience (CSE) courses. These courses help students get organized, manage their time, set and meet goals, and study effectively. Students also explore career options, develop new learning strategies and self-motivation, and find new ways to approach tests and assignments in other disciplines. CSE courses numbered 0999 and below are graded CR/NC (credit/no credit); CSE courses numbered 1000 and above can be taken for a letter grade, taken CR/NC, or audited. See page 232 for detailed course descriptions.

Full-time students who test into two or more developmental areas (Math, Reading, or English classes numbered below 1000) are required to take a CSE course. Qualifying students who score between 0-68 on the Accuplacer Reading test should enroll in CSE 0650; students who score 69 or higher on the Accuplacer Reading test should enroll in CSE 1101.

CONTACT INFORMATION

Main Campus, Max Salazar Hall, (505) 224-3939

COMPUTER LABS

Computer labs are available for student use at all CNM locations. A complete listing of locations and phone numbers can be found in the *Schedule of Classes*. Be sure to call ahead because times may vary throughout the school year.

CONTACT INFORMATION

Main Campus, E-100, (505) 224-3919
N-Networking Lab, (505) 224-3920
Main Campus, Business Resource Center, Room SB-210, (505) 224-3840
Main Campus, MS109 and MS110, (505) 224-3579
Montoya Campus, H-124, (505) 224-5596
South Valley Campus, (505) 224-5000
Westside Campus, (505) 224-5335
Workforce Training Center, (505) 224-5200

JOB CONNECTION CENTER

Graduate Employment

Job Connection Center collects employment information from CNM graduates and publishes the data at the end of each academic year. Every effort is made to reach all graduates from CNM's degree and certificate programs, though not all graduates report their wages.

The graduate employment statistics exclude graduates who were not located; those not seeking training-related jobs; and those continuing school or serving in the military. CNM programs with no graduates for this reporting cycle are not listed. The hourly wage range does not necessarily reflect entry-level pay. Wages for individuals who worked in a training-related field prior to completion of their degree or certificate program are only reflected for those who reported a promotion or pay increase as a result of acquiring their degree/certificate.

For more in-depth information about the graduate employment data on these pages, contact the Job Connection Center. For local and state employment and wage trends, refer to dol.state.nm.us/eds/index.html. National employment and wage trends are available at acinet.org.

CONTACT INFORMATION

Main Campus: (505) 224-3060, cnm.edu/depts/jcc

LIBRARIES

The CNM libraries at the Main and Montoya campuses provide a variety of resources designed to meet the information needs of CNM students, faculty, staff and community patrons. The libraries serve as the major information resource for CNM and provide the information services and resources necessary to support the college's mission. The libraries require students and employees to provide their CNM ID when accessing services that require identification verification. ID Office hours and locations are printed in the *Schedule of Classes*.

CONTACT INFORMATION

The Main Campus Library is located at 2000 Coal Avenue SE in Jeannette Stromberg Hall (JS Building), 4th floor.
Main Circulation Desk, (505) 224-3274
Main Reference Desk, (505) 224-3285
Main Media Desk, (505) 224-3302

The Montoya Campus Library is located at 4700 Morris NE in the J Building, Room 123.
Montoya Circulation/Media Desk, (505) 224-5721
Montoya Reference Desk, (505) 224-5730

Library Hours

When classes are in session, CNM Libraries are open:
Monday–Thursday: 7 a.m. to 8 p.m.
Friday: 7 a.m. to 5 p.m.
Saturday: 8 a.m. to 5 p.m. (Main) 9 a.m. to 5 p.m. (Montoya)
Sunday: Closed

Term Break hours are Monday–Friday 8 a.m. to 5 p.m.

Contact the libraries for more information for holidays and special closings.

CNM Libraries on the Internet

Access online information through cnm.edu, including: the library catalog with book, video and serials holdings; full-text articles from thousands of magazines, journals and newspapers using online academic research databases; an electronic reference service to ask a question via your e-mail; and online forms to make inter-library loan requests. Students can also provide the libraries with suggestions for the purchase of books and other materials, schedule library tours and get assistance with off-campus access to databases.

Services Offered by the CNM Libraries

- Public access computers with Internet capabilities are available for searching library holdings or the World Wide Web.
- Staff are available during library hours to assist patrons in locating materials, Internet searching and answering reference questions.
- Library instruction workshops ranging from general orientation tours to specialized workshops for students, faculty or staff.
- Staff collaboration with instructors on classroom assignments or research topics.
- Personalized reference and research consultation by appointment.
- Intra-library loan services for books held at either library.
- Inter-library loan services for patrons wishing to borrow materials from regional or national libraries, convenient online forms for books or articles.
- Joint access agreement which allows CNM Students and Employees to check out materials from other New Mexico Academic Libraries

Library Holdings

- Circulating book collection of approximately 30,000 titles at Main Library and 16,000 at Montoya Library.
- Reference collection of approximately 7,000 titles at Main Library and 3,000 at Montoya Library.
- Audiovisual collection selected to support the CNM curriculum of approximately 4,300 video titles at Main Library and 700 at Montoya Library.
- Serials collection of over 700 titles in print version—includes peer-reviewed journals, magazines, and newspapers.
- Vertical file collection of over 5,000 items including local TVI/CNM archive, information of interest about New Mexico, consumer information pamphlets, current social issues, travel and leisure brochures and much more.

my CNM (E-MAIL/WEB)

my CNM is the college's online communication and enrollment system. Through *my* CNM students have access to:

- up to date information on campus services and events
- online registration, registration updates and tools
- tuition/fee information and make online payments
- order textbooks online
- their class schedule, final grades and CNM transcript
- financial aid information
- their CNM student email
- online academic advisement
- library and other CNM resources
- graduation information and processes
- and much, much more

Access to *my* CNM is available from CNM's Web page (cnm.edu). Students must use their username and password to enter the system. First-time users and those who have forgotten their username or password should click on the appropriate links to get that information.

CONTACT INFORMATION

ITS Service Desk, (505) 224-4357

SPECIAL SERVICES

Special Services assists students with physical, mental, learning, visual, speech or hearing disabilities. Career counseling, program planning, classroom accommodations, adaptive equipment, coordination with community support agencies and specialized learning plans are available. Follow-up services (counseling and job-seeking help) are also provided.

CONTACT INFORMATION

Main Campus, (505) 224-3000
Montoya Campus, (505) 224-5946

TRIO STUDENT SUPPORT SERVICES

The TRIO Student Support Services program is funded by U.S. Department of Education. The goal of the program is to help students graduate from a CNM program and as appropriate transfer to a four-year university. Students are eligible if they: are a U.S. citizen or permanent resident; have an academic need; are preparing for an associate degree and/or plan to transfer to a four year university; belong to one or more of the following categories: income eligible and/or first generation college student (parent(s) or guardian(s) do not have a four-year degree) and/or have a documented disability.

Services include academic and career guidance; math, science and English tutoring; college success workshops; university transfer assistance and cultural-educational activities and student leadership opportunities. The TRIO Student Support Services program has limited student enrollment. Applications are accepted the last two weeks of each term. Staff will contact applicants in the event of an opening.

CONTACT INFORMATION

Main Campus, Student Services Center, Suite 101, (505) 224-4375.

TUTORING SERVICES

The Assistance Centers for Education (ACE) provides learning support at all CNM campuses by offering one-to-one and small-group learning assistance, reinforcing classroom concepts, fostering independent thinking and helping develop problem-solving skills. ACE is part of the School of Adult & General Education. Services are available free to students. ACE is certified by the college Reading and Learning Association and certified tutors are available to help students in a variety of subjects. Visit the ACE website at cnm.edu/depts/ace/

The Tutorial/Learning Centers (T/LC)

The Tutorial/Learning Centers (T/LC) are open to all students and the general public. Individual tutoring in English, math, sciences and other areas is provided on a walk-in basis. Additional instructional resources include videos, reference materials and workbooks.

CONTACT INFORMATION

Main Campus T/LC, Jeannette Stromberg Hall, (505) 224-4306
Montoya Campus T/LC, J Building, (505) 224-5990
South Valley Campus, (505) 224-5067
Westside Campus, (505) 224-5311

The Adult Education Learning Centers (AELC)

The Adult Education Learning Centers (AELC) are open to all adult basic education students. Individual and small group tutoring is available on a walk-in and by appointment basis. Subjects covered are English as a Second Language (ESL) and GED preparation, Literacy and Citizenship. Additional instructional resources include videos, reference materials, workbooks and conversation groups.

CONTACT INFORMATION

Main Campus, Ken Chappy Hall, Room 6, (505) 224-4312
Montoya Campus, J Building, (505) 224-5995
South Valley Campus, (505) 224-5067
Westside Campus, (505) 224-5311

The Writing and Reading Assistance Centers (WRAC)

The Writing and Reading Assistance Centers (WRAC) are open to all students in developmental education courses. Individual and small group tutoring is available on a walk-in and by appointment basis. Topics covered are pre-writing techniques, outlining strategies, essay organization, summary writing, grammar, vocabulary building, reading comprehension, test preparation, study skills and other concepts covered in reading and writing courses. Additional instructional resources include videos, reference materials and computers with writing and reading software.

CONTACT INFORMATION

Main Campus WRAC, Ken Chappy Hall, Room 8, (505) 224-3954
Montoya Campus, J Building, (505) 224-5990
South Valley Campus, (505) 224-5067
Westside Campus, (505) 224-5311

The Math Learning Centers (MLC)

The Math Learning Centers (MLC) are open to all developmental math students. One-to-one and small-group tutoring is available on a walk-in basis. Additional instructional resources include handouts, videos, reference materials and computer software.

CONTACT INFORMATION

Main Campus, Ken Chappy Hall, Room 4, (505) 224-3989
Montoya Campus, J Building, (505) 224-5990
South Valley Campus, (505) 224-5067
Westside Campus, (505) 224-5311

The Open Computer Lab (OCL)

The Open Computer Lab (OCL) is open to students and members of the public. The lab has over 60 computers, including three Macintosh computers, with various software packages for educational and personal use on a first-come, first-served basis. Staff members are on duty to provide general assistance.

CONTACT INFORMATION

Main Campus, Jeannette Stromberg Hall, (505) 224-4314

Literacy Volunteers

The Literacy Volunteers at CNM offer free tutoring services that bring together adult learners and volunteer tutors. One-to-one tutoring is available by appointment. Subjects covered are literacy, English as a Second Language (ESL), GED preparation and citizenship.

CONTACT INFORMATION

Main Campus, (505) 224-4313

The Supplemental Instruction Program (SIP)

The Supplemental Instruction Program (SIP) provides peer-assisted study sessions for targeted, traditionally difficult courses. Student leaders are recommended by faculty, attend intensive training and facilitate regularly scheduled study groups with the goal of improved student success leading to increased retention and completion.

CONTACT INFORMATION

Main Campus, Jeannette Stromberg Hall, (505) 224-4714

Online Tutoring

Free Online Tutoring is available to CNM students for selected courses to include math, English, science, economics and Spanish. Students can go online for drop-in live sessions (available 24-7 for Math), prescheduled appointments, or they may submit questions/papers with a 24-hour turnaround. In addition, other academic resources are available through the website, cnm.edu/depts/ace.

CONTACT INFORMATION

Main Campus, Jeannette Stromberg Hall, (505) 224-4308

Business Resource Center (BRC)

Located at Main and Montoya campuses, the BRC is for students in the School of Business & Information Technology for the purpose of completing homework assignments and research projects as well as to practice skills and receive assistance with computer course work, business math or accounting.

CONTACT INFORMATION

Main Campus, Smith Brasher Hall, (505) 224-3840
Montoya Campus, H Building, (505) 224-5596

Applied Technologies Center

The Tech Center provides students in the School of Applied Technologies access to facilities, equipment and support needed for the continued study and execution of labs and class work beyond normally scheduled class hours.

CONTACT INFORMATION

Main Campus, S Building, (505) 224-3366

WORKKEYS® AND KEYTRAIN™

What do successful administrators, health care providers, information technology specialists, teachers, technicians and other high-paid, high-skilled professionals have in common? All share certain fundamental learning and job essential skills that have enabled them to be successful in school, at work and in life!

CNM uses two systems called WorkKeys and KeyTrain to identify, measure and teach nine of the most important essential skills. These include such key abilities as Business Writing, Listening, Locating Information, Observation, and Teamwork. These are the required skills for the 21st century workforce.

Students may go to the WorkKeys/KeyTrain Center located in the Ted Chavez Building (TC 107) to take the WorkKeys tests and/or to get help with KeyTrain (the internet-based skills tutorial program). Call (505) 224-4235 or go to cnm.edu/depts/workkeys/center.php for the testing center's hours. Students do not need to schedule testing. However, those interested should call in advance just to verify the center is open.

CNM's career analyst is available to assist you in with WorkKeys and KeyTrain.

CONTACT INFORMATION

Contact the Career Analyst at (505) 224-4435 or visit cnm.edu/depts/workkeys/index/php.

EDUCATIONAL OPTIONS

EDUCATIONAL OPTIONS

CLASS OPTIONS

CNM students can take their classes in a variety of formats, including online, hybrid, blended, and self-paced. These different methods of instruction allow students to choose the type of class that's right for them, as some offer more flexibility for students' schedules, or allow students to work through class material at their own pace. The following information describes the different class options available at CNM:

ONLINE COURSES

All of the course content is delivered online. Course orientation, assignments, presentations, learning activities, interactive quizzes and tests are online. Instructors use e-mail, homepages and course management tools. Online courses require students to have access to a computer. Additionally students may be required to have access to a Web browser and purchase software.

HYBRID COURSES

A "hybrid" course combines both face-to-face classroom instruction and online Internet-based learning. Fifty percent of the student's time is spent in the classroom and fifty percent of the time the student works independently on his or her own computer. For example, in courses where students typically meet face-to-face two days a week, hybrid courses may meet in the classroom once a week and the remaining course time is spent in an online classroom environment. Hybrid courses require students to have access to a computer.

BLENDED COURSES

The majority of the course content is delivered via the Internet. However, blended learning courses require on-campus sessions for orientations, presentations, exams, labs and/or other assessment activities with an instructor or in a proctored setting. The number of face-to-face sessions will vary depending on course requirements. Blended online courses require students to have access to a computer. Additionally students may be required to have access to a Web browser and purchase software.

SELF-PACED COURSES

Students in "self-paced" courses work through the curriculum at their own pace, with the help of their instructor and often that of an Instructional Technician. Students who finish the curriculum early in the term can often enroll in the next level course within the same term. Self-paced classes may also include small group work, small group instruction, computer lab use, real-life application labs, and calculator use. Students may enroll through the twelfth week in spring and fall, and the tenth week in the summer. The following courses are often offered in the self-paced format: IT 0870, MATH 0550, MATH 0750, MATH 0930, and MATH 0940.

SERVICE LEARNING

Service Learning is the combination of community service and classroom instruction, with a focus on critical, reflective thinking as well as personal and civic responsibility. Service Learning allows instructors to integrate classroom instruction with student service to the community at selected CNM approved agencies while providing a structured time of reflection for students.

Students get experience applying what they are learning in the classroom while meeting real community needs. Community agencies receive service from students while helping to educate students in ways that don't happen in the classroom. Students get hands-on experience in career fields they are considering. Students also increase their communication and networking skills, their awareness of community needs and projects, and their abilities to apply what they learn in class. They are provided opportunities to become civically engaged in their communities.

The CNM Service Learning Program is a national model for colleges and universities. The program has won numerous awards for its innovative methods of academic instruction and civic engagement. The CNM Service Learning program serves a student population of 24,600 students and over 250 community agencies

CONTACT INFORMATION

Center for Community Programs and Partnerships, Main Campus, (505) 224-4359 or (505) 224-3265.

LEARNING COMMUNITIES

Learning Communities

In a Learning Community students enroll in two or more classes together, creating a "community" of learners. At CNM, dynamic and experienced instructors team up to plan and teach these paired courses and to give students the support and attention they need. Learning Communities help students to stay motivated and national research shows that students in Learning Communities succeed at higher rates than students in stand-alone courses. Learning Communities at CNM are offered across the schools and each campus. Check the *Schedule of Classes* for current offerings, visit the website at cnm.edu/depts/academicaffairs/oeu/lc.

CONTACT INFORMATION

School of Communication, Humanities & Social Sciences, (505) 224-3588
School of Math, Science & Engineering, (505) 224-3561
School of Adult & General Education, (505) 224-3944
School of Business & Information Technology, (505) 224-3811
School of Health, Wellness & Public Safety, (505) 224-4111

RESERVE OFFICERS TRAINING CORPS (ROTC) COURSES

CNM offers ROTC courses in conjunction with UNM for the Air Force (AFAS), Army (MSL) and Navy (NAVS). Courses are listed under the AFAS, MSL and NAVS subject codes in the course descriptions section of this catalog (see below) and are held at UNM. Before enrolling, interested students should contact the appropriate ROTC program at UNM. ROTC courses may not be applied to any certificate or degree at CNM.

CONTACT INFORMATION

Air Force ROTC (see page201); Army ROTC (see page 272); Navy ROTC (see page 274).

DISTANCE LEARNING

DISTANCE LEARNING

Distance Learning (DL) courses facilitate online learning and are especially suited to reach busy people who wish to increase their knowledge and skills without giving up their jobs, losing income or interfering with family responsibilities. Courses maintain the same high quality educational standards as those of the traditional classroom with the additional flexibility and convenience of learning built around the student's schedule. The various forms of communication and instructional technologies utilized permit and encourage students to participate in discussions with faculty and classmates.

WHO IS A SUCCESSFUL DISTANCE LEARNING STUDENT?

Successful distance learners are self-motivated.

Students must devote at least the same amount of time, or possibly more time, to participate in a distance learning course as they would to a traditional course.

Successful distance learners manage their time well.

Students appreciate the flexibility that distance learning courses offer and the freedom to schedule coursework at their convenience.

Check out CSE 2096 the Online Student Success course offered through the School of Adult & General Education. This on-credit course helps students develop the skills and practice habits of a successful online learner. See the *Schedule of Classes* for current offerings.

TYPES OF DL CLASSES

CNM uses the following Distance Learning delivery methods:

Internet Course

Course content is offered through the Internet. Presentations, learning activities, inter-active quizzes and tests are online. Instructors use e-mail, homepages and course management tools. Student must have access to an internet browser and an e-mail address. Three different types of courses fall under this delivery method:

Online Course: All of the course content is delivered online. Course orientation, assignments, presentations, learning activities, interactive quizzes and tests are online. Instructors use e-mail, homepages and course management tools. Online courses require students to have access to a computer. Additionally students may be required to have access to a Web browser and purchase software.

Blended Course: The majority of the course content is delivered via the Internet. However, blended learning courses require on-campus sessions for orientations, presentations, exams, labs and/or other assessment activities with an instructor or in a proctored setting. The number of face-to-face sessions will vary depending on course requirements. Blended online courses require students to have access to a computer. Additionally students may be required to have access to a Web browser and purchase software.

Hybrid Course: A "hybrid" course combines both face-to-face classroom instruction and online Internet-based learning. Fifty Percent of the student's time is spent in the classroom and fifty percent of the time the student works independently on his or her own computers. For example, in courses where students typically meet face-to-face two days a week, hybrid courses may meet in the classroom once a week and the remaining course time is spent in an online classroom environment. Hybrid courses require students to have access to a computer.

DVD Courses

Course presentations are delivered via DVD or videotape. (100% online/ DVD and carries the online course fee.)

HOW TO REGISTER FOR DL COURSES

Students should follow the regular CNM registration process (see page 11).

AFTER REGISTRATION

■ **Step 1: Read the Course Instructions**

Go to the DL homepage located at cnm.edu/depts/dl/. To access course instructions, click on the name of the course listed on the homepage. The course instructions contain important information provided by the instructor.

■ **Step 2. Get books and supplies**

Some distance learning courses use different textbooks than on-campus sections of the same course. Students are encouraged to carefully review the course information for the correct title and edition of the text and name of the author before purchasing textbooks. Students can purchase textbooks from the bookstores by mail, phone, online or in person. For information about the CNM Bookstore, please see the *Schedule of Classes*.

■ **Step 3: E-mail the instructor**

Many instructors request that students e-mail them right after registration, while others may require students to attend an orientation on campus to obtain important information. Students should e-mail their instructors to get further instructions and to let them know they have read the course instructions and are prepared to begin the course.

■ **Step 4: Access the Course**

A class cannot be accessed until 8 a.m. on the day the class begins. On the first day of class students should login to Blackboard, open the class and begin. Remember, successful DL students ask questions. Students who are unsure of what to do should e-mail their instructor.

WHERE TO ACCESS A COURSE

CNM's Distance Learning classes use Blackboard Learning System, a course management system. Blackboard works with a computer's Internet browser to create a "virtual classroom" where online tools such as a discussion board, chat room, e-mail, online quizzes and more are used.

Students can login to Blackboard in the student tab through *my* CNM or go to elearning.cnm.edu

TECHNICAL SUPPORT: Embanet Helpdesk 1-888-560-4927

CONTACT INFORMATION

Distance Learning Office, (505) 224-3317 or (888) 453-1304, cnm.edu/depts/dl

Visit the DL FAQ (Frequently Asked Questions) online at cnm.edu/depts/dl/FAQ.php.

NON-CREDIT OPTIONS

NON-CREDIT OPTIONS

ENGLISH AS A SECOND LANGUAGE

The Adult Basic Education (ABE) ESL program offers free courses in English as a Second Language (ESL). The goal of these courses is to help adult students improve their listening, speaking, reading, and writing skills in English. A range of leveled courses is available from Literacy level to Advanced. Other courses that the program offers are Integrated (multi-level) courses and Citizenship. Most courses meet for 15 weeks in the fall and spring and for 12 weeks in the summer term. Students usually attend classes twice a week. ESL classes are non-credit courses; students completing this program can transition to credit courses through the ESOL (credit ESL) program.

CONTACT INFORMATION

The School of Adult & General Education, (505) 224-4282 at Main Campus; (505) 224-5993 at Montoya Campus.

GED

The Adult Basic Education (ABE) GED Program offers free instruction to adults who do not have a high school diploma. Through this program students can improve their math, reading, and writing skills in order to prepare for the GED exam and obtain a diploma. Students at the basic literacy level can also learn to read and write. GED Integrated courses also include job/life skills and computer literacy.

CONTACT INFORMATION

The School of Adult & General Education, (505) 224-4282 at Main Campus; (505) 224-5993 at Montoya Campus.

WORKFORCE TRAINING

The CNM Workforce Training Center (WTC) offers short-term, non-credit courses, assessments, exam preparation, professional development and continuing education to upgrade skills and improve career potential. We also offer high quality, customized employee training to meet specific organizational needs. Our customized training is:

- Convenient – Offered any time and place
- Affordable – Quality training that won't drain your budget
- Relevant – Training which meets your organization's specific needs
- Diverse – Programs cover a wide range of business, health, and technical needs and interests
- Applicable – Training which can be readily implemented "on the job"
- Real World – Instructors with industry and teaching expertise

CONTACT INFORMATION

CNM Workforce Training Center, 5600 Eagle Rock Avenue (near I-25 and Alameda); (505) 224-5200; cnm.edu/wtc.; workforce@cnm.edu

COMMUNITY EDUCATION

The CNM Workforce Training Center (WTC) also offers area residents short, non-credit community education courses and workshops for those who want to further their knowledge and understanding in computers, digital cameras, digital technology, culinary arts, health and wellness and other life enrichment topics. In addition to offering a core of courses, Community Education includes a broad selection of new courses every term. Please contact us for more information and a list of upcoming classes.

CONTACT INFORMATION

CNM Community Education, (505) 224-5506; cnm.edu/wtc; workforce@cnm.edu

ACADEMIC POLICIES AND REQUIREMENTS

DEFINITION OF TERMS

Academic Year: The academic year is divided into three terms: fall, spring and summer.

Attendance: Students enrolled for credit or audit are expected to attend all class sessions. Instructors will take attendance.

Absences do not relieve students of the responsibility for missed assignments and exams. Students must take the initiative in arranging with their instructors to make up missed work.

A student who misses the first class meeting and has not contacted the instructor, or who misses two consecutive class meetings in the first week may be dropped from the course. A student with excessive absences may be dropped from a course (see the *Schedule of Classes* for additional information regarding attendance requirements.) If a student is dropped from a course for non-attendance he or she is also dropped from corequisite courses. A student should not assume he/she will be dropped automatically.

A student who is dropped by an instructor for non-attendance is notified by mail. The instructor's decision is final, but if the student disagrees with the action he or she must contact the instructor within two working days of receipt of the notification.

Additional information about attendance is contained in individual course syllabi.

Classification of Students: The following are standards for the academic classification of students:

- Freshman: A student who has completed fewer than 30 credits at CNM
- Sophomore: A student who has completed 30 or more credits at CNM
- Part-time: A student enrolled in fewer than 12 credit hours per term
- Full-time: A student enrolled in 12 or more credit hours per term

Course Numbering: Effective Fall 2007, courses numbered 0001-0999 are developmental or preparatory courses; 1001-1999 are freshman-level courses; 2001-2999 are sophomore-level. Prior to Fall 2007, courses numbered 1-100 were developmental or preparatory; 101-299 freshman and sophomore level.

Course Types:

academic transfer: all arts and sciences courses and specific career and technical courses designed to both meet CNM program requirements and transfer to other colleges and universities. A list of academic transfer course is available at cnm.edu.

arts and sciences courses: Courses numbered 1001 and above with the following subject codes: ANTH, ARBC, ART, ARTS, ARTH ASTR, BIO, CHEM, COMM, CST, ECON, ENG, FREN, GEOG, GER, GNHN, HIST, HUM, JOUR, MATH, MUS, NUTR, PHIL, PHYS, PORT, PSCI, PSY, RLGN, SOC, SPAN, THEA

career and technical courses: Courses numbered 1001 and above not listed as arts and sciences courses

developmental courses: Courses numbered 0999 and below

Credit Hours: Credit in courses offered by CNM is awarded in terms of credit hours. Each hour of credit in a lecture class requires a minimum of 750 minutes of instruction per term; each hour of credit in a laboratory class requires a minimum of 1,875 minutes of instruction per term. For transfer purposes, one CNM credit hour generally equals one semester credit hour at other institutions.

GRADING SYSTEM

Final CNM grades are recorded on the student's CNM transcript and calculated in both a term grade point average (GPA) and a cumulative GPA. Final grades are available to students through the Registration/ Grades tab of *my* CNM.

The grades awarded in all courses represent the quality of work done. Their meaning in most courses is as follows:

A: **Excellent;** 4 points per credit hour.
B: **Above average;** 3 points per credit hour.
C: **Average;** 2 points per credit hour.
D: **Below average;** 1 point per credit hour.
F: **Failure;** 0 points per credit hour.
CR: **Credit;** grade is equivalent of at least a grade of C but is not computed in the grade point average.
NC: **No Credit;** grade is not computed in the grade point average.
PR: **In Progress;** course work not completed; grade is not computed in the grade point average.
AU: **Audit;** recorded for completion of enrollment in an audited course; no credit is earned.
I: **Incomplete;** grade is not computed in the grade point average (see Incomplete Grade Assignment and Removal on page 41).
W*: **Withdrew;** used for student, instructor and administrative withdrawals.
TR/TRD: **Credit for transfer coursework and non-traditional credit;** grade is not computed in the grade point average.

**Effective Fall 2003, 15-week and full-term classes dropped on or before the 15th day of that part of term/session (including Saturdays) and all other classes dropped on or before the first 1/3 of that part of term/session (including Saturdays) do not appear on the student's CNM transcript. A "W" will appear on the student's record for classes dropped after the dates listed above. Prior to Fall 2003, a "W" appeared on the student's record for full-term and 12-week courses dropped after the 15th day of the term/session (including Saturdays) and for all other short-session courses dropped on or after the first day of the session.*

Grade Point Average

To compute the grade point average (GPA), multiply the number of credit hours by the quality point value assigned to the letter grade for each class: A = 4 points, B = 3 points,
C = 2 points, D = 1 point, F = 0 points. Then divide the total number of quality points earned by the total number of eligible credit hours attempted. See box below. (Grades of I, CR, PR, NC, W, AU and TR are not calculated in the GPA.) Effective Fall 1991, courses on the student's transcript which have an E in the repetition column are excluded from GPA calculation.

GRADE POINT AVERAGE (GPA) CALCULATION EXAMPLE

Course	Credit(s) Attempted	x	Grade Received (quality point value)	=	Total Quality Points Earned
ENG 1101	3	x	B (3 quality points)	=	9
ACCT 1303	1	x	C (2 quality points)	=	2
HIT 1030	4	x	A (4 quality points)	=	16
TOTAL	**8 credits**				**27 quality points earned**

Now, divide total quality points earned by total credits attempted: 27÷8 = 3.37
Therefore: GPA = 3.37

Grade Mode (Grade Options)

CNM has the following grading options (grade modes). These options are not available for all classes. Refer to the course description for grade mode restrictions.

Traditional Grade: A, B, C, D, F. Traditional grades are used in calculating GPA. Students interested in transferring their CNM course work to another institution are encouraged to enroll in courses for a traditional grade.

Audit: Students auditing a course must meet course prerequisites, are expected to attend all class sessions, but are not required to complete assignments. Students changing from audit to any other grade mode are responsible for having met all course requirements to date, as stated in the course syllabus. Students may not enroll in courses numbered 0999 and below for audit.

Courses taken for audit will appear on the student's transcript as AU with no credits recorded and no grades assigned. Courses taken for audit are not included in the student's total course load for enrollment verification and cannot be used to meet a course pre- or corequisite.

Credit/No Credit: Students may elect to take arts and sciences courses for credit/no credit (CR/NC) but it is not an option for General Honors or most career and technical courses. All developmental courses are graded on a CR/NC basis.

CR (Credit): Students must meet all minimum requirements for the course. CR is the equivalent of a C or better grade. A grade of CR is not computed in the GPA but the student will receive credit for the course.

NC (No Credit): Students who do not satisfactorily complete minimum course requirements will receive NC. A grade of NC is not computed in the GPA and the student will not receive credit for the course.

Note: Some schools, scholarships and honorary societies do not accept this grading system and/or convert grades of CR to C and NC to F. Students planning to transfer to another institution should talk to an academic advisor at that institution about possible consequences of CR/NC grades.

Open-Entry, Open-Exit: Students may register for courses that have flexible entry and/or exit points with the open-entry, open-exit grading option. Depending on the course, the student may receive a traditional (A, B, C, D, F), credit/no credit (CR/NC) or an in progress (PR) grade.

Incomplete Grade Assignment and Removal

A grade of "I" (incomplete) is given when circumstances beyond the student's control have prevented completion of the work for a course within the official dates of a term. In no case is an "I" to be used to avoid a failing grade or to allow extra time to complete work normally expected.

Removal of an "I" grade can only be accomplished by completing the work in a manner acceptable to the instructor no later than the 10th day of the following term.

An "I" not made up by the 10th day of the following term will automatically revert to an F or NC on the student's record and cannot be changed by work completion.

Repeat Course Processing

When a student has enrolled in a course more than once, each course enrollment and all grades will appear on the student's transcript. Only the higher grade will be used to calculate the GPA. This policy applies to courses with identical course abbreviations and numbers except for the following: topics, problems, internship and cooperative education courses and when course abbreviations and numbers change as a result of new programs and/or program revisions. It does not affect any courses taken prior to Fall 1991 (see *Course Repetition Limit*, page 12).

Note: For repeat course processing CR grades are computed as a C; NC grades are computed as an F. Also, certain forms of financial aid will not provide assistance to students who repeat courses previously completed successfully. Compliance with such regulations is the student's responsibility.

Grade Appeals

It is the student's responsibility to communicate concerns he/she may have about any grade in a class to the instructor of the class. If the issue is not resolved, the student may formally appeal a final grade for the following reasons:

- Inconsistency between what is written in the syllabus and what is practiced;
- Grade miscalculation;
- Errors in the final exam if a change in the final exam grade would cause a change in the course grade; or
- Inconsistent classroom practices.

A student may not appeal disagreements with teaching methodologies, attendance policies or grade weighting methods.

Appeal Process: The student must begin the formal grade appeal process by obtaining a Grade Appeal Form and process guide from the school in which the course was taken and submitting it to the instructor by the end of the first week of the term following the course. If the instructor is not available the student should submit a Grade Appeal Form to an academic administrator in the school. If the request for a grade change is approved, the instructor or academic administrator will submit a grade correction to the Records Office.

If the appeal is denied, the student may further appeal to the school or directly to the Instructional Grade Appeal Board.

Registration Related Grade Appeals: A student who fails a class because he/she was physically unable to drop or complete the class, (Example: hospitalization or military service) may appeal in writing to the assistant registrar. The appeal, along with required supporting documentation, must be submitted by the end of the first week of the following term. Registration Related Grade Appeal forms are available in the Records Office at the Main Campus, the Admissions Office at all other campuses and through the Registration/Grades tab of *my* CNM.

Academic Renewal

Students who return to CNM after an extended absence may petition to remove complete academic terms from future degree and GPA considerations. This policy allows CNM students who had previously experienced academic difficulty to make a fresh start. Approval of the petition is based on the conditions listed below. If approved, Academic Renewal will result in a new grade point average.

1. To be eligible for Academic Renewal the student must have been absent from CNM for at least three consecutive years – 9 terms – prior to petitioning for Academic Renewal and must have completed at least 15 credit hours since his or her return with at least a 2.0 GPA.
2. Courses taken prior to Fall 1988 term are not eligible for Academic Renewal. Academic Renewal will affect all courses with grades of D or F taken between Fall 1988 and the student's absence.
3. Academic Renewal may be granted only one time per student and cannot be reversed.

4. Any academic suspensions that occurred in the past shall remain on the student's permanent academic record.
5. All attempted coursework and grades will remain on the student's official transcript. All courses affected by Academic Renewal will be excluded from the GPA calculation and may not be used to meet program and/or residency requirements for future graduation. A statement will be placed on the student's transcript indicating that Academic Renewal status was granted.
6. Academic Renewal does not affect any previous academic, financial or administrative determination made by CNM. Other institutions/ agencies may or may not choose to honor this policy in evaluating a student's transcript.
7. Academic Renewal does not override the enrollment requirements of certain programs that require a specific minimum grade point average based on all coursework. Re-entry into any academic program is not automatic.
8. Forms for Academic Renewal are available in the Records Office at Main Campus, the Admissions Office at all other campuses and through the Registration/Grades tab of *my* CNM.

ACADEMIC STANDING

Honor Roll: The Dean's List is compiled each term, listing students who completed 12 or more credit hours with traditional grades during the term and who achieved a term GPA of 3.5 or higher.

Graduation with Honors: Students earning cumulative GPA's of 4.0 graduate with highest honors. Students with cumulative GPA's of 3.6 to 3.9 graduate with honors. Degrees, certificates and official CNM transcripts note this award.

Warning: A student whose cumulative GPA is between 1.75 and 1.99 in a given term will receive a warning. Notification of academic warning appears on the student's grade report at the end of each term.

Probation: A student whose cumulative GPA (based on at least 16 GPA credit hours attempted at CNM) falls below 1.75 in a given term will be placed on probation effective with the following term of enrollment. Students are continued on probation if they withdraw from CNM while on probation. Notification of academic probation appears on the student's grade report at the end of each term.

Note: Some Health, Wellness & Public Safety programs may have specific requirements that affect a student's eligibility to continue in the program. Students should refer to the program handbook.

Suspension: After two consecutive terms of probation a student will be suspended from CNM when both the term and cumulative GPA are below 1.75. The duration of the initial suspension is one term; for subsequent suspensions, one year. Notification of academic suspension appears on the student's grade report at the end of each term and in a notification letter sent to the student.

If a suspended student has pre-registered for the next term, his/her schedule will be deleted and a refund of all fees and tuition will be authorized. A suspended student may be eligible to enroll in courses numbered 0999 and below during the student's initial suspension period.

Suspension Appeals: A student who has been suspended may submit a written appeal (along with appropriate supporting documentation), explaining the unusual circumstances and justifying why he or she should be readmitted, to the Director of Enrollment Services, who will approve or deny the appeal. If the director denies the appeal, the appeal will be referred to the Student Academic Appeals Committee. The student may present the case to the committee in person. The decision of the Committee is final.

STUDENT ACADEMIC RECORDS

The Records Office maintains official academic records. These records include, but are not limited to: the admissions form, high school and/or college transcripts, grades and academic standing.

CNM's policy for maintaining confidentiality of student academic records is in accordance with the Family Educational Rights and Privacy Act of 1974 (FERPA, P.L. 93-380, 512). Copies of the Rights and Privacy Act are available for examination in the Records Office at the Main Campus and the Admissions Offices at the Montoya and South Valley campuses and Westside Campus.

Access to Student Academic Records

All currently enrolled and former students may have access to their academic records. Other individuals and agencies that may have access to students' records include:

- CNM officials who have a legitimate educational interest in the records
- Officials of another school in which a student seeks or intends to enroll.
- Officials of the U.S. Department of Education, the Comptroller General and state and local educational authorities
- Organizations providing the student's financial aid or determining or assisting in determining financial aid decisions concerning eligibility, amount, condition and enforcement of terms of said aid
- Federal, state and local officials or authorities if required by a state or federal law
- Organizations conducting certain studies for or on behalf of the college
- Accrediting institutions
- Organizations or individuals conducting studies for or on behalf of CNM
- Individuals serving a judicial order or a lawfully issued subpoena, provided that a reasonable effort is made to notify the student prior to compliance
- Honor societies and other chartered student organizations for determining membership
- Any person with the written consent of the student (release forms are available at cnm.edu)
- Appropriate parties in a health or safety emergency
- Authorized recruiters of the U.S. Armed Forces, as per the Solomon Amendment

Public Directory Information: CNM has defined public directory information as:

- Student's name
- Major discipline
- Classification
- Dates of attendance
- Awards and honors
- Degrees/certificates awarded

This information is available to the public and can be released unless an annual written request to withhold the information is on file in the Records Office. Confidentiality Request forms and Authorization for the Release of Educational Records forms are available in the Registration/ Grades tab of *my* CNM and in the Records Office.

Challenge of Contents: Students have the right to challenge the content of their academic record if they feel the information is misleading, inaccurate or in violation of privacy or other rights. However, the fairness of a grade may not be challenged under this provision. Any dispute over the contents of the record will be handled through informal discussions between the student and the Records Office. If such informal meetings

are not satisfactory, the student has the right to a formal hearing before an appeals committee. Students have the right to file with the U.S. Department of Education a complaint concerning alleged failures by CNM to comply with the requirements of FERPA.

Change of Address: Students are expected to keep CNM informed of their current mailing and permanent addresses. Changes may be processed online through the Students tab in *my* CNM or written notice to the Records Office on the Main Campus or the Admissions offices at all other campuses. Address Change forms are available at any of these offices and online at cnm.edu. Address changes submitted by e-mail or by telephone are not accepted.

Change of Name: Students must bring appropriate documentation (at least two types of identification showing the new name) to the Records Office on the Main Campus or the Admissions Offices at the Montoya and South Valley campuses and Westside Campus to change their name on their CNM records. Name change forms are available at any of these offices and online at cnm.edu. Examples of such documentation are: marriage certificate, birth certificate, driver's license, original social security card or court order for legal name change.

Release of Transcripts: Official CNM transcripts are available directly from the Records Office and through the Admissions Offices at the Montoya and South Valley campuses and Westside Campus. Transcript request forms are available at any of these offices and online at cnm.edu. Transcripts may be requested in person, by fax or by phone. Phone requests may only be used for sending transcripts to another postsecondary institution. No transcript is issued until all institutional obligations are paid. Information on transcript fees is available at cnm.edu.

Transcripts from other institutions received by CNM are not copied for or returned to students.

Social Security Number: Under the federal 1997 Tax Relief Act, CNM is required to obtain the Social Security number of each student in order to report educational credits to the U.S. Internal Revenue Service (IRS) and to the student at the end of each tax year. Refusal to provide a valid Social Security number may result in a fine levied on the student by the IRS. The privacy of a student's Social Security number is protected under FERPA and covered under CNM's Access to Student Academic Records Policy (see above). A student who chooses not to use his/her SSN as their CNM student number must complete an Alternate ID Request Form, available at any Admissions office, the Records office and online at cnm.edu.

Student Right to Know and Campus Security Act: Student retention and completion data are available from CNM's Planning, Budget and Institutional Research Office. A graduate job placement table is on page 48. Campus security policies and crime statistics are published in the Rules and Policies section of this catalog and online at cnm.edu.

MOVING ON

MOVING ON

GRADUATION REQUIREMENTS, INFORMATION AND PROCESS

ACHIEVE THE DREAM • BE A CNM GRADUATE!

Graduation from CNM is an important step for a student in meeting their education and career goals. With a CNM certificate or degree, a CNM graduate will join a growing number of successful CNM alumni by increasing their job and future educational opportunities.

Students must apply for graduation. To receive a certificate or degree from CNM, a student must complete CNM's Graduation Requirements, Graduation Application Process and pay any debts to CNM in full.

Any student with questions about graduation requirements or the graduation application process should meet with an academic advisor, achievement coach or program director.

GRADUATION REQUIREMENTS FOR CERTIFICATES AND DEGREES

Official Major: Current students must make official declaration of the major (program) for graduation (see page 12 on adding, changing and declaring majors).

Graduation Catalog: Current students may choose to complete their program requirements as defined in the catalog in effect when they earned their first credit(s) at CNM or a later catalog as long as the catalog is not more than five years old.

Note: Course pre- and corequisites must be met for each course at the time of registration, regardless of the catalog under which a student will graduate.

Required Coursework: All program requirements must be completed, including all courses listed in the graduation catalog.

Note: Courses numbered below 1000 cannot be used to meet program graduation requirements.

Approved transfer, nontraditional, exam credit and/or waivers or substitutions used to meet program requirements must be on file in the CNM Records Office at least two weeks prior to submitting their Graduation Application Packet (see page 47).

Note: A student may be required to make up deficient credit resulting from course substitution or transfer. A course waiver does not require the student to make up the credits of the waived course. Because all CNM graduates in degree programs must complete a minimum of 60 credits and 90 percent of the credits required in their certificate program, there is a limit on the number of course waivers that can be granted. (Example: If a program requires 64 credits, a maximum of 4 credits may be waived. If a program requires 68 credits, a maximum of 8 credits may be waived.)

All credits used for graduation must be displayed on the student's CNM transcript.

All career and technical courses used to meet program requirements must have a grade of C or better and all arts and sciences courses, a minimum grade of D. Career and technical courses more than ten years old must have been officially validated by the instructional school in which the course was offered.

Residency Requirement: At least one-quarter of the required program courses and credit hours for a certificate and 12 credit hours of the required program coursework for a degree must be completed at CNM.

Note: Credit based on challenge exams and courses graded AU do not apply toward the graduation residence requirement.

GPA Requirement: A cumulative GPA of 2.0 or better in the program is required (unless otherwise stated in the program description).

APPLYING FOR GRADUATION

1. Submit a Graduation Application Packet (GAP) for each completed program. GAPs are available through the Students tab in *my* CNM and online at cnm.edu.
2. Completed packets must be submitted to the Academic Advisement and Career Development office during the term in which the student finishes their program.
   Submitted packets will be processed in the order received.
   Note: Non-current students have up to one year after their last term of enrollment at CNM to apply for graduation.

GRADUATION WITH HONORS

A student earning a cumulative GPA of 4.0 will graduate with highest honors. A student with a cumulative GPA of 3.6 to 3.9 will graduate with honors. Degrees, certificates and official CNM transcripts note these awards.

UPDATING CERTIFICATES

A student who has received a certificate may update his/her skills and earn a subsequent certificate in that program when:

- The previously earned certificate is 10 years old or older and
- 100 percent of the certificate coursework was completed within the past 10 years; and
- The student has met all other graduation requirements as stated in the CNM Catalog

UPDATING ASSOCIATE DEGREES

A student who has received an associate degree from CNM may earn a subsequent associate degree in the same major (program) when:

- The student completes, at CNM, a minimum of 30 credit hours of new or additional required program course work (see note below) and
- The student has met all other graduation requirements as stated in the CNM Catalog.

Note: These credits must be earned in courses required by the program for graduation and may not have already been used to satisfy graduation requirements in the student's prior degree in that major (program) or by completing an additional concentration in the program. These new and/or additional credits cannot be earned by repeating courses that were used for graduation in the prior CNM degree in that major (program).

GRADUATION COMMENCEMENT CEREMONY

CNM conducts two "graduation commencement ceremonies" each year, at the end of the fall and spring terms. Students graduate in the term in which all graduation requirements are completed even if there is no graduation ceremony scheduled that term. Information about the graduation commencement ceremony is available at cnm.edu.

Graduation Commencement Ceremony Dates are posted in the fall and spring *Schedule of Classes*.

TRANSFERRING FROM CNM

CNM has a number of articulation agreements with many 4-year universities in the state. Please see the Transfer Information web page **cnm.edu/transferout** for links to specific agreements and transfer information. Many of the agreements offer a course-by-course guide to a specific degree. In addition, you should work with an advisor to be sure the classes you take will have the best transferability possible.

CNM ALUMNI ASSOCIATION

The CNM Alumni Association is a free volunteer organization of graduates and friends who want to maintain a mutually beneficial relationship with the college. All certificate and degree graduates are invited to join the Association. Members will receive benefits including volunteer and service learning opportunities, special alumni events, campus privileges, professional networking, communications, and awards and recognition. To sign up for membership, visit cnm.edu/alumni to fill out the on-line application.

CONTACT INFORMATION

CNM Alumni Association, CNM Foundation Office, Main Campus, (505) 224-4685, alumni@cnm.edu.

GRADUATE EMPLOYMENT DATA 2007-2008

About the Graduate Employment Data

For more information and/or explanation about the graduate employment data on these pages, contact the Job Connection Center. For local and state employment and wage trends, go to **dol.state.nm.us/eds/index.html.** For national employment and wage trends go to **acinet.org.** Programs not listed have no graduates for this reporting cycle.

CONTACT INFORMATION

Main Campus: (505) 224-3060, cnm.edu/depts/jcc

	TOTAL GRADUATES	CONTINUING EDUCATION	% EMPLOYED IN [1] TRN-RELATED JOB	WAGE RANGE [2]
Air Conditioning, Heating & Refrigeration, Certificate	36	9	88%	15.00 - 28.00
Accounting, Certificate	23	6	100%	11.00 - 22.00
Accounting, Degree	57	6	97%	11.00 - 22.00
Alternative Teacher Licensure, Certificate	19	0	100%	11.31 - 16.83
Architectural/Engineering Drafting Technology, Certificate	18	13	25%	17.00
Architectural/Engineering Drafting Technology, Degree	12	4	50%	14.00
Automotive Technology, Certificate	30	10	100%	10.33 - 16.75
Baking, Certificate	27	13	100%	8.00 - 18.27
Biotechnology, Degree	6	2	50%	17.00
Bookkeeping, Certificate	36	7	64%	10.00 - 16.92
Business Administration, Certificate	23	6	69%	11.00 - 18.32
Business Administration, Degree	45	10	83%	10.00 - 17.30
Carpentry, Certificate	12	3	50%	25.00
Child, Youth & Family Development, Degree	21	7	90%	10.00 - 14.75
Clinical Laboratory Assistant, Certificate	9	3	100%	9.75 - 10.64
Computer Information Systems, Certificate	12	4	100%	13.75 - 20.19
Computer Information Systems, Degree	25	6	80%	9.65 - 20.36
Computing Technology, Certificate	3	1	100%	Not Reported
Computing Technology, Degree	23	7	80%	8.75 - 20.00
Construction Management Technology, Degree	6	0	67%	Not Reported
Construction Technology, Degree	17	1	91%	12.50 - 25.00
Cosmetology, Degree	30	1	100%	7.15 - 15.00
Court Reporting, Certificate	2	1	100%	13.80
Criminal Justice, Degree	27	4	85%	7.50 - 28.80
Culinary Arts, Degree	31	4	88%	8.00 - 18.27
Dental Assistant, Certificate	13	0	100%	9.00 - 15.00
Diagnostic Medical Sonography, Degree	14	0	64%	26.00 - 33.00
Diesel Equipment Technology, Certificate	21	1	88%	12.00 - 19.23
Electrical Trades, Certificate	55	22	80%	9.00 - 30.69
Electronics Technology, Certificate	21	6	83%	15.00 - 31.53
Electronics Technology, Degree	16	4	57%	16.00 - 31.53
Elementary Education, Degree (changed to Teacher Education)	49	30	100%	11.80 - 19.00
Emergency Medical Service Paramedic, Certificate (changed to degree)	13	0	90%	12.00 - 21.00
Engineering, Degree (formerly Pre-Engineering)	11	9	100%	Not Reported
Environmental Safety & Health, Degree	3	3	-	N/A
Film Crew Technician, Certificate	24	2	56%	10.00 - 23.50
Fine Arts, Degree	4	1	50%	Not Reported
Fire Science, Degree	13	0	78%	13.42 - 17.06
Fitness Technician, Certificate	11	1	100%	8.00 - 30.00
Food Service Management, Certificate	32	11	100%	10.50 - 18.27
General Education, Certificate	2	2	-	N/A
General Studies, Degree	28	20	100%	15.69 - 24.50
Geographic Information Technology, Certificate	1	0	100%	20.00

	TOTAL GRADUATES	CONTINUING EDUCATION	% EMPLOYED IN [1] TRN-RELATED JOB	WAGE RANGE [2]
Geographic Information Technology, Degree	1	0	100%	Not Reported
Health Information Technology, Degree	12	1	90%	8.50 - 29.27
Health Unit Coordinator, Certificate	46	16	87%	8.50 - 12.42
Hospitality & Tourism, Certificate	4	1	100%	10.00
Hospitality & Tourism, Degree	6	1	100%	10.00
Integrated Studies, Degree	125	70	74%	8.00 - 25.15
Judicial Studies, Certificate	1	1	-	N/A
Landscaping, Certificate	2	0	0%	N/A
Liberal Arts, Degree	344	209	87%	8.50 - 23.00
Machine Tool Technology, Certificate	4	0	75%	16.00 - 19.00
Manufacturing Technology, Certificate	1	1	-	N/A
Manufacturing Technology, Degree	3	1	100%	24.50
Mechanical Technology, Degree	7	1	100%	26.00
Medical Coding, Certificate	11	1	50%	17.00 - 18.50
Medical Laboratory Technician, Degree	17	2	100%	13.87 - 19.12
Medical Office Assistant, Certificate	20	9	71%	9.00 - 14.50
Metals Technology, Degree	13	3	100%	16.00 - 19.96
Networking Technology, Certificate (changed to CIS, degree)	1	0	100%	25.00
Networking Technology, Degree (changed to CIS, degree)	13	2	63%	10.96 - 26.44
Nursing Assistant, Certificate	52	18	96%	9.89 - 24.34
Nursing, Degree	139	1	95%	20.53 - 35.00
Office Assistant, Certificate	12	4	100%	11.74 - 17.30
Office Technology, Certificate (formerly Office Administration, Certificate)	4	0	100%	11.31 - 13.82
Office Technology, Degree (formerly Office Administration, Degree)	16	4	100%	11.25 - 15.32
Paralegal Studies, Degree	18	1	71%	11.29 - 19.25
Paralegal Studies Post Degree, Certificate	1	0	100%	12.26
Pharmacy Technician, Certificate	26	6	100%	9.00 - 14.38
Phlebotomy, Certificate	60	19	88%	9.00 - 11.77
Photonics Technology, Certificate	7	2	75%	16.00 - 31.53
Photonics Technology, Degree	9	2	100%	18.00 - 31.53
Plumbing, Certificate	37	6	87%	19.50 - 28.00
Practical Nursing, Certificate	34	2	92%	15.05 - 26.00
Pre-Management, Degree	88	47	94%	9.49 - 21.63
Professional Cooking, Certificate	36	21	100%	8.00 - 10.50
Project Management, Degree (changed to Business Administration)	4	0	50%	Not Reported
Radiologic Technology, Degree	21	0	90%	15.30 - 30.72
Residential Wiring, Certificate	67	33	77%	9.00 - 34.85
Respiratory Therapy, Degree	26	1	100%	20.00 - 26.75
Surgical Technology, Certificate	11	0	100%	15.00 - 19.57
Technology Management & Training, Degree	1	1	-	N/A
Transportation Technology, Degree	3	0	-	N/A
Truck Driving, Certificate	60	5	87%	9.62 - 39.42
Veterinary Technology, Degree	16	0	92%	10.00 - 14.00
Welding, Certificate	25	11	86%	14.00 - 20.67
TOTALS			**87%**	

1 *Excludes those not located, not seeking training-related job, continuing school, or serving in military*

2 *Not necessarily entry-level wages; only includes wages whereby the acquisition of a degree/certificate resulted in a training-related position or promotion.*

Not all graduates report wages.

For local and state employment and wage trends, go to dol.state.nm.us/eds/index.html. For national employment and wage trends, go to acinet.org

New programs not listed have no graduates for this reporting cycle.

For more comprehensive information or explanation, contact the Job Connection Center at (505)224-3060.

PROGRAMS OF STUDY

PROGRAMS OF STUDY

This section presents the Programs of Study that CNM offers. CNM offers the following types of certificate and degree programs:

- **Certificate of Achievement (1-15 credit hours):** A certificate program that prepares students to enter either skilled or paraprofessional occupations or to upgrade workplace skills and knowledge.
- **Certificate of Completion (16-59 credit hours):** A certificate program that prepares students to enter either skilled or paraprofessional occupations or to upgrade workplace skills and knowledge.
- **Associate of Applied Science (AAS) Degree:** An AAS degree program prepares students to enter either skilled or paraprofessional occupations or to upgrade workplace skills and knowledge. An AAS program is not intended to transfer to bachelor's degree programs, although certain courses may be accepted at some institutions.
- **Associate of Arts (AA) Degree:** An AA degree program is designed for transfer into a bachelor's degree program in liberal arts, social or behavioral sciences or a professional field with such disciplines as its base.
- **Associate of Science (AS) Degree:** An AS degree program is designed for transfer into a bachelor's degree program in a technical, medical or professional field with such disciplines as its base.

The chart that begins on page 60 lists all CNM Programs of Study:

- in alphabetical order,
- the degree or certificate a student can earn in the program and
- the page number of where to find in-depth information about the program.

Page 59 lists programs by career cluster. Page 63 shows a listing of all degrees and certificates accredited by outside agencies or organizations.

Note: Courses numbered below 1000 cannot be used to meet program graduation requirements.

Students are advised to inquire about special requirements or background checks prior to enrolling in a program of study. Students with a criminal background may have limited employment opportunities in certain career fields or at certain job locations. Many employers perform pre-employment background checks. Others may require a security clearance. A criminal background may also prevent a student from performing an internship for some employers. By accepting a student into a program, CNM in no way guarantees a student will be accepted into an internship or be qualified for employment. Some programs may not be eligible for financial aid assistance. See the financial aid web page for ineligible programs (cnm.edu/depts/fass).

SCHOOL OF ADULT & GENERAL EDUCATION

Main Campus, Max Salazar Hall • (505) 224-3939

The School of Adult & General Education (SAGE) helps students progress in their academic and career pursuits through a variety of support courses and programs. SAGE faculty and staff help students develop the academic, work, and life skills necessary for success. The school strives to be a welcoming "front door" to the college for entering and returning students and a source of support for continuing students. The school aims to work with students' schedules by offering day and evening classes at all campuses.

SAGE's Developmental Education program offers courses to help students prepare for college in a variety of disciplines or areas: Accounting, Biology, Chemistry, College Success Experience (CSE), English, English for Speakers of Other Languages (ESOL), Health, Information Technology, Math, and Reading. While credits from developmental education courses are not transferable to other degree-granting institutions, these courses typically help students meet admissions requirements and program prerequisites. Courses are offered in a variety of formats (collaborative, self-paced, distance) so that students can choose the ones which best fit their learning styles. Developmental education courses are graded credit (CR) or no credit (NC) and not with traditional letter grades. Eligible students may receive financial aid for up to 30 credit hours of developmental coursework.

The Adult Basic Education (ABE) program within SAGE offers free instruction to adults who do not speak English as their first language or do not have their high school diploma. Courses are offered in English as a Second Language (ESL), basic literacy, and GED Preparation (GED). ESL courses provide English skills for non-native speakers to enhance their work, school and personal lives. Adult Basic Education students receive most of the same services as other CNM students but do not follow the procedures outlined in this catalog for admission and registration and are not eligible for financial aid. Adult Education courses are not graded. Students or other community members who have dropped ABE classes or who are not currently enrolled in classes can go to the Adult Education Learning Centers (AELC) at Main and Montoya campuses to continue their studies.

SAGE also offers transfer-level CSE courses which help students succeed in college and in their future careers. The school will also begin offering a transfer-level Reading course and a transfer-level ESOL course in the near future. These courses are credit-bearing, transfer to four-year colleges and universities, and are graded with traditional letter grades.

SAGE's students are supported outside of class by tutoring services, ABE registration services, and an Achievement Center. The Assistance Centers for Education (ACE) provides the following centers for academic support in SAGE: the Adult Education Learning Centers (AELC), the Writing and Reading Assistance Centers (WRAC), the Math Learning Centers (MLC), and the Open Computer Lab (OCL). ACE also supports students across CNM in their distance learning classes through their Online Writing Center (OWC). See page 25 for more information on ACE's support services. SAGE's Achievement Center offers one-on-one appointments with Achievement Coaches, who help students meet a variety of life challenges outside of academics, and offers assistance through the Center for Working Families. Student Transitional Programs also helps facilitate students' entry into the college through orientation sessions, campus tours, and assistance registering for classes and meeting with advisors.

Additional information on testing, registration, and class locations is available at MS 570 at Main Campus; (505) 224-3939, KC 1 at Main Campus; (505) 224-4282, H 102 at Montoya Campus; (505) 224-5993, and the Main Office at South Valley Campus; (505) 224-5061. For information regarding the Westside Campus, please contact Main Campus regarding registration and advising hours available at Westside.

SCHOOL OF APPLIED TECHNOLOGIES

Main Campus, Ted Chavez Hall • (505) 224-3711

The School of Applied Technologies provides technology-enriched learning environments dedicated to individual learning and designed to produce successful career opportunities and positive change for individuals. The school is dedicated to supporting the workforce and economic development needs of the community and state. Guided by industry advisory groups, the School of Applied Technologies offers outstanding faculty and state-of-the-art practice laboratories and courses that provide entry-level career opportunities and retooling/retraining for current workers, including certificate programs and associate degrees with concentration options that allow students to specialize in areas of individual interest.

A number of the programs are nationally accredited (see page 63 for a complete listing). Students who have questions on course prerequisites or course transferability (to or from CNM) are encouraged to consult with program directors or program chairs. Challenge examinations are available for some courses.

In addition to technology skills, students need employability skills in order to succeed in the modern workplace environment. Jobs in the 21st century require employees who have good interpersonal and teamwork skills, are observant and can communicate, listen, locate and use information and read/write effectively. ACT WorkKeys® is a nationally-recognized system that identifies essential employability skills for specific occupations. CNM uses WorkKeys® and other supporting systems to insure that students completing the school's programs have the required skill levels. Students must provide their own personal protective equipment (hardhat and safety glasses or goggles) and appropriate lab clothes that comply with the School of Applied Technologies and/or Occupational Safety and Health Act (OSHA) standards.

Most programs require basic hand tools. Tool lists with approximate costs and purchase deadlines are provided by instructors at the beginning of each term. Students are encouraged to participate in nationally recognized student organizations whose activities are an integral part of the curriculum. Students working toward a degree or certificate must earn a grade of C or better in all career and technical courses to meet school completion and/or graduation requirements.

SCHOOL OF BUSINESS & INFORMATION TECHNOLOGY

Main Campus, Smith Brasher Hall • Room SB-103 • (505) 224-3811

The School of Business & Information Technology (BIT) faculty, staff and programs provide opportunities for students to "Build Business Careers." Preparing students for the world of Business & Information Technology is critical for success in the global economy. The School of Business & Information Technology offers (1) certificates, associate of applied science degrees and associate of arts degrees; and (2) the Cisco Academy, the Microsoft Academy and Oracle Academy.

The School of Business & Information Technology offers the following programs/courses:

Accounting (ACCT), Bookkeeping (ACCT), Certified Public Accountant (ACCT), Integrated Studies, Internal Revenue Service (IRS) Enrolled Agent Service (ACCT), Payroll Clerk (ACCT), Pre-Management (ACCT, IT, BA and general education courses), Tax Preparer for Individuals (ACCT), Technology Management and Training (associate of applied science degree and general education courses)

Business Administration (BA), Continuous Quality Improvement (BA), Entrepreneurship courses (BA), General Business (BA), Human Resources (BA), International Business courses (BA), Project Management (PM), Real Estate/Appraisal courses (BA)

Baking (CULN), Culinary Arts (CULN), Food Service Management (CULN), Hospitality and Tourism (HT), Professional Cooking (CULN)

Computer Information Systems (CIS), Information Technology (IT), Medical Office Assistant (OTEC), Medical Office Transcription (OTEC), Office Assistant (OTEC), Office Technology (OTEC), Records Clerk (OTEC), Word Processing (OTEC)

A minimum of 12 students is required for first term and elective courses. Certain courses are not offered every term. A student who registers for a School of Business & Information Technology program may be required to take English, reading and/or math placement tests. Advanced students may earn credit for on-the-job training through cooperative education and internship courses.

The New Mexico Two-year/Four-year Business Articulation Matrix and articulation agreements with several New Mexico postsecondary educational institutions offer course or program transfer opportunities for School of Business & Information Technology students. Please see the associate dean in the area of study for current articulation information.

SCHOOL OF COMMUNICATION, HUMANITIES & SOCIAL SCIENCES

Main Campus, Max Salazar Hall, Room MS-414 • (505) 224-3588

The School of Communication, Humanities & Social Sciences (CHSS) offers a wide range of classes designed to support a variety of programs. The CHSS curriculum provides students with a foundation for further educational studies and opportunities to improve self-expression and to enhance critical thinking. Courses are offered in the arts, social sciences, humanities, and education. The school supports the degrees and certificate programs for all of CNM, whether in business, applied technologies, the sciences, health, or other areas.

Degrees / Programs Offered

The School of Communication, Humanities & Social Sciences offers the following degrees and programs:

- Associate of Arts Degree in Child, Youth, and Family Development (2 tracks)
- Associate of Arts Degree in Early Childhood and Multicultural Education (3 tracks)
- Associate of Arts Degree in Teacher Education (5 tracks)
- Associate of Arts Degree in Fine Arts (2 tracks)
- Associate of Arts Degree in General Studies
- Associate of Arts Degree in Liberal Arts
- Certificate: General Education
- Certificate: Educational Paraprofessional

In addition, CHSS offers one post-baccalaureate program for students interested in obtaining a New Mexico Level I teaching license:

- Alternate Teacher Licensure Certificate (four concentrations):
  - Special Education
  - Secondary Education
  - Early Childhood Education
  - Elementary Education

Special Programs Offered

CHSS offers optional programs for students interested in an enhanced liberal arts education. One of these is the Honors program; the other is a partnership with the ROTC program at the University of New Mexico.

General Honors Program: The General Honors Program offers intensive interdisciplinary studies for qualified students. These courses are taught in a small-group seminar format and emphasize discussion, self-expression, and student participation. In order to qualify for the General Honors Program, students must have successfully completed nine hours of arts and sciences courses, have a 3.2 or higher cumulative GPA, and have earned a B or better in English 1101. These courses transfer into the Honors program at UNM.

Reserve Officer Training Corps (ROTC): Interested CNM students may register through CNM / CHSS for the University of New Mexico ROTC program. Courses are available in Air Force (AFAS), Army (MLS) or Navy (NAVS) branches of the military. Uniforms and textbooks are provided. These classes are offered on the Main Campus of UNM, and students should contact the appropriate personnel at UNM (see page 29) before enrolling.

SCHOOL OF HEALTH, WELLNESS & PUBLIC SAFETY

Main Campus, Jeannette Stromberg Hall • (505) 224-4111

The School of Health, Wellness & Public Safety (HWPS) is committed to providing a positive learning experience to improve, enrich and expand opportunities in students' lives. HWPS offers credit programs that lead to certificates, associate degrees and skill upgrading. Credit programs range in length from 12 weeks to 20 months and start in January, May or August. Most programs have prerequisite and required courses that must be completed with a grade of C or better. Although some of the HWPS programs are open enrollment, many of the programs require a petition process for admission.

The CNM website provides more information on each program in the "Areas of Study" pages. For more information contact the School of Health, Wellness, and Public Safety by calling (505) 224-4111 or by visiting the School website at cnm.edu/depts/hwps/index.php

General Program Information

The School of Health, Wellness & Public Safety provides both entry and advanced level training and skill upgrading in a variety of health care, wellness, public safety and community service fields. Certificates and associate degrees are awarded upon completion of program requirements.

Classes are held at the Main, Montoya, South Valley, Westside campuses and CNM Workforce Training Center as well as at various community agency sites. Students may experience supervised clinical, practicum or internship training at community agencies and organizations. Programs of study in the School of Health, Wellness & Public Safety include; Clinical Laboratory Assistant (CLA), Cosmetology (COS), Court Reporting (CR), Criminal Justice (CJ), Dental Assisting (DA), Diagnostic Medical Sonography (DMS), Emergency Medical Services (EMS), Fire Science (FS), Fitness Technician (FITT), Health Information Technology (HIT), Health Unit Coordinator (HUC), Judicial Studies (JUD), Medical Coding (HIT), Medical Laboratory Technician (MLT), Nursing Assistant (NA), Nursing Home/Health Attendant (NAHA), Nursing Degree (ADN), Paralegal Studies (PL), Pharmacy Technician (PT), Phlebotomy (PHLB), Radiologic Technology (RADT), Respiratory Therapy (RT), Surgical Technology (ST), Veterinary Technology (VT)

All Health, Wellness & Public Safety programs except Nursing Assistant (NA) and Nursing Home/Home Health Attendant (NAHA) require a high school diploma or equivalent and completion of the CNM placement tests to enroll. Most programs have prerequisites that must be met prior to enrolling in major courses. Health, Wellness & Public Safety programs require that students be in good physical condition and free of health conditions that could endanger themselves or others. Because of the widespread use of latex products, individuals who have an allergy to latex may find it difficult to successfully complete a Health, Wellness & Public Safety School program. Students may be required to have a physical exam and immunizations at their own expense. Credit by examination (challenge) is available for selected courses. Students should refer to the Program Description pages in the CNM Catalog for more specific information on admission and petition processes.

All School of Health, Wellness & Public Safety Career and Technical courses require a traditional grade of A, B or C to meet graduation requirements — or as otherwise indicated by the Program of Study. For School of Health, Wellness & Public Safety career and technical courses only offered for CR/NC, a grade of CR must be earned.

Pre- and corequisites are listed in course descriptions and are subject to change with each new catalog. It is the student's responsibility to meet the pre and/or corequisites in effect for the term in which a course is taken, regardless of the catalog under which the student entered or will graduate. Students may be prevented from enrolling or may be disenrolled if pre or corequisites are not met. Students who have successfully completed courses that no longer exist from previous catalogs will be accommodated.

Special Program Requirements

All Health Sciences programs require a health screening done by a licensed healthcare provider that verifies the student to be in good physical condition and free of health conditions that could endanger themselves or others. Many health programs require the student to be able to safely lift and/or move a minimum of 50 pounds. Students with a latex allergy may have difficulty completing a health program due to the widespread use of latex products in the healthcare setting.

Students in Health Sciences programs are required to undergo routine urine drug screening. For more information visit cnm.edu/depts/hwps/Drug_Screen.php

Health Sciences students may need to complete a criminal background screening prior to starting the program or prior to beginning their clinical experiences. For more information visit cnm.edu/depts/hwps/disqualifying_convictions.php

The State of New Mexico requires a criminal history screening on all allied health and nursing students (7.1.9 NMAC). Students with a felony conviction may not be able to complete program requirements, become licensed or certified, or gain employment in healthcare, public safety or fitness. Disqualifying felony convictions include: homicide, trafficking in controlled substances, kidnapping, false imprisonment, aggravated assault or aggravated battery, rape, criminal sexual penetration, criminal sexual contact, incest, indecent exposure or other related sexual offenses, crimes involving adult abuse, neglect or financial exploitation, crimes involving child abuse or neglect, crimes involving robbery, larceny, burglary, extortion, forgery, embezzlement, credit card fraud, receiving stolen property or an attempt, solicitation or conspiracy involving any of the felony convictions listed above. Students who have a history of these convictions should contact the New Mexico Department of Health, Division of Health Improvement at the following website dhi.health.state.nm.us/cchsp. If a student's background check results in a disqualifying event they have the opportunity to appeal it through a process known as "administrative reconsideration." Some programs do not allow the student to remain in the program pending administrative reconsideration but most programs do allow students to remain in the program and attend classes while they undergo administrative reconsideration. However, students will be immediately removed from the program should they not be given clearance from the state following administrative reconsideration.

Students with a disqualifying conviction, not resolved by the administrative reconsideration, will be removed or will not be allowed to remain in the program; additionally any student found to have a disqualifying felony conviction will not be allowed to register for any of the Allied Health or Nursing Programs.

SCHOOL OF MATH, SCIENCE & ENGINEERING

Main Campus, Max Salazar Hall • (505) 224-3561

The vision of The School of Math, Science & Engineering (MSE) is to provide students with a strong academic curriculum that supports certificate programs, associate degrees and transfer purposes. Additionally, MSE offers associate degrees in Biotech, Engineering and Environmental Safety and Health. Other course offerings include astronomy, biology, chemistry, math natural science, nutrition and physics. Most courses are transferable to other degree-granting institutions as freshmen and sophomore electives or requirements. Pre- and corequisites are listed in course descriptions and are subject to change with each new catalog. It is the student's responsibility to meet the pre- and/or corequisites in effect for the term in which a course is taken, regardless of the catalog under which the student entered or will graduate. Students may be stopped from enrolling or may be disenrolled if pre- or corequisites are not met.

ARTS AND SCIENCES COURSE CATEGORIES

Courses numbered 1000 and above in the subject codes listed below are offered through CNM's School of Communication, Humanities & Social Sciences and School of Math, Science & Engineering and are grouped into specific discipline areas. Many programs of study require some coursework from these areas; the course sequence charts in the Programs of Study section list the specific discipline area (for example, Social/Behavioral Science). These course categories are listed with an asterisk (*). Below is a guide to which subject codes are in each discipline:

English/Communication

ENG – English
COMM – Communication
JOUR – Journalism

Biological/Physical Science

ASTR – Astronomy
BIO – Biology
CHEM – Chemistry
PHYS – Physics

Fine Arts

ARTS – Art Studio
ARTH – Art History
MUS – Music
THEA – Theatre

Language

ARBC – Arabic
FREN – French
GER – German
PORT – Portuguese
SPAN – Spanish

Humanities

CST – Cultural Studies
ENG – English (Literature)
GNHN – General Honors
HIST – History
HUM – Humanities
PHIL – Philosophy
RLGN – Religion

Social/Behavioral Science

ANTH – Anthropology
ECON – Economics
GEOG – Geography
GNHN – General Honors
PSCI – Political Science
PSY – Psychology
SOC – Sociology

Mathematics

MATH – Mathematics

Nutrition

NUTR – Nutrition

FIND YOUR CAREER AT CNM

Central New Mexico Community College believes students are most successful when they begin their education with a career goal in mind. CNM uses career clusters and pathways to help students identify, plan and achieve career goals.

What are Career Clusters?

- Career clusters are groups of careers in business and industry that share similar skill sets and related occupations.
- Career clusters organize careers so that educators and students can target the education and skills needed for specific jobs.

Nationally, there are 16 career clusters. New Mexico is focusing on seven clusters to fill the economic and industry needs for skilled employees. The seven career clusters are:

1 Arts and Entertainment
2 Business Services
3 Communications and Information
4 Energy and Environmental Technology
5 Engineering, Construction and Manufacturing
6 Health and Biosciences
7 Hospitality and Tourism

What are Career Pathways?

A career pathway is an education plan that directly guides a student toward a chosen occupation in a career cluster. Career clusters can be used to investigate a wide range of career choices. The career cluster approach makes it easier for students to understand the importance of education and helps students select elective courses to enhance their careers. Each cluster contains a complete set of career pathways aligned with programs of study at CNM (cnm.edu/careers)

High school students may be able to take CNM courses through dual credit to earn college credit toward career and educational choices at CNM.

Current CNM students who have not made a career choice should meet with a CNM advisor who can help students investigate numerous career options.

Students returning to school will find many career pathways available to enhance their career or to pursue a new profession.

If a student's future plans include transferring to a four-year institution, CNM can help. Career clusters and pathways provide a relevant map to a career or additional education.

CNM Career Clusters and Pathways Online

The CNM website provides a rich resource of information about career clusters and pathways at CNM:

- Interactive diagrams show which CNM programs offer pathways in each cluster
- Program profiles let students know about classes they will take, employment potential, job titles and current pay rates for each pathway
- Visit cnm.edu/careers to access all these resources

How can CNM help with career choices?

CNM advisors can help students map out a personal career pathway to get a college degree or certificate in a timely manner. Students who are unsure of what profession to pursue will benefit from the career development process. The process helps students to:

- Develop an understanding of what kind of career is best tailored to their interests and aptitudes
- Eliminate career choices that do not match income needs and location and time frame requirements
- Create an academic plan that takes family and financial needs into consideration so students can complete their programs and fulfill their education and career goals

There are two ways to work on career development:

1) Work with an advisor or career and educational specialist in one of the Academic Advisement and Career Development (AACD) offices. Schedule an appointment or walk in to see an advisor, or contact AACD by phone at (505) 224-4321, e-mail at aacd@cnm.edu or online at cnm.edu/depts/aacd/index.php.
2) Take College Success Experience (CSE) courses offered through the School of Adult & General Education and work with an instructor and other students.

CONTACT INFORMATION

For more information contact Academic Advisement and Career Development by phone at (505) 224-4321, e-mail at aacd@cnm.edu or online at cnm.edu/depts/aacd/index.php.

CAREER CLUSTERS

The following are CNM programs listed under their appropriate New Mexico career clusters. Programs of study relevant to more than one career cluster are indicated with an asterisk*. An alphabetical list of programs can be found on pages 60-62; program information can be found on pages 69-196. *Note: diagrams of the seven New Mexico career clusters and information about specific pathways can be found online at* ***cnm.edu/careers.***

ARTS AND ENTERTAINMENT

- Computer Animation*
- Cosmetology
- Culinary Arts*
- Film Crew Technician*
- Fine Arts
- General Studies*

BUSINESS SERVICES

- Accounting (AAS degree, certificates in Accounting, Bookkeeping, Certified Public Accountant [CPA] Preparation, IRS Enrolled Agent Preparation, Payroll Clerk, Tax Preparer for Individuals)
- Bookkeeping
- Business Administration* (AAS degree, concentrations in Entrepreneurship, Financial Services, Management, Marketing, Project Management, Real Estate, certificates in Business Administration and Project Management, Continuous Quality Improvement, General Business, Human Resources)
- Computer Information Systems* (AAS degree, concentrations and certificates in Computer Programming, Database Technology, Digital Media, Network Administration, Software Systems and Applications, Systems Administration, Web Technology)
- Court Reporting
- Criminal Justice
- Health Information Technology*
- Integrated Studies
- Judicial Studies
- Medical Coding*
- Medical Office Assistant*
- Network Administration
- Office Assistant
- Office Technology
- Paralegal Studies
- Pre-Management
- Technology Management and Training

COMMUNICATIONS AND INFORMATION

- Alternative Teacher Licensure (certificates in Early Childhood, Elementary, Secondary, Special Education)
- Business Administration*
- Child, Youth and Family Development (AA degree, concentrations in Family Studies, Social Work)
- Computer Animation*
- Computer Information Systems*
- Early Childhood Multicultural Education (AA degree, concentrations in Birth Through 3rd Grade Teacher, Early Childhood Administrator, Family/Infant/Toddler Studies, certificate in Child Development)
- Educational Paraprofessional
- Film Crew Technician*
- General Studies*
- Liberal Arts
- Teacher Education (AA degree, concentrations in Career and Technical Education, Elementary, Elementary/Bilingual, Secondary, Special Education)

ENERGY AND ENVIRONMENTAL TECHNOLOGY

- Aerospace Technology* (AAS degree, certificate in Professional Pilot and Flight Instruction)
- Aviation Technology* (AAS degree, certificates in Airframe Maintenance Technology, Powerplant Maintenance Technology)
- Electronics Technology*
- Engineering*
- Environmental Safety and Health*
- Fire Science
- Geographic Information Technology*
- Geomatics Technology*
- Green Jobs Initiative
- Landscaping*
- Mechanical Technology*
- Metals Technology*
- Photonics/Laser Electro Optics*

ENGINEERING, CONSTRUCTION AND MANUFACTURING

- Aerospace Technology*
- Air Conditioning, Heating & Refrigeration
- Architectural/Engineering Drafting
- Automotive Technology
- Aviation Technology*
- Carpentry
- Computer-Assisted Drafting
- Computer Information Systems*
- Construction Management
- Construction Technology
- Diesel Technology
- Electrical Trades
- Electronics Technology*
- Engineering*
- Geographic Information Technology*
- Geomatics Technology*
- Landscaping*
- Machine Tool Technology
- Manufacturing Technology
- Mechanical Technology*
- Metals Technology*
- Photonics/Laser Electro Optics*
- Plumbing
- Project Management*
- Residential Wiring
- Transportation Technology
- Truck Driving
- Welding

HEALTH AND BIOSCIENCES

- Biotechnology
- Dental Assistant
- Diagnostic Medical Sonography
- Emergency Medical Services Programs (AAS degree in EMT Paramedic, certificates in EMS First Responder, EMT Basic, EMT Intermediate and Emergency Room Technician)
- Environmental Safety & Health*
- Fitness Technician*
- Health Informatics Program (AAS degree in Health Information Technology*, certificates in Health Unit Coordinator, Medical Office Assistant*, Medical Coding*)
- Medical Laboratory Sciences Programs (AS degree in Medical Laboratory Technician, certificates in Phlebotomy, Clinical Laboratory Assistant)
- Nursing Programs (AS degree in Nursing, certificates in LPN Refresher, Nursing Assistant, Nursing Home/Home Health Attendant, Practical Nursing, RN Refresher)
- Pharmacy Technician
- Radiologic Technology
- Respiratory Therapy
- Surgical Technology
- Veterinary Technology

HOSPITALITY AND TOURISM

- Baking
- Culinary Arts*
- Fitness Technician*
- Food Service Management
- Hospitality and Tourism
- Professional Cooking

PROGRAMS OF STUDY (ALPHABETICAL)

PROGRAM OF STUDY	DEGREE	CERTIFICATE	PAGE
ACCOUNTING	AAS	X	69
AEROSPACE TECHNOLOGY	AAS		72
AIR CONDITIONING, HEATING AND REFRIGERATION (UNDER MECHANICAL TECHNOLOGY)		X	74
AIRFRAME MAINTENANCE TECHNICIAN (ALSO UNDER AVIATION TECHNOLOGY)		X	81
ALTERNATIVE TEACHER LICENSURE (CERTIFICATES IN EARLY CHILDHOOD MULTICULTURAL EDUCATION, ELEMENTARY EDUCATION, SECONDARY EDUCATION, SPECIAL EDUCATION)		X	75
ANIMATION (CONCENTRATION UNDER COMPUTING TECHNOLOGY)		X	98
APPRENTICESHIPS IN COMMERCIAL CARPENTRY / ELECTRICAL TRADES / GENERAL TRADES / IRON WORKER / PLUMBING / SHEET METAL / INDUSTRIAL PLANT MAINTENANCE			77
ARCHITECTURAL / ENGINEERING DRAFTING TECHNOLOGY	AAS	X	78
ART HISTORY (CONCENTRATION UNDER FINE ARTS)			127
ART STUDIO (CONCENTRATION UNDER FINE ARTS)			127
AUTOMOTIVE SERVICE FUNDAMENTALS (ALSO UNDER TRANSPORTATION TECHNOLOGY AND AUTOMOTIVE TECHNOLOGY)		X	80/191
AUTOMOTIVE TECHNOLOGY (ALSO UNDER TRANSPORTATION TECHNOLOGY)		X	80/191
AVIATION TECHNOLOGY	AAS		81
AVIATION MAINTENANCE TECHNICIAN (UNDER AVIATION TECHNOLOGY)	AAS		81
BAKING (ALSO SEE CULINARY ARTS)		X	83
BILINGUAL EDUCATION (CONCENTRATION UNDER TEACHER EDUCATION)			186
BIOTECHNOLOGY	AS	X	84
BIRTH TO 3RD GRADE TEACHER (CONCENTRATION UNDER EARLY CHILDHOOD MULTICULTURAL EDUCATION)			115
BOOKKEEPING (UNDER ACCOUNTING)		X	69
BUSINESS ADMINISTRATION (CONCENTRATIONS: ENTREPRENEURSHIP, FINANCIAL SERVICES, LEADERSHIP DEVELOPMENT MANAGEMENT, MARKETING, PROJECT MANAGEMENT OR REAL ESTATE)	AAS	X	86
CARPENTRY (ALSO UNDER CONSTRUCTION TECHNOLOGY) (ALSO SEE APPRENTICESHIPS)		X	89/77
CAREER AND TECHNICAL EDUCATION (CONCENTRATION UNDER TEACHER EDUCATION)			186
CLASS B COMMERCIAL DRIVER'S LICENSE (UNDER TRUCK DRIVING)		X	193
CERTIFIED PUBLIC ACCOUNTANT (CPA) PREPARATION (UNDER ACCOUNTING)		X	69
CHILD DEVELOPMENT (UNDER EARLY CHILDHOOD MULTICULTURAL EDUCATION)		X	115
CHILD, YOUTH AND FAMILY DEVELOPMENT (CONCENTRATIONS: FAMILY STUDIES, SOCIAL WORK)	AA		90
CISCO CERTIFIED NETWORK ASSOCIATE (CCNA) (UNDER COMPUTER INFORMATION SYSTEMS)		X	93
CLINICAL LABORATORY ASSISTANT (UNDER MEDICAL LABORATORY SCIENCES)		X	155
COMPUTER ANIMATION (CONCENTRATION UNDER COMPUTING TECHNOLOGY)			98
COMPUTER-ASSISTED DRAFTING (CAD) (ALSO UNDER ARCHITECTURAL / ENGINEERING DRAFTING)		X	92/78
COMPUTER INFORMATION SYSTEMS (CONCENTRATIONS: COMPUTER PROGRAMMING, DATABASE TECHNOLOGY, DIGITAL MEDIA, NETWORK ADMINISTRATION, SOFTWARE SYSTEMS AND APPLICATIONS, SYSTEMS ADMINISTRATION, WEB TECHNOLOGY)	AAS	X	93
COMPUTER PROGRAMMING (CONCENTRATION UNDER COMPUTER INFORMATION SYSTEMS)			93
COMPUTING TECHNOLOGY (CONCENTRATIONS: COMPUTER ANIMATION)	AAS	X	98
CONSTRUCTION ESTIMATING AND SCHEDULING (UNDER CONSTRUCTION MANAGEMENT TECHNOLOGY)		X	99
CONSTRUCTION MANAGEMENT TECHNOLOGY	AAS		99
CONSTRUCTION TECHNOLOGY CONCENTRATIONS: ELECTRICAL OR GENERAL CONSTRUCTION	AAS		101
CONTINUOUS QUALITY IMPROVEMENT (UNDER BUSINESS ADMINISTRATION)		X	86
COSMETOLOGY	AAS		104
COURT REPORTING		X	105
CRIMINAL JUSTICE	AAS		106
CULINARY ARTS (CERTIFICATES IN BAKING, FOOD SERVICE MANAGEMENT AND/OR PROFESSIONAL COOKING)	AAS		108
DATABASE TECHNOLOGY (CONCENTRATION UNDER COMPUTER INFORMATION SYSTEMS)			93
DENTAL ASSISTANT		X	109
DEVELOPMENTAL EDUCATION			111
DIAGNOSTIC MEDICAL SONOGRAPHY	AS		112
DIESEL EQUIPMENT TECHNOLOGY (ALSO UNDER TRANSPORTATION TECHNOLOGY)		X	114/191
DIGITAL MEDIA (CONCENTRATION UNDER COMPUTER INFORMATION SYSTEMS)			93
EARLY CHILDHOOD MULTICULTURAL EDUCATION (CONCENTRATIONS: BIRTH-3RD GRADE, EARLY CHILDHOOD PROGRAM ADMINISTRATION AND FAMILY, INFANT, AND TODDLER)	AA		115
EARLY CHILDHOOD PROGRAM ADMINISTRATION (CONCENTRATION UNDER EARLY CHILDHOOD MULTICULTURAL EDUCATION)			115

PROGRAM OF STUDY	DEGREE	CERTIFICATE	PAGE
EDUCATIONAL PARAPROFESSIONAL		X	117
ELECTRICAL TRADES (ALSO UNDER CONSTRUCTION TECHNOLOGY) (ALSO SEE APPRENTICESHIP)		X	118/77
ELECTRONICS TECHNOLOGY (CONCENTRATIONS: GENERAL ELECTRONICS, PROCESS CONTROL)	AAS	X	119
ELEMENTARY EDUCATION (UNDER TEACHER EDUCATION)	AA		186
EMERGENCY MEDICAL SERVICES			120
FIRST RESPONDER		X	
EMERGENCY ROOM TECHNICIAN		X	
EMT- BASIC		X	
EMT- INTERMEDIATE		X	
EMT- PARAMEDIC	AAS		
ENGINEERING	AS		123
ENGLISH AS A SECOND LANGUAGE			124
ENTREPRENEURSHIP (CONCENTRATION UNDER BUSINESS ADMINISTRATION)			86
ENVIRONMENTAL SAFETY AND HEALTH	AAS		125
FAMILY STUDIES (CONCENTRATION UNDER CHILD, YOUTH AND FAMILY DEVELOPMENT)			90
FAMILY, INFANT AND TODDLER (CONCENTRATION UNDER EARLY CHILDHOOD MULTICULTURAL EDUCATION)			115
FILM CREW TECHNICIAN		X	126
FINE ARTS (CONCENTRATIONS: ART HISTORY, ART STUDIO)	AA		127
FIRE SCIENCE	AAS		129
FITNESS TECHNICIAN		X	131
FOOD SERVICE MANAGEMENT (ALSO SEE CULINARY ARTS)		X	133/108
FRAMING (UNDER CARPENTRY)		X	89
GED PREPARATION			134
GENERAL BUSINESS (UNDER BUSINESS ADMINISTRATION)		X	86
GENERAL CONSTRUCTION (CONCENTRATION UNDER CONSTRUCTION TECHNOLOGY)			101
GENERAL STUDIES	AA	X	135
GEOGRAPHIC INFORMATION TECHNOLOGY	AAS	X	136
GEOMATICS TECHNOLOGY		X	137
HEALTH INFORMATION TECHNOLOGY	AAS		138
HEALTH UNIT COORDINATOR		X	140
HOSPITALITY AND TOURISM	AA	X	141
HUMAN RESOURCES (UNDER BUSINESS ADMINISTRATION)		X	86
INFORMATION TECHNOLOGY CAREERS			143
INTEGRATED STUDIES	AAS		144
IRS ENROLLED AGENT PREPARATION (UNDER ACCOUNTING)		X	69
JUDICIAL STUDIES		X	145
JUDICIAL STUDIES FUNDAMENTALS (UNDER JUDICIAL STUDIES)		X	145
LANDSCAPING		X	147
LEADERSHIP DEVELOPMENT (CONCENTRATION UNDER BUSINESS ADMINISTRATION)			86
LIBERAL ARTS	AA		148
LICENSED PRACTICAL NURSE REFRESHER (UNDER NURSING)		X	161
MACHINE TOOL TECHNOLOGY (ALSO UNDER METALS TECHNOLOGY)		X	150/159
MANAGEMENT (CONCENTRATION UNDER BUSINESS ADMINISTRATION)			86
MANUFACTURING TECHNOLOGY (MEMS / SMT TECHNICIAN)	AAS	X	151
MARKETING (CONCENTRATION UNDER BUSINESS ADMINISTRATION)		X	86
MECHANICAL TECHNOLOGY (CONCENTRATIONS: AIR CONDITIONING, HEATING AND REFRIGERATION, PLUMBING)	AAS		152
MEDICAL (CONCENTRATION UNDER OFFICE TECHNOLOGY)			167
MEDICAL CODING		X	154
MEDICAL LABORATORY SCIENCES			155
PHLEBOTOMY		X	
CLINICAL LABORATORY ASSISTANT		X	
MEDICAL LABORATORY TECHNICIAN	AS		
MEDICAL LABORATORY TECHNICIAN (UNDER MEDICAL LABORATORY SCIENCES)			155
MEDICAL OFFICE ASSISTANT		X	158
MEDICAL OFFICE TRANSCRIPTION (UNDER OFFICE TECHNOLOGY)		X	167
MEMS / SMT TECHNICIAN (UNDER MANUFACTURING TECHNOLOGY)		X	151
METALS TECHNOLOGY	AAS		159
NETWORK ADMINISTRATION (CONCENTRATION UNDER COMPUTER INFORMATION SYSTEMS)			93

PROGRAM OF STUDY	DEGREE	CERTIFICATE	PAGE
NURSING			161
NURSING HOME/HOME HEALTH ATTENDANT		X	
NURSING ASSISTANT		X	
PRACTICAL NURSING		X	
NURSING DEGREE	AS		
LICENSED PRACTICAL NURSING REFRESHER		X	
REGISTERED NURSE REFRESHER		X	
NURSING ASSISTANT (UNDER NURSING)		X	161
NURSING HOME/HOME HEALTH ATTENDANT (UNDER NURSING)		X	161
OFFICE ASSISTANT		X	166
OFFICE TECHNOLOGY (CONCENTRATIONS: MEDICAL AND OFFICE TECHNOLOGY)	AAS	X	167
PARALEGAL STUDIES	AAS	X	170
PARAPROFESSIONAL (SEE EDUCATIONAL PARAPROFESSIONAL)		X	117
PAYROLL CLERK (UNDER ACCOUNTING)		X	69
PHARMACY TECHNICIAN		X	172
PHLEBOTOMY (UNDER MEDICAL LABORATORY SCIENCES)		X	155
PHOTONICS TECHNOLOGY	AAS	X	173
PLUMBING (ALSO UNDER MECHANICAL TECHNOLOGY) (ALSO SEE APPRENTICESHIP)		X	174/152/77
POWERPLANT MAINTENANCE TECHNICIAN (UNDER AVIATION TECHNOLOGY)		X	81
PRACTICAL NURSING (UNDER NURSING)		X	161
PRECISION WOODWORKING (UNDER CARPENTRY)		X	89
PRE-MANAGEMENT	AA		175
PROCESS CONTROL (CONCENTRATION UNDER ELECTRONICS TECHNOLOGY)			119
PROFESSIONAL COOKING (ALSO SEE CULINARY ARTS)		X	177
PROFESSIONAL PILOT AND FLIGHT INSTRUCTION (ALSO UNDER AEROSPACE TECHNOLOGY)		X	178/72
PROJECT MANAGEMENT (CONCENTRATION UNDER BUSINESS ADMINISTRATION)			86
RADIOLOGIC TECHNOLOGY	AS		179
REAL ESTATE (CONCENTRATION UNDER BUSINESS ADMINISTRATION)			86
RECORDS CLERK (UNDER OFFICE TECHNOLOGY)		X	167
REGISTERED NURSE REFRESHER (UNDER NURSING)		X	161
RESIDENTIAL WIRING (ALSO UNDER CONSTRUCTION TECHNOLOGY)		X	181/101
RESPIRATORY THERAPY	AS		82
SECONDARY EDUCATION (CONCENTRATION UNDER TEACHER EDUCATION)			186
SOFTWARE SYSTEMS AND APPLICATIONS (CONCENTRATION UNDER COMPUTER INFORMATION SYSTEMS)			93
SPECIAL EDUCATION (CONCENTRATION UNDER ALTERNATIVE TEACHER LICENSURE AND TEACHER EDUCATION)			75
STENOTRANSCRIPTION (UNDER COURT REPORTING)		X	105
SURGICAL TECHNOLOGY		X	184
SYSTEMS ADMINISTRATION (CONCENTRATION UNDER COMPUTER INFORMATION SYSTEMS)			93
TAX PREPARER FOR INDIVIDUALS (UNDER ACCOUNTING)		X	69
TEACHER EDUCATION (CONCENTRATIONS: CAREER AND TECHNICAL EDUCATION, BILINGUAL EDUCATION, ELEMENTARY EDUCATION, SECONDARY EDUCATION, SPECIAL EDUCATION)	AA		186
TECHNOLOGY MANAGEMENT AND TRAINING	AA		189
TRANSPORTATION TECHNOLOGY (CONCENTRATIONS: AUTOMOTIVE TECHNOLOGY, DIESEL EQUIPMENT TECHNOLOGY)	AAS		191
TRUCK DRIVING		X	193
VETERINARY TECHNOLOGY	AAS		194
WEB TECHNOLOGY (CONCENTRATION UNDER COMPUTER INFORMATION SYSTEMS)			93
WELDING (ALSO UNDER METALS TECHNOLOGY)		X	196/159
WORD PROCESSING (UNDER OFFICE TECHNOLOGY)		X	167

PROGRAM ACCREDITATION

Accounting, AAS degree, Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)

Air Conditioning, Heating and Refrigeration, certificate (under Mechanical Technology) Accredited by the Partnership for Air Conditioning, Heating, Refrigeration Association (PAHRA)

Airframe Maintenance Technician, certificate (under Aviation Technology) Certified under FAA Part 147

Automotive Technology, certificate (under Transportation Technology) Accredited by the National Automotive Technicians Education Foundation (NATEF)

Aviation Maintenance Technician, AAS degree (under Aviation Technology) Certified under FAA Part 147

Business Administration, AAS degree, Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)

Computer Information Systems, AAS degree, Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)

Construction Management Technology, AAS degree, Accredited by the American Council for Construction Education (ACCE)

Court Reporting, certificate, Approved by the National Court Reporters Association (NCRA)

Culinary Arts, AAS degree, Accredited by the American Culinary Federation (ACF)

Dental Assistant, certificate, Accredited by the American Dental Association (ADA)

Diagnostic Medical Sonography, AS degree, Accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP)

Health Information Technology, AAS degree, Accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)

Hospitality and Tourism, certificate and AA degree, Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)

Medical Laboratory Technician, AS degree, Accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)

Nursing, AS degree, Accredited by the National League for Nursing Accrediting Commission (NLNAC) and approved by the New Mexico Board of Nursing

Office Technology, AAS degree, Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)

Paralegal Studies, AAS degree, Approved by the American Bar Association (ABA), Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)

Paralegal Studies Post Degree certificate, Approved by the American Bar Association (ABA) (under Paralegal Studies)

Paramedic AAS degree, Accredited by New Mexico Joint Organization of Education (JOE), Accreditation in progress with the Commission on Accreditation of Allied Health Education Programs (CAAHEP)

Powerplant Maintenance Technician, certificate (under Aviation Technology) Certified under FAA Part 147

Practical Nursing, certificate, Accredited by the National League for Nursing Accrediting Commission (NLNAC) and approved by the New Mexico Board of Nursing

Pre-Management, AA degree, Accredited by the Association of Collegiate Business Schools and Programs (ACBSP)

Radiologic Technology, AS degree, Recognized by the American Registry of Radiological Technologist (ARRT) through the NCACS-HLC accreditation of CNM

Respiratory Therapy, AS degree, Accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and the Committee on Accreditation for Respiratory Care (CoARC)

Surgical Technology, certificate, Accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP)

Truck Driving, certificate, Accredited by the Professional Truck Driver Institute (PTDI)

Veterinary Technology, AAS degree, Accredited by the American Veterinary Medical Association (AVMA)

PROGRAMS OF STUDY

TRANSFER OPTIONS

In addition to our AA and AAS programs the following are samples of some of the transfer options that CNM has available. Please visit **cnm.edu/transferout** for the latest information on transfer from CNM.

CRIMINOLOGY TRANSFER OPTION

- **Associate of Arts Degree in General Studies**
- **Major course options are based on UNM 2008-2009 Catalog**

INTRODUCTION

Students majoring in Criminology examine the scientific study of crime, criminals, criminal behavior and corrections. This program of study provides students with a liberal education while emphasizing the social sciences related to Criminology. Courses in this transfer option will fulfill the requirements of the General Studies Associate of Arts degree at CNM and prepare the student for transfer to a four year baccalaureate program Criminology at the University of New Mexico. Students planning to transfer to other university baccalaureate programs are advised to refer to the catalog of their intended transfer institution to determine specific course and breadth requirements.

TRANSFER OPTION COURSE PREREQUISITES

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG0950 Essay Writing	85
MATH 1210 Methods of Problem Solving (for Math 1320) or	
Elementary Algebra Score	72
Or	
MATH1310 Intermediate Algebra (for Math 1315) or College Math Score	60
RDG0950 Reading and Critical Thinking	80

RECOMMENDED COURSE SEQUENCE FOR FULL – TIME STUDENTS

COURSE	CREDIT HOURS
TERM 1	
ENG 1101 College Writing	3
MATH 1315 College Algebra or higher (excluding Math 2210)	3-4
SOC 1101 Introduction to Sociology	3
HUMANITIES APPROVED ELECTIVE (SEE LIST**)	3
FINE ARTS APPROVED ELECTIVE (SEE LIST**)	3
Total	**15-16**
TERM 2	
ENG 1102 Analytical and Argumentative Writing	3
SOC 2205 or 2215	3
SPAN 1101 Beginning Spanish or higher– Language Elective	3-6
HUMANITIES APPROVED ELECTIVE (SEE LIST**)	3
CHEM 1710/1792 General Chemistry I (recommended)	
Or	
BIOLOGY/PHYSICAL SCIENCE WITH LAB APPROVED ELECTIVE (SEE LIST**)	4-5
Total	**16-20†**
TERM 3	
COMM 1130 or COMM 2221 (recommended)	3
SOC 2211 or 2213	3
SPAN 1102 (recommended) or higher or	
FINE ARTS ELECTIVE‡	3-6
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE‡	3
PHYS 1510/1592 (recommended)	
Or	
BIOLOGY/PHYSICAL SCIENCE WITH LAB APPROVED ELECTIVE (SEE LIST**)	4-5
Total	**16-20†**
TERM 4	
PSY 1105 (recommended) or SOCIAL/BEHAVIORAL SCIENCE	
APPROVED ELECTIVE (SEE LIST**)	3
SOC 2280	3
HUMANITIES ELECTIVE‡	3
BIOLOGY/PHYSICAL SCIENCE ELECTIVE‡	3
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE‡	3
Total	**15**

TOTAL CREDIT HOURS 62-71

The UNM Department of Sociology will accept 6 credits of CNM's Criminal Justice program that will transfer as electives to be applied to a Criminology Major (see UNM transfer guide for specific courses). They DO NOT count towards a General Studies Degree.

† Please refer to CNM Course Load Policy before attempting to register for more than 18 credit hours.
** (SEE LIST) – refer to page 57 for list of approved electives.
‡ Topics courses numbered xx96 do not transfer

Transfer School's Link: unm.edu/%7Esocdept/

DISCLAIMER

This information is intended to serve as a general guide for students intending to pursue a major in Sociology with a concentration in Criminology. Specific requirements for transfer will vary from school to school. It is the student's responsibility to contact a specific four year transfer school to confirm specific admission requirements.

See page 57 for information on course categories.

BIOLOGY TRANSFER OPTION

■ **Associate of Arts Degree in General Studies**

Major course options are based on UNM 2008-2009 Catalog

INTRODUCTION

Students majoring in Biology examine the structure and function of the living world. This program of study provides students with a liberal education while emphasizing the life/physical sciences. Courses in this transfer option will fulfill the requirements of the General Studies Associate of Arts degree at CNM and prepare the student for transfer to a four year baccalaureate program in Biology at the University of New Mexico. Students planning to transfer to other university baccalaureate programs are advised to refer to the catalog of their intended transfer institution to determine specific course and breadth requirements.

TRANSFER OPTION COURSE PREREQUISITES

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG0950 Essay Writing	85
MATH 1315 College Algebra (for Math 1460) or College Level Math score of	86
or Math 1410 Trigonometry and Math 1415 Advanced Algebra (for Math 1710)	
Or	
College Level Math score of	100
RDG0950 Reading and Critical Thinking	80

RECOMMENDED COURSE SEQUENCE FOR FULL – TIME STUDENTS

COURSE	CREDIT HOURS
TERM 1	
ENG1101 College Writing	3
CHEM 1710 General Chemistry I	3
CHEM 1792 General Chemistry I Lab	1
MATH 1460 Elements of Calculus I (or Math 1710)	3-4
HUMANITIES APPROVED ELECTIVE (SEE LIST**)	3
FINE ARTS APPROVED ELECTIVE (SEE LIST**)	3
Total	**16-17**
TERM 2	
ENG1102 Analytical and Argumentative Writing	3
BIO 1510/1592 Molecular and Cell Biology	4
CHEM 1810 General Chemistry II	3
CHEM 1892 General Chemistry II Lab	1
Math 1465 Elements of Calculus II (or Math 1715)	3-4
SOCIAL/BEHAVIORAL SCIENCE APPROVED ELECTIVE (SEE LIST**)	3
Total	**17-18**
TERM 3	
COMM1130	3
BIO 1610/1692 Genetics	4
PHYS 1510 Physics I (or PHYS 1710)	4
PHYS 1592 Physics I lab (or PHYS 1792)	1
HUMANITIES APPROVED ELECTIVE (SEE LIST**)	3
SOCIAL/BEHAVIORAL APPROVED ELECTIVE (SEE LIST**)	3
Total	**18**
TERM 4	
BIO 2410/2492 Ecology and Evolution	4
BIO 2510/2592 Plant and Animal Form and Function	4
CHEM 2710 Organic Chemistry I	3
CHEM 2792 Organic Chemistry I Lab	1
FOREIGN LANGUAGE ELECTIVE ‡	3-6
Total	**15-18**

TOTAL CREDIT HOURS 66-71

** (SEE LIST) – refer to page 57 for list of approved electives.
‡ Topics courses numbered xx96 do not transfer.

Transfer School's Link: biology.unm.edu/unmbio/index.html

DISCLAIMER

This information is intended to serve as a general guide for students intending to pursue a major in the Biological Sciences. Specific requirements for transfer will vary from school to school. It is the student's responsibility to contact a specific four year transfer school to confirm specific admission requirements.

See page 57 for information on course categories.

PSYCHOLOGY TRANSFER OPTION

■ **Associate of Arts Degree in General Studies**

Major course options are based on UNM 2008-2009 Catalog

INTRODUCTION

Students majoring in psychology examine the scientific study of the mind. This program of study provides students with a liberal education while emphasizing the social sciences related to psychology. Courses in this transfer option will fulfill the requirements of the General Studies Associate of Arts degree at CNM and prepare the student for transfer to a four year baccalaureate program in Psychology at the University of New Mexico. Students planning to transfer to other university baccalaureate programs are advised to refer to the catalog of their intended transfer institution to determine specific course and breadth requirements.

TRANSFER OPTION COURSE PREREQUISITES

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG0950 Essay Writing	85
MATH 1210 Methods of Problem Solving (for Math 1320) or Elementary Algebra Score	72
Or MATH1310 Intermediate Algebra (for Math 1315) or College Math Score	60
RDG0950 Reading and Critical Thinking	80

RECOMMENDED COURSE SEQUENCE FOR FULL – TIME STUDENTS

COURSE	CREDIT HOURS
TERM 1	
ENG1101 College Writing	3
MATH 1315 College Algebra or higher (excluding Math 2210)	3-4
PSY1105 Introduction to Psychology	3
HUMANITIES APPROVED ELECTIVE (SEE LIST**)	3
FINE ARTS APPROVED ELECTIVE (SEE LIST**)	3
Total	**15-16**
TERM 2	
ENG1102 Analytical and Argumentative Writing	3
PSY2200 Statistical Principles	3
FOREIGN LANGUAGE ELECTIVE‡	3-6
HUMANITIES APPROVED ELECTIVE (see list**)	3
BIOLOGY/PHYSICAL SCIENCE WITH LAB APPROVED ELECTIVE (see list**)	4-5
Total	**16-20†**
TERM 3	
COMM1130 or COMM2221 (recommended)	3
PSY ELECTIVE (options: PSY2220, 2240, 2260, 2265, 2271)	3
PSY ELECTIVE (options: PSY2220, 2240, 2260, 2265, 2271)	3
SOCIAL/BEHAVIORAL SCIENCE APPROVED ELECTIVE (SEE LIST**)	3
BIOLOGY/PHYSICAL SCIENCE WITH LAB APPROVED ELECTIVE (SEE LIST**)	4-5
Total	**16-17**
TERM 4	
FINE ARTS ELECTIVE‡	3
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE‡	3
PSY ELECTIVE (options: PSY2220, 2240, 2260, 2265, 2271)	3
PSY ELECTIVE (options: PSY2220, 2240, 2260, 2265, 2271)	3
HUMANITIES ELECTIVE‡	3
Total	**15**

TOTAL CREDIT HOURS 62-68

† Please refer to CNM Course Load Policy before attempting to register for more than 18 credit hours.
** (SEE LIST) – refer to p 57 for list of approved electives.
‡ Topics courses numbered xx96 do not transfer.

Transfer School's Link: unm.edu/%7Epsych/

DISCLAIMER

This information is intended to serve as a general guide for students intending to pursue a major in Psychology. Specific requirements for transfer will vary from school to school. It is the student's responsibility to contact a specific four year transfer school to confirm specific admission requirements.

See page 57 for information on course categories.

PROGRAMS OF STUDY

ALPHABETICAL

ACCOUNTING

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

- **Associate of Applied Science Degree in Accounting**
- **Certificate of Completion in Accounting**
- **Certificate of Completion in Bookkeeping**
- **Certificate of Completion in Certified Public Accountant (CPA) Preparation**
- **Certificate of Completion in IRS Enrolled Agent Preparation**
- **Certificate of Completion in Payroll Clerk**
- **Certificate of Completion in Tax Preparer for Individuals**

PROGRAM DESCRIPTION

The Accounting program provides graduates with a strong foundation in the theory and procedures of accounting for business transactions. Computer technology and software applications that facilitate production of accounting information are an integral part of the program. Education in accounting often provides a competitive advantage to those seeking advancement in all aspects of business.

Accounting coursework covers financial, managerial and tax accounting practices and procedures. Students develop financial statements for a variety of users and study the fundamentals of business law and management. Students also study the verbal, written and teamwork skills needed for a business career.

The Bookkeeping certificate provides basic accounting skills for entry-level employment. Students also receive an introduction to business operations and to the written and verbal communication skills needed for a business career. The courses in this program may integrate into other Business & Information Technology programs. Students can take additional courses and receive a certificate or associate of applied science degree in Accounting.

Note: The associate of applied science degree transfers at least 30 technical credits and applicable arts and sciences credits to the University of New Mexico College of Education toward the Technology and Training program. Contact (505) 224-3811 for more information.

CAREER AND EDUCATIONAL OPPORTUNITIES

Most businesses, governmental and non-profit organizations employ accountants and/or bookkeepers. *The U.S. Department of Labor Statistics Job Outlook Handbook* predicts that both full- and part-time employment for persons with accounting education are expected to grow faster than average.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0750 Practical Writing	69
ENG 0950 Essay Writing (for ENG 1101)	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra Score	72
RDG 0750 Reading Improvement	69
RDG 0950 Reading and Critical Thinking (for ENG 1101)	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ACCT 1109 Business Math	3
ACCT 1111 Accounting IA	3
BA 1131 Business Interpersonal Skills	3
IT 1010 Introduction to Computers	3
TERM 2	
ACCT 1112 Accounting IB	3
ACCT 1120 Payroll Accounting	3
BA 1101 Introduction to Business	3
Or	
BA 1133 Principles of Management	
BA 1121 Business English	3
Or	
ENG 1101 College Writing (degree students must choose ENG 1101)	
MATH 1210 Methods of Problem Solving or higher (required for degree only) (except MATH 2110 and 2096) (MATH 1315 is recommended for transfer only)	3-4

**** See page 57 for information on course categories.***

TERM 3

ACCT 1140 Accounting Applications 3
ACCT 1210 Accounting II 3
ACCT 2410 Electronic Spreadsheets 3
ACCT 2098 Internship 3-4
Or
ACCT 2095 Cooperative Education
Or
ACCT 1411 + 1412 + 1413 QuickBooks Series (Beginning, Intermediate, Advanced)
Or
ACCT 1410 QuickBooks Complete

Certificate in Bookkeeping

(does not include MATH 1210) **36-37**

Approved ARTS AND SCIENCES ELECTIVE (SEE LIST) 3

TERM 4

ACCT 2101 Intermediate Accounting IA 3
ACCT 2340 Tax Accounting I 3
Or
ACCT 1301 Volunteer Tax Preparation 2
And
ACCT 1398 Volunteer Tax Internship 1
ACCT 2420 Computerized Accounting 3
ENG 1101 College Writing (if not already taken) (for degree only) 3
BA 2240 Business Law 3

Certificate in Accounting

(does not include MATH 1210) **51-55**

TERM 5

Required for degree only

ACCT 2102 Intermediate Accounting IB 3
Accounting Elective (SEE LIST) 3
Accounting Elective (SEE LIST) 3
Approved ARTS AND SCIENCES ELECTIVE (SEE LIST) 3
BA 2999 Capstone Course 1

Associate of Applied Science in Accounting 67-72

APPROVED ACCOUNTING ELECTIVES

ACCT courses not used elsewhere 3-4
FIN 1100 Principles of Banking 3
FIN 1310 Fundamentals of Risk Management and Insurance 3
FIN 2210 Finance 3
CIS 1160 Introduction to Information Management 3
CIS 1180 Access Fundamentals 1
CIS 1181 Intermediate Access 1
CIS 1182 Advanced Access 1
CIS 1183 Access Complete 3
BA 1115 Web Business 3
CSE 1101 College Success or higher 1-3

APPROVED ARTS AND SCIENCES ELECTIVES

ECON 2200 Macroeconomics 3
ECON 2201 Microeconomics 3
ENG 1102 Analytic and Argumentative Writing 3
ENG 2219 Technical Writing 3
Or
ENG 2220 Expository Writing
*Communications (COMM 2221 or 1130 recommended) 3
*BIOLOGICAL/PHYSICAL SCIENCE ..... 7 hrs max
*HUMANITIES ..... 3 hrs max
*SOCIAL/BEHAVIORAL SCIENCE (in addition to ECON 2200 and 2201) ..... 3 hrs max
*FOREIGN LANGUAGE ..... 3 hrs max
*FINE ARTS ..... 3 hrs max
MATH 1210 Methods of Problem Solving or higher if not previously used (except MATH 2110 and 2096) ..... 3 or 4

CERTIFIED PUBLIC ACCOUNTANT (CPA) PREPARATION CERTIFICATE

The CPA Preparation Certificate of Completion provides credit hours in accounting plus 3 credit hours in Business Law which are needed as a portion of the qualifications to take the CPA exam. Other requirements, which are set by the State Board of Accountancy, include a bachelor's degree or higher from an accredited college or university with at least 150 semester hours, which includes the 30 hours of accounting/law. Satisfactory completion of the coursework does not guarantee passing that exam. Additional information about licensing requirements for the CPA can be obtained from the New Mexico State Board of Accountancy at (505) 841-9108. All of the courses included may also be applied toward an associate of applied science degree in Accounting or an Accounting or Bookkeeping certificate of completion.

COURSE PREREQUISITE(S)

Bachelor's Degree is a prerequisite for this certificate of completion.

Students should see an academic advisor to customize their educational plans. Students must meet prerequisite by placement scores or specific course work or obtain approval from the program chair. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

TERM 1

ACCT 1111 Accounting IA 3
And
ACCT 1112 Accounting IB 3
Or
ACCT 1110 Accounting I
BA 2240 Business Law 3

TERM 2

ACCT 1210 Accounting II 3
ACCT 2101 Intermediate Accounting IA 3
ACCT 2341 Tax Accounting II 3
CPA Prep Elective 3

TERM 3

ACCT 2102 Intermediate Accounting IB 3
ACCT 2103 Intermediate Accounting II 3
ACCT 2520 Auditing 3
CPA Prep Elective 3

Certificate in Certified Public Accountant Preparation 33

APPROVED CPA PREP ELECTIVES

ACCT 1096 and/or 2096 Topics 1-6
ACCT 2210 Cost Accounting 3
ACCT 2220 Managerial Accounting 3
ACCT 2340 Tax Accounting I 3
ACCT 2410 Electronic Spreadsheets 3
ACCT 2420 Computerized Accounting 3
ACCT 2510 Governmental Accounting 3

**** See page 57 for information on course categories.***

INTERNAL REVENUE SERVICE (IRS) ENROLLED AGENT PREPARATION CERTIFICATE

The IRS Enrolled Agent Preparation Certificate of Completion provides confirmation that the student has satisfactorily completed the designated courses. These courses cover the information included in the exam offered by the IRS for individuals who wish to be certified to represent clients before the IRS. Satisfactory completion of the coursework does not guarantee passing that exam. All of the courses included may also be applied to an associate of applied science degree in Accounting or an Accounting or Bookkeeping certificate of completion.

COURSE PREREQUISITE(S)

ENG 0750 Practical Writing (recommended) 69
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of (recommended) 72
RDG 0750 Reading Improvement (recommended) 69

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

TERM 1
ACCT 1109 Business Math 3
ACCT 1111 Accounting IA 3
ACCT 1301 Volunteer Tax Preparation 2

TERM 2
ACCT 1112 Accounting IB 3
ACCT 1398 Volunteer Tax Internship 1
ACCT 2340 Tax Accounting I 3

TERM 3
ACCT 2341 Tax Accounting II 3
ACCT 2350 Enrolled Agent Review I 3

TERM 4
ACCT 2351 Enrolled Agent Review II 3

Certificate in IRS Enrolled Agent Preparation 24

PAYROLL CLERK CERTIFICATE

The Payroll Clerk Certificate of Completion is a series of courses that provide entry-level skills in payroll accounting. All of the Payroll Clerk courses may also be applied toward an associate of applied science degree in Accounting or an Accounting or Bookkeeping certificate of completion. Students enrolled in these courses may not be eligible to receive financial aid or Veterans Administration benefits.

COURSE PREREQUISITE(S)

ENG 0750 Practical Writing 69
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of 72
RDG 0750 Reading Improvement 69

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

TERM 1
ACCT 1109 Business Math 3
ACCT 1111 Accounting IA 3
BA 1131 Business Interpersonal Skills 3
IT 1010 Introduction to Computers 3

TERM 2
ACCT 1112 Accounting IB 3
ACCT 1120 Payroll Accounting 3

TERM 3
ACCT 1140 Accounting Applications 3

Certificate in Payroll Clerk 21

TAX PREPARER FOR INDIVIDUALS CERTIFICATE

The Tax Preparer for Individuals Certificate of Completion provides confirmation that the student has satisfactorily completed courses that provide skills needed to prepare individual income tax forms for IRS filing by taxpayers. All of the courses may also be applied toward an associate of applied science degree in Accounting or an Accounting or Bookkeeping certificate of completion.

COURSE PREREQUISITE(S)

ENG 0750 Practical Writing 69
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of 72
RDG 0750 Reading Improvement 69

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

TERM 1
ACCT 1109 Business Math 3
ACCT 1111 Accounting IA 3
BA 1131 Business Interpersonal Skills 3
IT 1010 Introduction to Computers 3

TERM 2
ACCT 1112 Accounting IB 3
ACCT 1301 Volunteer Tax Preparation 2
ACCT 1398 Volunteer Tax Internship 1
ACCT 2340 Tax Accounting I 3

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See page 57 for information on course categories.

AEROSPACE TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3340 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

- **Associate of Applied Science Degree in Aerospace Technology**
- **Certificate of Completion in Professional Pilot and Flight Instruction**

PROGRAM DESCRIPTION

The certificate in Professional Pilot and Flight Instruction offers students advanced single engine ratings and entry-level access as flight instructors. The associate degree in Aerospace Technology prepares students with multi-engine ratings. Students may choose to take their flight lessons from independent flight instructors or at any of the many high quality flight schools in the area, most of which are within thirty minutes driving time of the campus

SPECIAL REQUIREMENTS

Individuals who wish to become pilots must meet the medical requirements for a second-class FAA medical certificate.

Note: please check course descriptions beginning on page 197 (subject code: AVIA) for course fees in this program.

CAREER AND EDUCATIONAL OPPORTUNITIES

With the increased numbers of moderately priced business aircraft entering the market and the increasing retirements of current commercial pilots, the air transport industry will have an increased demand for pilots.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ENG 1101 College Writing	3
MATH 1210 or higher (except MATH 2110 or MATH 2096)	4
AVIA 1110 Introduction to Modern Commercial Air Operations	2
AVIA 1400 Private Pilot	3
AVIA 1492 Private Pilot Lab	3
TERM 2	
PHYS 1010 Introduction to Physics	3
AVIA 1500 Instrument Rating and Commercial Pilot I	3
AVIA 1592 Instrument Rating and Commercial Pilot I Lab	3
AVIA 1140 Meteorology	3
AVIA 1145 Aircraft, Engines and Maintenance	3
TERM 3	
AVIA 1150 Aviation Electricity	2
AVIA 1600 Commercial Pilot II	3
AVIA 1692 Commercial Pilot II Lab	3
AVIA 2110 Aerodynamics for Pilots	3
AVIA 2115 Aerobatics, Spin and Upset Flight	1
TERM 4	
AVIA 2100CFI and CFI II Ratings	3
AVIA 2192 CFI and CFI II Ratings Lab	3
AVIA 2130 Modern Avionics	3
AVIA 2135 Introduction To Air Traffic Control	3
COMM 2221 Interpersonal Communication Studies	3
TERM 5	
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCES ELECTIVE	3
AVIA Elective	3
AVIA 2200 Multi-Engine Commercial/Certified Flight Instructor	3
AVIA 2292 Multi-Engine Commercial/Certified Flight Instructor Lab	3
AVIA 2255 Aviation Physiology	3
AVIA 2260 Crew Resource Management	3

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APPROVED ELECTIVES

AVIA 2096 Special Topics	3
AVIA 2250 Global Air Navigation	3
AVIA 2265 Management of Air Operations	3
AVIA 2270 Turbine Aircraft Systems	3
AVIA 2392 Advanced Flight Labs (Cessna 172)	1
AVIA 2492 Advanced Flight Labs (BE-95)	1
AVIA 2285 Advanced Flight Labs (Frasca SE FTD)	1
AVIA 2290 Advanced Flight Labs (Frasca ME FTD)	1

See page 57 for information on course categories.

PROFESSIONAL PILOT AND FLIGHT INSTRUCTION CERTIFICATE

TERM 1

ENG 1101 College Writing 3
MATH 1210 or higher (except MATH 2110 or MATH 2096) 4
AVIA 1110 Introduction to Modern Commercial Air Operations 2
AVIA 1400 Private Pilot 3
AVIA 1492 Private Pilot Lab 3

TERM 2

PHYS 1010 Introduction to Physics 3
AVIA 1500 Instrument Rating and Commercial Pilot I 3
AVIA 1592 Instrument Rating and Commercial Pilot I Lab 3
AVIA 1140 Meteorology 3
AVIA 1145 Aircraft, Engines and Maintenance 3

TERM 3

AVIA 1600 Commercial Pilot II 3
AVIA 1692 Commercial Pilot II Lab 3

TERM 4

AVIA 2100CFI and CFI II RATINGS 3
AVIA 2192 CFI and CFI II RATINGS LAB 3

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** See page 57 for information on course categories.*

AIR CONDITIONING, HEATING AND REFRIGERATION

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3340 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

■ Certificate of Completion in Air Conditioning, Heating and Refrigeration (ACHR)

PROGRAM DESCRIPTION

The Air Conditioning, Heating and Refrigeration (ACHR) Certificate program provides students the opportunity to gain knowledge and technical skills for entry into the Heating Air Conditioning Ventilation and Refrigeration (HVAC) installation, maintenance and service industry. The program prepares students in proper safety practices, installation of mechanical equipment, proper piping practices, electrical troubleshooting, service and maintenance of various types of refrigeration, heating, air conditioning and heat pump equipment and accessories. The program offers students an in-depth background in HVAC fundamentals through hands-on labs.

Training is provided in service and maintenance on heating equipment (natural gas and electric), air conditioning and heat pumps, (packaged and split systems), boilers and boiler controls, chillers and building automation controls. Students gain an understanding of wiring diagrams to trouble shoot equipment, creating a sequence of operations from wiring diagrams, how to create wiring diagrams from equipment, system design including calculating building loads, duct design and code enforcement are included in the curriculum.

SPECIAL REQUIREMENTS

Students are required to purchase textbooks, hand tools, personal protective equipment and pay for any certification exam fees.

Graduates will be required to earn their EPA Refrigeration Handling Certification and must complete the National Industry Competency Exams (ICE) in commercial refrigeration, residential AC and Heating and light commercial AC and Heating. Exam fees are approximately $50 each.

Fees: Course fees are published in the *Schedule of Classes*. These fees cover the cost of tools required for lab activities.

CAREER AND EDUCATIONAL OPPORTUNITIES

Graduates earning their certificate in the ACHR program are qualified to take the New Mexico Journeyman's Refrigeration exam, High Pressure Boiler Operator's exam and Low Pressure Boiler Operators exam. An Associate Degree in Mechanical Technology with a concentration in ACHR is available to students earning a certificate in ACHR from CNM.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
RDG 0750 Reading Improvement or Reading score of	69
MATH 0550 Basic Mathematics or Arithmetic score of	31

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ACHR 1105 Refrigeration Fundamentals	2
ACHR 1110 Basic Electricity	2
ACHR 1115 Refrigerant Management	2
ACHR 1120 Motors and Controls	2
ACHR 1125 Refrigeration Applications	2
ACHR 1130 Code and Safety Requirements I	1
ACHR 1135 Commercial Refrigeration	2
TERM 2	
ACHR 1205 Air Conditioning	2
ACHR 1210 Air Conditioning Control	2
ACHR 1215 System Design	3
ACHR 1225 Heating Systems	2
ACHR 1230 Heating Control Systems	2
ACHR 1220 Installation and Retrofit of Heat/Cooling System	2
TERM 3	
ACHR 1306 Advanced Hydronics	2
ACHR 1315 Hot Water and Steam Generation Systems	2
ACHR 1320 Control I	2
ACHR 1325 Chilled Water Systems	2
ACHR 1335 Controls II	2
ACHR 1340 Code and Safety Requirements II	1
ACHR 1345 Controls III	2

Certificate in Air Conditioning, Heating and Refrigeration 39

**** See page 57 for information on course categories.***

ALTERNATIVE TEACHER LICENSURE

School of Communication, Humanities & Social Sciences

CONTACT INFORMATION

Program Director: (505) 224-3588, Program Outreach Specialist: (505) 224-3607

cnm.edu/teachered

■ **Certificate of Completion in Alternative Teacher Licensure (Concentrations in Early Childhood Multicultural Education, Elementary Education, Secondary Education, Special Education)**

PROGRAM DESCRIPTION

CNM offers a state-approved Alternative Teacher Licensure Certificate Program with concentrations in: Early Childhood Multicultural Education, Elementary Education, Secondary Education and Special Education

CAREER AND ADVANCEMENT OPPORTUNITIES

Upon successful completion of this certificate program and required state exams, candidates are eligible to apply for a New Mexico Level I provisional teaching license.

Teaching remains a high demand field in New Mexico, especially in the areas of Bilingual Elementary, Secondary (Math or Science), and Special Education. The starting salary for teachers in New Mexico public schools is $30,000. Within 7 years of teaching, teachers can potentially earn a salary of $50,000.

SPECIAL REQUIREMENTS

To qualify to pursue alternative licensure programs, an individual must have:

- A bachelor's degree including 30 semester hours of credit in a particular field that applies to the licensure area sought; or
- A master's degree including 12 semester hours of graduate credit in a particular field that applies to the licensure area sought; or
- A doctorate degree in a particular field that applies to the licensure area sought.

Initial admission to CNM's Alternative Teacher Licensure Certificate Program requires:

- Completion of the CNM admission application
- Completion of the CNM Alternative Teacher Licensure Certificate Program application packet (at cnm.edu/teachered)
- Interested applicants should attend an information session prior to submission of ATL application packet

Full acceptance (required to register for second term of coursework) requires:

- Passing scores on the Basic Skills portion of the New Mexico Teacher Assessment (NMTA). *Note: To register for this exam visit* ***nmta.nesinc.com***
- Successful completion of first term coursework
- Complete student file on record with the education department

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

Applicants to this program must meet the provisions of the New Mexico Public Education Department. Prospective students must possess (1) a bachelor's degree that includes a minimum of 30 semester hours in a particular field, or (2) a master's degree that includes a minimum of 12 graduate semester hours in a particular field, or (3) a doctoral degree in a particular field that appertains and corresponds to the subject area and level of instruction; meet all other prerequisites as specified in course sequence; and undergo screening process and be approved for enrollment.

EARLY CHILDHOOD MULTICULTURAL EDUCATION CONCENTRATION

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
ECME 2250 Foundations of Early Childhood Education	3
ECME 2252 Teaching Young Children	3
ECME 2254 Developmentally Appropriate Early Childhood Multicultural Curriculum	3
ECME 2260 Observation and Assessment of Young Children	3
ECME 2262 Emergent Literacy: Theories and Principles	3
ECME 2264 Emergent Literacy: Methods and Materials	3
ECME 2390 Early Childhood Classroom Field Experience	3

Certificate in Early Childhood Multicultural Education 21

ELEMENTARY CONCENTRATION

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
EDUC 2250 Foundations of Education	3
EDUC 2252 Teaching and Learning Theory	3
EDUC 2260 Fundamentals of Reading Instruction	3
EDUC 2262 Methods and Materials for Reading Instruction	3
EDUC 2284 Effective Teaching Methods and Strategies	3
EDUC 2285 Curriculum Development, Assessment and Evaluation	3
EDUC 2190 Supervised Field Experience	3

Certificate in Elementary Education 21

***See page 57 for information on course categories.**

SECONDARY EDUCATION CONCENTRATION

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
EDUC 2250 Foundations of Education	3
EDUC 2252 Teaching and Learning Theory	3
EDUC 2264 Reading and Writing across the Curriculum in Secondary Education	3
EDUC 2284 Effective Teaching Methods and Strategies	3
EDUC 2285 Curriculum Development, Assessment and Evaluation	3
EDUC 2190 Supervised Field Experience	3

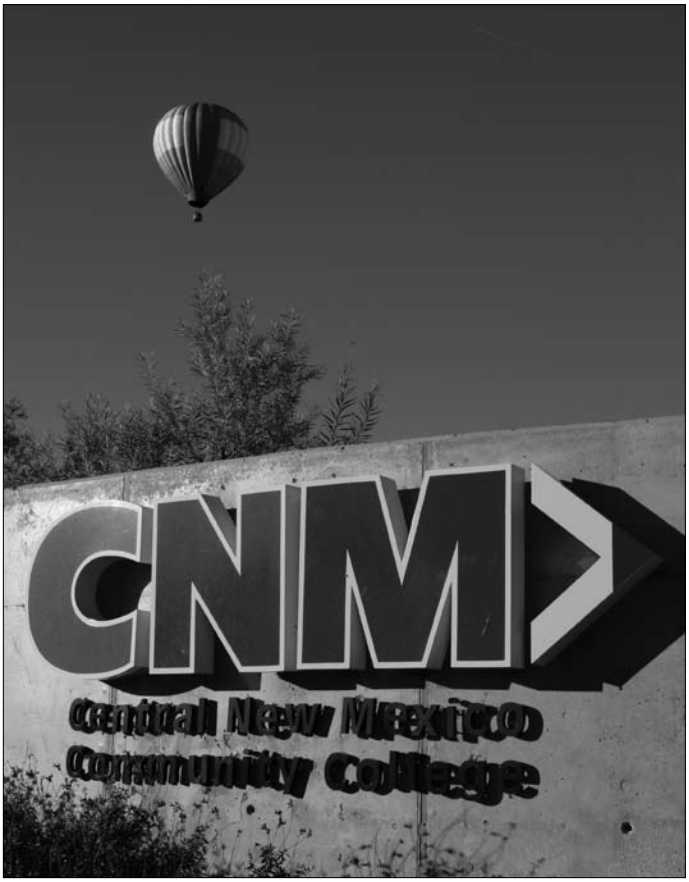
Certificate in Secondary Education..... 18

SPECIAL EDUCATION CONCENTRATION

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
EDUC 2260 Fundamentals of Reading Instruction	3
SPED 2250 Exceptionalities and Placement	3
SPED 2256 Evaluation/Individual Ed Plan and Documentation in Special Education	3
SPED 2258 Classroom and Behavior Management for Students with Special Needs	3
SPED 2260 Methods and Materials for Special Education	3
SPED 2272 Reading for Special Learners	3
SPED 2390 Special Education Supervised Field Experience	3

Certificate in Special Education..... 21



** See page 57 for information on course categories.*

APPRENTICESHIPS

School of Applied Technologies

CONTRACT INFORMATION

Information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

COMMERCIAL CARPENTRY APPRENTICESHIP

The Commercial Carpentry Apprenticeship (course subject code: CCAP), for persons currently employed in the industry, is offered in conjunction with the Associated Builders and Contractors (ABC), Associated General Contractors (AGC) and the Carpenters Educational Program. The program provides related classroom instruction. Students must purchase textbooks and instructional materials through ABC, AGC or Carpenters Educational Program Local 1319 offices.

ELECTRICAL TRADES APPRENTICESHIP

The Electrical Trades Apprenticeship (course subject code: ETAP), for persons currently employed full-time in the electrical industry, is offered in conjunction with the Independent Electrical Contractors (IEC) and Associated Builders and Contractors (ABC). The program provides related classroom instruction. Students must purchase books and instructional materials through IEC or ABC offices.

GENERAL TRADES APPRENTICESHIP

The General Trades Apprenticeship (course subject code: GTAP), for persons currently employed in the general trades industry, is offered in conjunction with the local industry. The program provides related classroom instruction. Students must purchase textbooks and instructional materials through the sponsoring agency.

INDUSTRIAL PLANT MAINTENANCE APPRENTICESHIP

The Industrial Plant Maintenance Apprenticeship (course subject code: IMAP), for persons currently employed full time in the industrial plant maintenance industry, will be offered in conjunction with local industries.

The program provides related classroom instruction. Students must purchase books and instructional materials through the sponsoring industries.

IRON WORKER APPRENTICESHIP

The Iron Worker Apprenticeship (course subject code: IWAP), for persons currently employed in the industry, is offered in conjunction with Iron Workers Local 495.

The program provides related classroom instruction. Students must purchase textbooks and instructional materials through the Iron Workers Local 495 office.

PLUMBING APPRENTICESHIP

The Plumbing Apprenticeship (course subject code: PLAP), for persons currently employed full time in the mechanical trades (plumbing) industry, is offered in conjunction with Associated Builders and Contractors (ABC) and Plumbing and Pipefitters Local 412.

Students must purchase textbooks and instructional materials through ABC or Plumbers and Pipefitters Local 412 offices.

SHEET METAL APPRENTICESHIP

The Sheet Metal Apprenticeship (course subject code: SMAP), for persons currently employed full time in the sheet metal industry, is offered in conjunction with Associated Builders and Contractors (ABC) and Sheet Metal Workers Local 49.

The program provides related classroom instruction. Students must purchase textbooks and instructional materials through ABC or Sheet Metal Workers Local 49 offices.

See page 57 for information on course categories.

ARCHITECTURAL/ ENGINEERING DRAFTING TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/programs/ardr/

- **Associate of Applied Science Degree in Architectural/Engineering Drafting Technology**
- **Certificate of Completion in Architectural/Engineering Drafting Technology**
- **Certificate of Achievement in Computer-Assisted Drafting**

PROGRAM DESCRIPTION

The program integrates mathematics and blueprint reading into the technical courses at all levels. Computer applications are emphasized throughout the program. The curriculum includes the principles of architectural and engineering graphics and the theory and practice of construction technology. To prepare students for work in the construction industry, the development and use of communication, teamwork and problem-solving skills are incorporated throughout the program.

The CAD Certificate of Achievement is designed to prepare students to succeed as CAD technicians. Development of two and three dimensional CAD skills is the primary focus of the program.

SPECIAL REQUIREMENTS

Students must purchase their own drafting tools, construction hard hat, disposable camera, and safety glasses.

CAREER AND EDUCATIONAL OPPORTUNITIES

Graduates are prepared for entry-level jobs as architectural or engineering drafting technicians in residential and commercial construction and in sales and drafting positions with contractors, fabricators and suppliers.

The CAD Certificate of Achievement prepares students for entry-level positions as CAD drafter/technician and offers career opportunities in the fields of architecture, engineering, and construction. The Certificate of Achievement is also conducive to those seeking professional and technical upgrading in the design profession.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

SPECIAL NOTES

Additional courses are available to enhance this program of study. Please contact the curriculum chair or program director for information.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80
IT 1010 Introduction to Computers	

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ARDR 1010 CAD Analysis I	2
ARDR 1101 Building Material and Methods I	3
ARDR 1105 Architectural Drafting I	4
ARDR 1492 Architectural Design	2
CAD 1001 Basics of CAD	1
COMM 2232 Business and Professional Communication Studies	3
Or	
ENG 1101 College Writing or higher	
TERM 2	
ARDR 1201 Building Materials and Methods II	3
ARDR 1205 Architectural CAD II	7
ARDR 1220 CAD Analysis II	3
ARTH 2260 Architectural History: Ancient through Modern	3
TERM 3	
ARDR 1306 Architectural CAD III	4
ARDR 1320 CAD Analysis III	3
ARDR 1110 Architectural Mathematics	3
Or	
Approved ARDR Elective	
ARDR 2192 Site Analysis	3
Or	
Approved ARDR Elective	
ARDR 1999 ARDR Seminar I (Certificate Level)	1
PHYS 1010 Introduction to Physics or higher	3
TERM 4	
ARDR 2110 Structural Systems Analysis	3
ARDR 2105 Structural Systems CAD	4
ARDR 2120 Structural Systems Software Applications	2
MATH 1210 or higher (except MATH 2110 and 2096)	3-4
TERM 5	
ARDR 2210 Mechanical/Electrical/Systems Analysis	3
ARDR 2205 Mechanical/Electrical/Plumbing Systems CAD Lab	4
ARDR 2220 Mechanical/Electrical/Plumbing Systems Software Applications	2
ARDR 2999 ARDR Seminar II (Degree Level)	1
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCES ELECTIVE	3

Associate of Applied Science in Architectural/Engineering Drafting Technology.....71-74

See page 57 for information on course categories.

ARCHITECTURAL/ENGINEERING DRAFTING TECHNOLOGY CERTIFICATE

TERM 1

ARDR 1010 CAD Analysis I 2
ARDR 1101 Building Material and Methods I 3
ARDR 1105 Architectural Drafting I 4
ARDR 1492 Architectural Design 2
CAD 1001 Basics of CAD 1

TERM 2

ARDR 1201 Building Materials and Methods II 3
ARDR 1205 Architectural CAD Drafting II 7
ARDR 1220 CAD Analysis II 3

TERM 3

ARDR 1306 Architectural CAD Lab III 4
ARDR 1320 CAD Analysis III 3
ARDR 1110 Architectural Mathematics
Or
Approved ARDR Elective
ARDR 2192 Site Analysis 2
Or
Approved ARDR Elective
ARDR 1999 ARDR Seminar I (Certificate Level) 1

Certificate in Architectural/Engineering Drafting Technology.....37-39

COMPUTER ASSISTED DRAFTING CERTIFICATE

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CAD 1001 Basics of CAD	1
ARDR 1010 CAD Analysis I	2
ARDR 1220 CAD Analysis II	3
ARDR 1320 CAD Analysis III	3
Approved ARDR Elective	2-3

Certificate in Computer Assisted Drafting.....11-12

APPROVED ARDR ELECTIVES

ARDR 1110 Architectural Mathematics 3
ARDR 1392 Advanced CAD 2
ARDR 2192 Site Analysis 2
ARDR 2295 Cooperative Education 3
ARDR 2296 Topics 1-7
ARDR 2297 Independent Study 1-7
ARDR 2298 Internship 3

See page 57 for information on course categories.

AUTOMOTIVE TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

- **Certificate of Completion in Automotive Service Fundamentals**
- **Certificate of Completion in Automotive Technology**

PROGRAM DESCRIPTION

Entering students will study, through lecture and hands-on training, the fundamentals of automotive service, which includes an introduction to automotive systems, and further study in the ASE automotive specialty areas of: brakes, steering and suspension and electrical systems. Automotive Technology students will continue their career preparation by studying the more advanced principles of automotive service and repair, which includes course work in the following ASE specialty areas: Engine Repair, Automatic Transmission, Manual Drive Train, Electrical/Electronic Systems, Heating and Air Conditioning and Engine Performance. Upon completion of the Automotive Service Fundamentals Certificate program, graduates will be eligible for entry level employment at facilities focused on under- car repair and service. Upon completion of the Automotive Technology Certificate program, graduates will be eligible for entry level employment at dealerships and independent repair facilities.

SPECIAL REQUIREMENTS

Students are required to purchase textbooks, tools and personal safety equipment. One must not be allergic to fuels, oils and chemicals used in industry. Most employers require a valid driver's license and a good driving record.

CAREER AND EDUCATIONAL OPPORTUNITIES

There is a local and national shortage of automotive technicians. Students who earn this certificate can find jobs in automotive dealerships and independent repair facilities that perform all phases of automotive service and repair. Students are encouraged to pursue the Associate of Applied Science degree in Transportation Technology.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
RDG 0750 Reading Improvement	69
MATH 0750 Basic College Mathematics or Arithmetic score of	57

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
AUTC 1110 Introduction to Automotive Systems	4
AUTC 1120 Brake Systems	4
AUTC 1130 Suspension and Alignment	4
AUTC 1140 Automotive Electrical	4

Certificate in Automotive Service Fundamentals . 16

TERM 2	
AUTC 1210 Manual Transmission	4
AUTC 1220 Engine Repair	4
AUTC 1230 Automatic Transmissions	4
AUTC 1240 Automotive Electronics	4
TERM 3	
AUTC 2120 Engine Performance I	4
AUTC 2130 Engine Performance II	4
AUTC 2110 Air Conditioning and Heating	4

Certificate in Automotive Technology 44

**** See page 57 for information on course categories.***

AVIATION TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

- **Associate of Applied Science Degree in Aviation Maintenance Technology**
- **Certificate of Completion in Airframe Maintenance Technician**
- **Certificate of Completion in Powerplant Maintenance Technician**

Note: For information on Pilot Training, see Aerospace Technology on page 72.

PROGRAM DESCRIPTION

The maintenance technician degree and certificates prepare students for certification as Federal Aviation Administration (FAA) certified Airframe and/or Powerplant (A&P) Technician. Upon completion of the program, graduates will be prepared and equipped to take the FAA written, oral and practical exam. These programs are FAA part 147 approved (FAA #Q8UT5734K).

Graduates who pass the FAA exams will be qualified for employment in entry level positions in the aviation maintenance and manufacturing fields, and other fields requiring highly trained technicians.

SPECIAL REQUIREMENTS

Students are required to purchase textbooks, hand tools, personal protective equipment and pay for any certification exam fees.

Note: FAA regulations prohibit anyone from taking the General, Airframe or Powerplant licensing examinations who has been convicted of a drug-related crime within one year prior to the testing date.

Fees: Course fees are published in the *Schedule of Classes*. These fees cover the cost of tools required for lab activities.

CAREER AND EDUCATIONAL OPPORTUNITIES

These programs are positioned to help provide a sustainable workforce for the emerging aviation manufacturing industry cluster in New Mexico. The aviation companies that have selected Albuquerque to establish manufacturing and assembly facilities will require Federal Aviation Administration (FAA) certified maintenance technicians as part of their assembly processes and after-sales servicing centers.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing or Sentence Skills score of	85
MATH 0940 Algebraic Problem Solving II or Elementary Algebra score of	81
RDG 0950 Reading and Critical Thinking or Reading score of	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
AVMT 1240 Aircraft Forms, Regulations, Publications and Mathematics	4
AVMT 1260 Basic Electricity I and Aircraft Weight and Balance	4
AVMT 1270 Basic Electricity II, Materials and Processes, etc.	4
ENG 1101 College Writing	3
TERM 2	
AVMT 1280 Aviation Physics, Aircraft Drawings, etc.	5
AVMT 2220 Aircraft Wood Structures, Covering, etc	5
AVMT 2225 Atmosphere Control, Fire Detection, Ice and Rain Sys.	5
COMM 1130 or higher	3
TERM 3	
AVMT 2230 Aircraft Sheet Metal	4
AVMT 2235 Aircraft Landing Gear, etc.	5
AVMT 2240 Aircraft Electrical Systems	3
MATH 1210 or higher	3-4.
TERM 4	
AVMT 2243 Aircraft Instruments, Position and Warning, etc.	5
AVMT 2245 Airframe Assembly, Rigging and Welding	5
AVMT 2292 Airframe Inspection, Test and Review	2
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCE ELECTIVE	3
TERM 5	
AVMT 2250 Reciprocating Engines	4
AVMT 2392 Reciprocating Engines Lab	4
AVMT 2260 Aircraft Turbine Engines I	6
TERM 6	
AVMT 2262 Turbine Engines II, etc.	4
AVMT 2265 Engine Fuel and Metering Systems	6
AVMT 2270 Engine Electrical Systems	4
TERM 7	
AVMT 2275 Engine Instruments, Cooling, etc.	5
AVMT 2280 Propeller Systems, Engine Inspections and Test and Review	5
PHYS 1010 Introduction to Physics	3

Associate of Applied Science in Aviation Maintenance Technology 104-105

**** See page 57 for information on course categories.***

AIRFRAME MAINTENANCE TECHNICIAN CERTIFICATE

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
AVMT 1240 Aircraft Forms, Regulations, Publications and Mathematics	4
AVMT 1260 Basic Electricity I and Aircraft Weight and Balance	4
AVMT 1270 Basic Electricity II, Materials and Processes, etc	4
ENG 1101 College Writing	3
TERM 2	
AVMT 1280 Aviation Physics, Aircraft Drawings, etc	5
AVMT 2220 Aircraft Wood Structures, Covering, etc	5
AVMT 2225 Atmosphere Control, Fire Detection, Ice and Rain Sys	5
TERM 3	
AVMT 2230 Aircraft Sheet Metal	4
AVMT 2235 Aircraft Landing Gear, etc	5
AVMT 2240 Aircraft Electrical Systems	3
MATH 1210 or higher	3-4
TERM 4	
AVMT 2243 Aircraft Instruments, Position and Warning, etc	5
AVMT 2245 Airframe Assembly, Rigging and Welding	5
AVMT 2292 Airframe Inspection, Test and Review	2

Certificate in Airframe Maintenance Technician 57-58

POWERPLANT MAINTENANCE TECHNICIAN CERTIFICATE

RECOMMENDED SEQUENCE OF COURSES

TERM 1	
AVMT 1240 Aircraft Forms, Regulations, Publications and Mathematics	4
AVMT 1260 Basic Electricity I and Aircraft Weight and Balance	4
AVMT 1270 Basic Electricity II, Materials and Processes, etc	4
ENG 1101 College Writing	3
TERM 2	
AVMT 1280 Aviation Physics, Aircraft Drawings, etc	5
AVMT 2250 Reciprocating Engines	4
AVMT 2392 Reciprocating Engines Lab	4
TERM 3	
AVMT 2260 Aircraft Turbine Engines I	6
AVMT 2262 Aircraft Turbine Engines II, etc	4
AVMT 2265 Engine Fuel and Metering Systems	6
TERM 4	
AVMT 2270 Engine Electrical Systems	4
AVMT 2275 Engine Instruments, Cooling, etc	5
AVMT 2280 Propeller Systems, Engine Inspections and Test and Review	5
MATH 1210 or higher	3-4

Certificate in Powerplant Maintenance Technician 61-62

See page 57 for information on course categories.

BAKING

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

■ Certificate of Completion in Baking

PROGRAM DESCRIPTION

The Baking certificate is a three-term 28-30 credit hour program. Topics include scaling, methods of mixing, processing of ingredients, ingredient functions and baking math. The retail production and merchandising of cookies, pies, pastries, quick breads, breads, sweet yeast and cakes are introduced. Students apply safety and sanitation principles and use their baking skills to formulate more difficult components to complete advanced pastries in the second half of the program. Techniques of classical and contemporary pastry arts are covered, including laminated dough, tarts, specialty cakes, genoise, sugar and chocolate decoration and international buttercreams. One of the final lab projects in the Baking program is a wedding cake. The Baking Certificate program is a required part of the Culinary Arts associate of applied science degree, which is nationally accredited by the American Culinary Federation (ACF) Education Foundation's Accrediting Commission. ACF accreditation assures that a program is meeting at least a minimum of standards and competencies set for faculty, curriculum and student services. For more information about ACF go to acfchefs.org. Students may participate in culinary competitions with ACF, SkillsUSA and other extracurricular activities.

SPECIAL REQUIREMENTS

Students entering CULN 1130 and subsequent CULN courses are required to purchase chef's uniforms, textbooks, and tools. Students should be able to lift 30 pounds and must present a physician's certificate to CNM at the start of classes stating that the student is free from tuberculosis in a transmissible form. Students must be able to stand for the duration of the laboratory class.

CAREER AND EDUCATIONAL OPPORTUNITIES

Jobs are available in restaurants, resorts, schools, retirement homes, hospitals, cruise ships, catering companies, convention centers and bakeries.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0750 Basic College Mathematics or Arithmetic score of	57
RDG 0750 Reading Improvement	69

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CULN 1101 Introduction to Culinary Arts	1
Or	
HT 1101 Introduction to Tourism	3
CULN 1102 Applied Culinary Math	1
CULN 1103 Safety and Sanitation Principles	3
IT 1010 Introduction to Computers	3
TERM 2	
CULN 1130 Introduction to Baking Fundamentals	5
CULN 1132 Applied Baking Principles	5
TERM 3	
CULN 2230 Baking and Pastry Fundamentals	5
CULN 2232 Advanced Baking and Pastry Techniques	5

Certificate in Baking 28-30

**** See page 57 for information on course categories.***

BIOTECHNOLOGY

School of Math, Science & Engineering

CONTACT INFORMATION

Program Director: (505) 224-5032

cnm.edu/depts/mse

- **Associate of Science Degree in Biotechnology**
- **Certificate of Completion in Biotechnology**

PROGRAM DESCRIPTION

The Biotechnology Program prepares students for work in dynamic and exciting careers as biotechnicians where they will use cutting-edge technology to uncover the molecular causes of disease, develop new drugs and therapies, enhance agricultural products or remediate environmental problems. Biotechnicians conduct research experiments, run assays, operate lab equipment, and help manage laboratory activities by maintaining records, performing data analysis, and establishing and maintaining quality controls. Students in the Biotechnology Program build knowledge and skills through a program of lectures and extensive hands-on laboratory experience. Laboratory techniques include molecular biology, recombinant DNA, protein isolation and analysis, immunology and cell culture skills. Degree students will also participate in a supervised internship at laboratory facilities during the final term of the program.

The Associates of Science degree is designed for students who wish to acquire the skills necessary to work in the field of biotechnology. Students will receive classroom training in the fundamentals of biology, chemistry and biochemistry, as well as skills taught in Biotechnology core courses.

The Certificate in Biotechnology is designed for students who wish to acquire or upgrade their hands-on laboratory skills in biotechnology. The certificate is composed solely of Biotechnology core courses. The prerequisite for the certificate is that the student must hold a B.S. degree or have significant, transcripted upper-level coursework in chemistry (including biochemistry) and the biological sciences.

SPECIAL REQUIREMENTS

The Biotechnology Program begins only in the summer semester. Because the program builds upon skills learned in previous semesters, the Biotechnology core courses must be taken in sequence. To be accepted into the program a student must have a high school diploma or equivalent, be admitted to CNM and declare Biotechnology as a major.

Students should plan to petition in the spring semester for summer entry into the program. If necessary, the selection of students into the program will be determined by the number of completed arts and sciences courses required for the degree and date of declared major of Biotechnology. As the petition process is subject to change, students should plan to attend an information session to remain current. Information sessions covering the petitioning process, program requirements and career opportunities are scheduled regularly. Dates and times for program information sessions can be obtained by calling the School of Math, Science & Engineering at (505) 224-3561 or by visiting cnm.edu/dept/mse.

Students are required to purchase a lab coat and lab notebook.

CAREER AND EDUCATIONAL OPPORTUNITIES

Both the Biotechnology A.S. degree and Certificate prepare students for immediate employment in the field. Biotechnicians are employed in areas such as basic science research, clinical research, industrial research and development, pharmaceuticals, agricultural engineering and environmental science. Most CNM Biotechnology graduates find work in the first three fields because these are the most common biotechnology industries found in New Mexico. Biotechnology is an emerging industry in New Mexico, and as the bioscience industry continues to grow, so will the opportunities for biotechnicians. In New Mexico, entry level salaries start at $13/hr for A.S. degree technicians and $15 for B.S. degree technicians. Salaries for experienced Biotechnicians can reach $20+/hr.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 1315 College Algebra or College Level Math score of	86
CHEM 1710 + 1792 General Chemistry I with Lab	
CHEM 1810 + 1892 General Chemistry II with Lab	

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED COURSES – CERTIFICATE

COURSE	CREDIT HOURS
BIO 1510/1592 Molecular and Cell Biology	4
BIO 1610/1692 Genetics	4
BIO 2110/2192 Microbiology	4
CHEM 2210 Organic Chemistry and Biochemistry	4

REQUIRED COURSES – DEGREE

BIOT 1010 Introduction to Biotechnology	2
BIO 1510/1592 Molecular and Cell Biology	4
BIO 1610/1692 Genetics	4
BIO 2110/2192 Microbiology	4
CHEM 2210 Organic Chemistry and Biochemistry	4
ENG 1101 College Writing	3
IT 1010 Introduction to Computers	3
MATH 1330 Introduction to Probability and Statistics	3
PHIL 2247 Biomedical Ethics	3

**** See page 57 for information on course categories.***

REQUIRED SEQUENCE OF COURSES

TERM 1 (SUMMER ONLY)

BIOT 1005 Math for the Biotechnology Laboratory (Required for Degree only) 3
BIOT 1210/1270 Biotechnology Laboratory Techniques I 4
BIOT 1211 Biotechnology Seminar II 1

TERM 2 (FALL ONLY)

BIOT 1510/1570 Biotechnology Laboratory Techniques II 5
BIOT 1512 Biotechnology Seminar III 1

TERM 3 (SPRING ONLY)

BIOT 2410/2470 Biotechnology Laboratory Techniques III 5
BIOT 2413 Biotechnology Seminar IV 1
BIOT 2475 Bioinformatics and Proteomics 3

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TERM 4 (SUMMER ONLY)

BIOT 2098 Internship 8
BIOT 2810 Biotechnology Seminar 2

Associate of Science in Biotechnology 63

*** See page 57 for information on course categories.***

BUSINESS ADMINISTRATION

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

- **Associate of Applied Science Degree in Business Administration (Concentrations: Entrepreneurship, Leadership Development, Financial Services, Management, Marketing, Project Management, and Real Estate)**
- **Certificate of Completion in Business Administration, General Business and Project Management**
- **Certificate of Achievement in Continuous Quality Improvement and Human Resources**

PROGRAM DESCRIPTION

The Business Administration program provides opportunities for the business leaders of tomorrow to achieve a high-quality, high-value education that enables them to succeed in a competitive market. Emphasis is placed on hands-on experiences and conducting real-world research and projects. The curriculum includes business concepts such as accounting, business law, management, marketing and sales. Skills related to the applications of these concepts are developed through the study of computer applications, communications, team building and decision making.

The concentrations provide students the opportunity to specialize in a particular business discipline of their choosing. The Business Administration certificate courses and several of the associate degree courses are offered online.

CAREER AND EDUCATIONAL OPPORTUNITIES

Career opportunities are available in both the public and private sectors, including but not limited to: advertising, marketing, entrepreneurship, human resources, sales, real estate, retail, small business management and supervision.

Important Note: Students who plan to transfer to a four-year business program are encouraged to meet with the program associate dean during the first term.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra	72
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ACCT 1109 Business Math	3
ACCT 1111 Accounting 1A	3
BA 1101 Introduction to Business	3
BA 1131 Business Interpersonal Skills	3
IT 1010 Introduction to Computers	3
TERM 2	
ACCT 1112 Accounting IB	3
BA 1121 Business English	3
BA 1133 Principles of Management	3
ENG 1101 College Writing	3
TERM 3	
ACCT 1210 Accounting II	3
BA 2222 Principles of Marketing	3
BA 2240 Business Law	3
Approved Elective (See Approved Elective List)	3
COMM Elective (COMM courses that transfer to UNM include COMM 1130 and 2221) (required for degree only)	3
TERM 4	
BA 1122 Business Writing	3
Or	
ENG 1119 Technical Communications	
BA 2226 Sales	3
Concentration courses (See Below Concentration Options)	6-7
Concentrations: Students must choose a concentration from the list below.	
TERM 5	
BA 2999 Capstone	1
ECON 2200 Macroeconomics or higher	3
MATH 1210 Methods of Problem Solving or higher (except MATH 2110 and 2096)	3-4
Concentration courses (See Below Concentration Options)	6

Certificate in Business Administration 39

**** See page 57 for information on course categories.***

CONCENTRATION OPTIONS

STUDENTS CHOOSE ONE OF THE FOLLOWING CONCENTRATIONS.

ENTREPRENEURSHIP (12 CREDIT HOURS)

BA 1105 Introduction to Entrepreneurship 3
ACCT 1410 QuickBooks Complete 3
Or
BA 1115 Web Business
Or
BA 2225 Marketing Services
Or
BA 2228 Advertising
Or
BA 2230 Customer Relations
BA 2103 Entrepreneurship 6
Or
BA 2101 Entrepreneurship 1A 3
And
BA 2102 Entrepreneurship 1B 3

LEADERSHIP DEVELOPMENT (CHOOSE 12 CREDIT HOURS)

BA 1150 Introduction to Quality Management 1
BA 1151 Fundamentals of CQI 1
B A 1152 Quality Tools 1
BA 2153 Team Building for Quality 1
BA 2154 Re-engineering for Quality 1
BA 2155 Quality Leadership 1
BA 2234 Organizational Behavior 3
BA 2281 Ethics in Business 3
BA 2282 Leadership in Group Dynamics 3
BA 2284 Strategic Management 3

FINANCIAL SERVICES (12 CREDIT HOURS)

FIN 1100 Principles of Banking 3
FIN 1310 Fundamentals of Risk Management and Insurance 3
FIN 2210 Finance 3
Approved elective (See Approved Elective List) 3

MANAGEMENT (12 CREDIT HOURS)

BA 2232 Supervision 3
BA 2234 Organizational Behavior 3
BA 2238 Human Resource Management 3
Approved Elective (See Approved Elective List) 3

MARKETING (12 CREDIT HOURS)

BA 2228 Advertising 3
BA 2223 Consumer Behavior 3
BA 2224 Introduction to Market Research 3
BA 2220 Web Marketing 3
Or
BA 2221 International Marketing
Or
BA 2225 Marketing Services

PROJECT MANAGEMENT (13 CREDIT HOURS)

CIS 2110 Project Management Software 1
PM 1130 Project Management Fundamentals 3
PM 1150 Effective Project Management 3
PM 2200 Budget and Resource Management 3
PM 2210 Contract Management 3

REAL ESTATE (12 CREDIT HOURS)

BA 2270 Real Estate Law 3
BA 2271 Real Estate Principles and Practice 3
BA 2275 Broker Basics 3
Approved Elective (See Approved Elective List) 3

Associate of Applied Science in Business Administration 67-69

APPROVED ELECTIVES

ACCT 1120 Payroll Accounting or higher 3-6
BA courses (except those required for certificate or degree) 3-6
CIS courses 1-3
CSE 1101 College Success or higher 1-3
FIN courses (except those required for degree) 3-6
PM courses (except those required for degree) 3-6
BA1096, 2096, or 2196. Topics 1-3

PROJECT MANAGEMENT CERTIFICATE

Project Management is one of the fastest growing disciplines and is used in a multitude of business and government agencies such as information technology, construction, engineering, financial services, and health care to name a few. The courses focus on the different aspects of project management, and students have the opportunity to create a project plan, prepare a project master schedule, develop a work breakdown structure, allocate resources, and assign labor hours to a project. The courses may be applied to an associate of applied science degree in Business Administration.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CIS 2110 Project Management Software	1
PM 1130 Project Management Fundamentals	3
PM 1150 Effective Project Management	3
TERM 2	
PM 2200 Budget and Resource Management	3
PM 2210 Contract Management	3
TERM 3	
PM 2250 Advanced Project Management	3

Certificate in Project Management 16

CONTINUOUS QUALITY IMPROVEMENT CERTIFICATE

The Continuous Quality Improvement Certificate of Achievement is a series of courses that focus on quality concepts, data gathering, quality tools, team building, action plans and strategies to implement quality leadership throughout an organization. Process improvement and organizational cultural change are covered in each area. The courses may be applied to an associate of applied science degree in Business Administration.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BA 1150 Introduction to Quality Management	1
BA 1151 Fundamentals of CQI	1
BA 1152 Quality Tools	1
TERM 2	
BA 2153 Team Building for Quality	1
BA 2154 Re-engineering for Quality	1
BA 2155 Quality Leadership	1

Certificate in Continuous Quality Improvement..... 6

See page 57 for information on course categories.

GENERAL BUSINESS CERTIFICATE

The General Business Certificate of Completion is a series of courses for individuals who want to begin or expand their skills in business. The courses may be applied to an associate of applied science degree in Business Administration.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ACCT 1109 Business Math	3
ACCT 1111 Accounting IA	3
BA 1131 Business Interpersonal Skills	3
BA 1101 Introduction to Business	3
Or	
BA 1133 Principles of Management	
IT 1010 Introduction to Computers	3
ACCT 1112 Accounting IB	3
Or	
BA 1121 Business English	
Or	
BA 1115 Web Business	
Or	
BA 1105 Introduction to Entrepreneurship	
Or	
FIN 1100 Principles of Banking	
Or	
BA 1103 Introduction to International Business	

Certificate in General Business 18

HUMAN RESOURCES CERTIFICATE

The Human Resources Certificate of Achievement is a series of courses for individuals who wish to enhance their knowledge of the service functions of management such as recruiting, career development, equal opportunity, motivation, performance appraisal, selecting personnel, rights and responsibilities of employers and employees, and ethics. The courses may be applied to an associate of applied science degree in Business Administration.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BA 1133 Principles of Management	3
BA 2242 Employment Law for Business	3
Or	
BA 2240 Business Law	
TERM 2	
BA 2232 Supervision	3
BA 2234 Organizational Behavior	3
BA 2238 Human Resource Management	3

Certificate in Human Resources 15

** See page 57 for information on course categories.*

CARPENTRY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

- **Certificate of Completion in Carpentry**
- **Certificate of Achievement in Framing**
- **Certificate of Achievement in Precision Woodworking**

PROGRAM DESCRIPTION

The Carpentry Certificate program provides students the opportunity to acquire knowledge and technical skills necessary to gain employment in the construction industry. Students will read and interpret construction blueprints, experience techniques using concrete for foundations, framing of building walls, erecting roofing systems, installing drywall and taping. Students focus on tapping and bedding and wall finishes as well as exterior and interior door hanging, window installation and trim work. The building of a "cottage" from the ground up is a required part of the carpentry curriculum. The application of the International Residential Code is emphasized.

Additional courses are available to enhance this program of study. Please contact the program chair or program director for information.

SPECIAL REQUIREMENTS

Students are required to purchase textbooks, hand tools and personal protective equipment.

CAREER AND EDUCATIONAL OPPORTUNITIES

In addition to the general carpentry courses, students may take additional coursework including construction management, computer aided drafting, commercial construction theory, cost estimating, construction equipment, methods and general contractor preparation to earn an Associate Degree from Construction Technology. 100 percent of Carpentry graduates obtained employment in 2007-2008.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite information.

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0550 Basic Mathematics or Arithmetic score of	31

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CARP 1005 Carpentry Blueprint Reading I	4
CARP 1320 Carpentry Fundamentals	3
Or	
CARP 1010 Introduction to Carpentry	
And	
CARP 1092 Construction Lab A	
CARP 1015 Structural Systems I	1
CARP 1020 Structural Systems II	1
CARP 1192 Construction Lab B	2
CARP 1292 Construction Lab C	2
ESH 2006 Occupational Safety for Construction	1

Certificate in Framing 14

TERM 2	
CARP 2005 Carpentry Blueprint Reading 11	4
CARP 2010 Exterior Finishes	1
CARP 2015 Interior Finishes I	1
CARP 2020 Interior Finishes II	1
CARP 2092 Construction Lab A	2
CARP 2192 Construction Lab B	2
CARP 2292 Construction Lab C	2

Certificate in Carpentry 27

**** See page 57 for information on course categories.***

PRECISION WOODWORKING CERTIFICATE

The Precision Woodworking Certificate program provides students the fundamental knowledge and skills of millwork for furniture and cabinet making. Students have the opportunity to design and build woodworking projects in a modern, woodworking shop using commercial quality power tools such as table saws, joiners, planners, routers and carving machines. Subject matter includes drawing and dimensioning, shop math, cost estimating and types of materials and fasteners used in a typical woodworking shop. Graduates will be ready for entry level positions in the precision woodworking industry.

COURSE	CREDIT HOURS
CARP 1320 Carpentry Fundamentals	3
CARP 1305 Furniture Making	3
CARP 1310 Advanced Furniture Making	3
CARP 1315 Cabinetmaking	3

Certificate in Precision Woodworking 12

CHILD, YOUTH AND FAMILY DEVELOPMENT

School of Communication, Humanities & Social Sciences

CONTACT INFORMATION

Program Director: (505) 224-3588, Program Outreach Specialist: (505) 224-3607

cnm.edu/teachered

■ **Associate of Arts Degree in Child, Youth and Family Development (Concentrations in Family Studies and Social Work)**

PROGRAM DESCRIPTION

The Child, Youth and Family Development program facilitates the learning of theory and competencies required to work in specific child and family settings. The Associate's degree includes a general education curriculum of 35 hours, which is accepted by New Mexico's colleges and universities as the general education core for degree completion.

- The Family Studies Concentration: Focuses on learning about child development from infancy to adolescence and the dynamics of family interactions.
- The Social Work Concentration: Provides for diverse learning based upon student's interests in the social work field to include: child development, family studies, sociology, psychology, and criminal justice.

SPECIAL REQUIREMENTS

Students may be required to undergo a TB test and a criminal background check prior to beginning their field/practicum experience. All courses required for transfer must be taken for a traditional grade of A, B, C, etc. For courses offered only for credit/no credit, a grade of credit (CR) must be earned.

Students using previous catalogs who have not taken CDV 1105 will need to take ECME 2230 + ECME 2690.

CAREER AND EDUCATIONAL OPPORTUNITIES

Students pursuing a degree in Family Studies can work in a variety of settings including human services, community education, parenting education, health-care, caregiver support and long-term care programs, premarital and marriage education, work-life, family mediation, and adoption support.

Students pursuing a degree in Social Work have the opportunity to work with many types of people in a variety of settings. They may work with children and families, older adults, or people with mental illnesses. They often work in hospitals, nursing homes, substance abuse centers, and government agencies. The duties of a social worker or social services assistant may include planning group therapy, assisting clients with applying for social programs such as Medicare and welfare, and maintaining accurate client records.

An associate's degree in social work is often required for obtaining a position as a social services assistant. Social workers are typically required to have a bachelor's degree in social work (BSW) or higher. A master's degree in social work (MSW) can provide opportunities for advancement into clinical social work or social services management.

Graduates from the program may transfer to designated four-year institutions that grant Bachelors degrees in Family Studies or Social Work. The Social Work concentration is specifically articulated for transfer to New Mexico Highlands University's (Rio Rancho and Albuquerque) bachelors degree in Social Work.

Transfer and articulation agreement information is available at cnm.edu/transferout.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
RGD 0950 Reading and Critical Thinking	80
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

FAMILY STUDIES CONCENTRATION

COURSE	CREDIT HOURS
TERM 1	
ENG 1101 College Writing	3
MATH 1110 Mathematics for Elementary and Middle School Teachers I or higher	3
BIOLOGICAL/PHYSICAL SCIENCE Elective (INCLUDING LAB, SEE LIST)	4
ECME 1108 Health, Safety and Nutrition	2
CDV 1103 Preschool Growth and Development	3
TERM 2	
COMM 1130 or COMM 2221 OR COMM 2270 (COMM 2270 Recommended)	3
ENG 1102 Analytic and Argumentative Writing	3
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3
ECME 2230 Infant-Toddler Growth, Development and Learning	3
ECME 2690 Infant-Toddler Growth, Development and Learning Practicum	2
CDV Elective (SEE LIST)	3
TERM 3	
BIOLOGICAL/PHYSICAL SCIENCE Elective (INCLUDING LAB, SEE LIST)	4
FINE ARTS Elective (SEE LIST)	3
HIST 1161 or 1162 or 2260	3
CDV 2201 Middle Childhood Growth and Development	3
CDV 1890 Family Studies Practicum I (FALL)	2
TERM 4	
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3
CDV 2202 Adolescent Growth and Development	3
HIST 1101 or 1102	3
CDV 2219 Marriages and Families	3
CDV Elective (SEE LIST)	3

Associate of Arts in Children Youth and Family Development: Family Studies 62

**** See page 57 for information on course categories.***

APPROVED ELECTIVES

CDV ELECTIVES

CDV 1101, 1107, 2096…2996, 2297, 2212, 2218, 2299, 2890, ECME 2201, 2206, 2214, 2230, SPED 2201, 2290,

BIOLOGICAL/PHYSICAL SCIENCE ELECTIVES (SELECT FROM BIO AND ONE OTHER SUBJECT AREA)

ASTR 1110/1192; BIO 1010/1092 or 1110/1192 or 1510/1592; CHEM 1410/1492 or 1710/1792; PHYS 1510/1592 or 1710/1792; NS 1010 or 1015 or 2010

FINE ARTS ELECTIVES

ARTH 1101, 2201, 2202, 2250, 2251, MUS 1139, 1140, THEA 1122

SOCIAL/BEHAVIORAL SCIENCE ELECTIVES (SELECT FROM 2 DIFFERENT SUBJECT AREAS)

ANTH 1101 or 1130; ECON 2200 or 2201; PSY 1105, SOC 1101

SOCIAL WORK CONCENTRATION

TERM 1

ENG 1101 College Writing 3
IT 1010 or EDUC 2265 3
CDV 2210 Introduction to Social Work (SPRING) 3
CDV 2890 CYFD Practicum (SPRING) 2
SOC 1101 or 2205 or 2211 or 2213 or 2216 or 2225 or 2235 3

TERM 2

ENG 1102 Analytic and Argumentative Writing 3
COMM 1130 or COMM 2221 3
NS 1010 or BIOLOGICAL/PHYSICAL SCIENCE Elective (INCLUDING LAB, SEE LIST) 4
PSY 1105 or ANTH 1101 or 1130 3
APPROVED SOCIAL WORK ELECTIVE (SEE LIST) 3

TERM 3

NS 1015 or 2010 or BIOLOGICAL/PHYSICAL SCIENCE Elective (INCLUDING LAB, SEE LIST) 4
HUMANITIES ELECTIVE 3
APPROVED SOCIAL WORK ELECTIVE (SEE LIST) 9

TERM 4

FINE ARTS ELECTIVE 3
MATH 1210 or 1315 or 1330 or higher 3
APPROVED SOCIAL WORK ELECTIVE (SEE LIST) 9

Associate of Arts in Children Youth and Family Development: Social Work 61

APPROVED ELECTIVES

If not used as required course

SOCIAL WORK ELECTIVES

CDV 1101, 1103, 1107, 1890, 2096—2996, 2297, 2201, 2202, 2218, 2219, 2299, CJ 1002, 1007, 1502, EDUC 2204 or ECME 1104, EDUC 2207, PSY 1105, 2220, 2231, 2271, 2289, SOC 1101, 2205, 2211.. , 2212, 2213, 2215, 2216, 2225, 2230, 2235, 2280, SPAN 1101 or higher

BIOLOGICAL/PHYSICAL SCIENCE ELECTIVES (SELECT FROM TWO DIFFERENT SUBJECT AREAS)

ASTR 1110/1192; BIO 1010/1092 or 1110/1192 or 1510/1592; CHEM 1410/1492 or 1710/1792; PHYS 1510/1592 or 1710/1792

FINE ARTS ELECTIVES

ARTH 1101, 2201, 2202, 2250, 2251, MUS 1139, 1140, THEA 1122

HUMANITIES ELECTIVES

Any HIST, HUM 1111, 1121, ENG 1150, 2096—2996, 2206, 2207, 2208, 2209, 2210, 2250, 2251, 2252, 2262, 2263, 2270, 2285, 2287, 2288, PHIL 1102, 1110, 1156, 2245, 2250, 2257, RGLN 1107, 2263

**** See page 57 for information on course categories.***

COMPUTER ASSISTED DRAFTING

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3340 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

■ Certificate of Achievement in Computer Assisted Drafting

PROGRAM DESCRIPTION

The Certificate of Achievement in CAD is designed to prepare students in the use of industry standard software to develop two- and three-dimensional CAD skills.

CAREER AND EDUCATIONAL OPPORTUNITIES

The Certificate of Achievement in CAD for entry-level positions as CAD technicians. The Certificate of Achievement is also conducive to those seeking professional and technical skill upgrading in the design profession.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80
IT 1010 Introduction to Computers	

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CAD 1001 Basics of CAD	1
ARDR 1010 CAD Analysis I	2
ARDR 1220 CAD Analysis II	3
ARDR 1320 CAD Analysis III	3
Approved ARDR Elective	2-3

Certificate in Computer Assisted Drafting.....11-12

APPROVED ARDR ELECTIVES

ARDR 1110 Architectural Mathematics	3
ARDR 1392 Advanced CAD	2
ARDR 2192 Site Analysis	2
ARDR 2295 Cooperative Education	3
ARDR 2296 Topics	1-7
ARDR 2297 Independent Study	1-7
ARDR 2298 Internship	3

**** See page 57 for information on course categories.***

COMPUTER INFORMATION SYSTEMS

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

- **Associate of Applied Science Degree in Computer Information Systems (Concentrations in Computer Programming, Database Technology, Digital Media, Network Administration, Software Systems and Applications, Systems Administration, Web Technology)**
- **Certificate of Completion in Computer Information Systems (Concentrations in Computer Programming, Database Technology, Digital Media, Network Administration, Software Systems and Applications, Systems Administration, Web Technology)**

PROGRAM DESCRIPTION

Computer Information Systems encompasses a broad field of computer-based area of studies. Information technology offers some of the highest paying and most challenging jobs in today's market. Our students gain a solid foundation in current technology as well as general education courses. Here is a brief summary of some of our concentrations: **Computer Programming** emphasizes designing and building computer programs using C++, Java and .NET VB and/or C#. Students learn object-oriented design, Graphic User Interface construction and web applications and web services. **Database Technology** prepares students to be Database Programmers or Analysts. Database design, implementation, and maintenance is incorporated with the Oracle Academy online courses. Students will also have the opportunity to gain Oracle certification. **Network Administration** emphasizes networking from small to big enterprises using the CISCO Academy. **Systems Administration** focuses on design, implementation, management and troubleshooting computer systems in a business environment.

The required courses in the program cover all the objectives needed to pass the MCITP Server and/or Enterprise Administrator exams. Other concentrations include **Digital Media, Software Systems and Applications, and Web Technology.**

Transfer and articulation agreement information is available at cnm.edu/transferout.

Note: The associate of applied science degree transfers at least 30 technical credits and applicable arts and sciences credits to the University of New Mexico College of Education toward the Technology and Training program. Contact (505) 224-3811 for more information.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COMPUTER PROGRAMMING CONCENTRATION

In the Computer Programming program, we emphasize designing and building software using three different computer programming languages. Our goal is two-fold 1) to provide our students with a solid foundation in computer programming and general education courses and 2) to train our students in the current computer programming techniques according to industry standards.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0940 Algebraic Problem Solving II or Elementary Algebra score of	81
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BA 1131 Business Interpersonal Skills	3
CIS 1207 Programming Logic and Design	3
CIS 1513 Database Design and Introduction to SQL	3
IT 1010 Introduction to Computers	3
MATH 1210 Methods of Problem Solving	4
TERM 2	
CIS 1275 C++ Programming I	3
CIS 1284 .NET I/ Visual Basic	3
Or	
CIS 1280 .NET I/ C#	
IT 1020 Integrating Business and Technology	3
ENG 1101 College Writing	3
MATH 1310 Intermediate Algebra (required for degree only)	4
TERM 3	
CIS 2235 Java Programming I	3
CIS 2275 C++ Programming II	3
CIS 2520 Introduction to SQL (Structured Query Language)	3
ENG 1119 Technical Communications	3
Or	
ENG 2219 Technical Writing	
MATH 1315 College Algebra (required for degree only)	3

Certificate in Computer Information Systems (Computer Programming Concentration) 40

TERM 4	
*BIOLOGICAL OR PHYSICAL SCIENCE and Lab	4
COMM 2221 Interpersonal Communication Studies	3
CIS 1680 Linux Essentials	3
CIS 2237 Java Programming II	3
Or	
CIS 2277 C++ Programming III	
Or	
CIS 2284 .NET II/ C#/ Visual Basic	

See page 57 for information on course categories.

TERM 5

BA 2999 Capstone Course 1
*SOCIAL/BEHAVIORAL SCIENCES OR HUMANITIES ELECTIVE 3
Approved Computer Programming Elective (SEE LIST) 3-4

Associate of Applied Science in Computer Information Systems (Computer Programming Concentration).....67-68

APPROVED COMPUTER PROGRAMMING ELECTIVES

CIS XX96 Any CIS Topics Course 1-3
CIS 1250 Introduction to Python 3
CIS 2095 Cooperative Education 4
CIS 2097 Independent Study ..... variable
CIS 2098 Internship 4
CIS 2237 Java Programming II (if CIS 2277 or CIS 2284 taken as program elective) ... 3
CIS 2270 Open GL Programming 3
CIS 2277 C++ Programming III (if CIS 2237 or CIS 2284 taken as program elective) .. 3
CIS 2279 Windows Programming in C++ 3
CIS 2284 .NET II/ C#/ Visual Basic (if CIS 2237 or CIS 2277 taken as program elective) 3
CIS 2521 Database Programming with PL/SQL 3
CIS 2522 Oracle Internet Forms 3
CSE 1101 College Success or higher 1-3

DATABASE TECHNOLOGY CONCENTRATION

For many organizations database systems are the most business-critical components of their information technology infrastructure. Databases drive accounting, human resources, inventory, sales and other key operations. Qualified database designers are in great demand to design, maintain and secure these systems for maximum efficiency and competitiveness. Students learn the theoretical and practical aspects of designing, developing, implementing, managing and maintaining major database management systems (DBMS).

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0940 Algebraic Problem Solving II or Elementary Algebra score of	81
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BA 1131 Business Interpersonal Skills	3
CIS 1207 Programming Logic and Design	3
CIS 1513 Database Design and Introduction to SQL	3
IT 1010 Introduction to Computers	3
MATH 1210 Methods of Problem Solving	4
TERM 2	
CIS 1680 Linux Essentials	3
CIS 2520 Introduction to SQL (Structured Query Language)	3
IT 1020 Integrating Business and Technology	3
ENG 1101 College Writing	3
MATH 1310 Intermediate Algebra (required for degree only)	4
TERM 3	
CIS 1275 C++ Programming I	3
CIS 2521 Database Programming with PL/SQL	3
CIS 2522 Oracle Internet Forms	3
ENG 1119 Technical Communications	3
Or	
ENG 2219 Technical Writing	
MATH 1315 College Algebra (required for degree only)	3

Certificate in Computer Information Systems (Database Technology Concentration) 40

TERM 4

*BIOLOGICAL/PHYSICAL SCIENCE and Lab 4
COMM 2221 Interpersonal Communication Studies 3
CIS 2150 MS SQL Server- Implementation and Maintenance 3
CIS 2524 Oracle Reports 3

TERM 5

BA 2999 Capstone Course 1
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCE ELECTIVE 3
Approved Database Technology Elective (SEE LIST) 3-4

Associate of Applied Science in Computer Information Systems (Database Technology Concentration) 67-68

APPROVED DATABASE TECHNOLOGY ELECTIVES

CIS XX96 Any CIS Topics Course 1-3
CIS 1280 .NET I/C# 3
CIS 1284 .NET I/Visual Basic 3
CIS 2095 Cooperative Education 4
CIS 2097 Independent Study ..... variable
CIS 2098 Internship 4
CIS 2235 Java Programming I 3
CIS 2275 C++ Programming II 3
CIS 2284 NET II/C#/Visual Basic 3
CSE 1101 College Success or higher 1-3

DIGITAL MEDIA CONCENTRATION

Digital Media is a combination of technology and design. The program offers classes in areas such as graphic design/2d modeling, desktop/electronic publishing, web design, digital audio and video editing. Digital Media offers individuals the education and tools necessary to bring classic media like text, graphics, photos and research into the digital arena.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
CERTIFICATE	
ENG 0750 Practical Writing	69
RDG 0750 Reading Improvement	69
DEGREE	
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

**** See page 57 for information on course categories.***

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BA 1121 Business English	3
CIS 1130 Windows	1
CIS 1325 Visual Communication for Business Design	3
IT 1010 Introduction to Computers	3
IT 1020 Integrating Business and Technology	3
TERM 2	
BA 1131 Business Interpersonal Skills	3
CIS 1185 Adobe Acrobat	1
CIS 1310 Introduction to Multimedia	3
CIS 1330 PhotoShop	3
CIS 2310 Desktop Publishing	3
TERM 3	
CIS 1713 XHTML Complete	3
Or	
CIS 1710 Beginning XHTML	
And	
CIS 1711 Intermediate XHTML	
And	
CIS 1712 Advanced XHTML	
CIS 2340 Dreamweaver	2
CIS 2350 Flash	3
CIS 2355 Adobe Illustrator	3
CIS 2360 Digital Video Editing	3
TERM 4	
CIS 1715 Overview of Web Technologies	3
CIS 2336 Introduction to Motion Graphics	3
ENG 1101 College Writing	3
MATH 1210 Methods of Problem Solving or higher (except MATH 2110 and 2096)	3 or4
TERM 5	
BA 2999 Capstone Course	1
CIS 2380 PhotoShop Practicum	2
COMM 1110 Mass Media and Society	3
Or	
COMM 1130 Public Speaking	
ENG 1119 Technical Communications	3
Or	
ENG 2219 Technical Writing	
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCES ELECTIVE	3

Certificate in Computer Information Systems (Digital Media Concentration) 40

Associate of Applied Science in Computer Information Systems (Digital Media Concentration).....64-65

NETWORK ADMINISTRATION CONCENTRATION

The Networking Administration program is designed to teach students how to manage, administer and troubleshoot small IP-based computer networks. Classes focus on an operating system overview, introductory networking and cabling, routers and routing, intermediate routing and switching, and Wide Area Networks (WANs). All classes are taught in accordance with the Cisco Academy CCNA program's objectives. Learning these objectives is key for students who wish to seek the Cisco Certified Network Associate certification. The courses help prepare the students for the exam.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0940 Algebraic Problem Solving II or Elementary Algebra score of (for degree)	81
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BA 1131 Business Interpersonal Skills	3
CIS 1410 IT Essentials I: PC Hardware and Software	3
IT 1010 Introduction to Computers	3
MATH 1310 Intermediate Algebra (required for degree only)	4
TERM 2	
CIS 1415 IT Essentials II: Network Operating Systems	3
CIS 1425 Network Topologies/Cisco Academy Semester I	3
IT 1020 Integrating Business and Technology	3
MATH 1315 College Algebra (required for degree only)	3
TERM 3	
CIS 1207 Programming Logic and Design	3
CIS 1680 Linux Essentials	3
CIS 2420 Basic Router Configuration/Cisco Academy Semester 2	3
ENG 1101 College Writing	3
TERM 4	
CIS 2423 Local Area Network Management/Cisco Academy Semester 3	3
CIS 2450 Fundamentals of Network Security	3
COMM 2221 Interpersonal Communication Studies	3
ENG 1119 Technical Communications	3
Or	
ENG 2219 Technical Writing	3
Approved Networking Elective (SEE LIST)	3-4
TERM 5	
BA 2999 Capstone Course	1
CIS 2425 Wide Area Network Management/ Cisco Academy Semester 4	3
CIS 2427 Troubleshooting Networks	3
*BIOLOGICAL/PHYSICAL SCIENCE and Lab	4
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCE ELECTIVE	3

Certificate in Computer Information Systems (Network Administration Concentration) 30

Associate of Applied Science in Computer Information Systems (Network Administration Concentration) 66-67

APPROVED NETWORKING ELECTIVES

BA 1152 Quality Tools	1
CIS XX96 Any CIS Topics Course	1-3
CIS 1250 Introduction to Python	3
CIS 1275 C++ Programming I	3
CIS 1280 .NET I/C#	3
CIS 1284 .NET I/Visual Basic	3
CIS 1513 Database Design and Introduction to SQL	3
CIS 1610 Windows Client Software for Systems Administrators	3
CIS 1710 Beginning XHTML	1
CIS 1711 Intermediate XHTML	1
CIS 1712 Advanced XHTML	1

See page 57 for information on course categories.

CIS 1715 Overview of Web Technologies 3
CIS 1730 Web Programming with JavaScript 3
CIS 2095 Cooperative Education 3
CIS 2097 Independent Study ..... variable
CIS 2098 Internship 4
CIS 2120 Hardware and Software Administration 3
CIS 2235 Java Programming I 3
CIS 2275 C++ Programming II 3
CIS 2284 .NET II/C#/Visual Basic 3
CIS 2520 Introduction to SQL (Structured Query Language) 3
CIS 2620 Windows Server Management 3
CIS 2680 Linux Administration 3
CSE 1101 College Success or higher 1-3

SOFTWARE SYSTEMS AND APPLICATIONS CONCENTRATION

The Software Systems and Applications concentration is a program that offers the opportunity to explore the use of software in the business environment. Students have an opportunity to study computing theory, software applications including database systems, and problem solving.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
CERTIFICATE	
ENG 0750 Practical Writing	69
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	81
RDG 0750 Reading Improvement	69
DEGREE	
ENG 0950 Essay Writing	85
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE — CREDIT HOURS

TERM 1
ACCT 1109 Business Math 3
BA 1121 Business English 3
BA 1131 Business Interpersonal Skills 3
IT 1010 Introduction to Computers 3
IT 1020 Integrating Business and Technology 3

TERM 2
CIS 1120 Microsoft Word 3
CIS 1145 Microsoft PowerPoint 2
CIS 1160 Introduction to Information Management 3
CIS 1173 Excel Complete 3
Or
CIS 1170 Excel Fundamentals 1
And
CIS 1171 Intermediate Excel 1
And
CIS 1172 Advanced Excel 1
CIS 1207 Programming Logic and Design 3
ENG 1101 College Writing (for degree only) 3

TERM 3
CIS 1183 Access Complete 3
Or
CIS 1180 Access Fundamentals 1
And
CIS 1181 Intermediate Access 1
And
CIS 1182 Advanced Access 1
CIS 1185 Adobe Acrobat 1
CIS 1713 XHTML Complete 3
CIS 1420 Introduction to Computer Networking 3
CIS 2120 Hardware and Software Administration (for degree only) 3
CIS 2110 Project Management Software 1
COMM 1130 Public Speaking (for degree only) 3
Or
COMM 2221 Interpersonal Communication Studies (for degree only)
Or
ENG 1119 Technical Communications (for degree only)
Or
ENG 2219 Technical Writing (for degree only)

Certificate in Computer Information Systems (Software Systems and Applications Concentration) 40

TERM 4
BA 2999 Capstone Course 1
CIS 2121 Advanced Hardware and Software Management 3
CIS 2147 Macro Programming 3
CIS 2149 MS Visio 1
CIS 2520 Introduction to SQL 3
MATH 1210 Methods of Problem Solving or higher (except MATH 2110 and 2096) ..... 3 or 4
PHIL 1156 Logical and Critical Thinking 3
Or
PHIL 2245 Business Ethics

Associate of Applied Science in Computer Information Systems (Software Systems and Applications Concentration)....66-67

SYSTEMS ADMINISTRATION CONCENTRATION

The program is designed to prepare students for a career in Information Technology with a focus on system administration. Students learn to design, implement, manage and troubleshoot computer systems in a business environment and work with client and server software and hardware. Students practice operating system installation, user management, security, hardware configuration and a variety of other tasks related to system administration.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0940 Algebraic Problem Solving II or Elementary Algebra score of	81
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE — CREDIT HOURS

TERM 1
BA 1131 Business Interpersonal Skills 3
CIS 1420 Introduction to Computer Networking 3
IT 1010 Introduction to Computers 3
IT 1020 Integrating Business and Technology 3
MATH 1310 Intermediate Algebra (required for degree only) 4

**** See page 57 for information on course categories.***

TERM 2

CIS 1610 Windows Client Software for Systems Administrators 3
CIS 1680 Linux Essentials 3
CIS 2620 Windows Server Management 3
ENG 1101 College Writing 3
MATH 1315 College Algebra (required for degree only) 3

TERM 3

CIS 2120 Hardware and Software Administration 3
CIS 2630 Windows Server Application Infrastructure Configuration 3
CIS 2635 Windows Directory Services Management 3
CIS 2650 Windows Server Network Infrastructure Configuration 3

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TERM 4

CIS 1207 Programming Logic and Design 3
CIS 2621 Windows Server Enterprise Administration 3
CIS 2670 Computer Security + ... 3
ENG 1119 Technical Communications 3
Or
ENG 2219 Technical Writing

TERM 5

BA 2999 Capstone Course 1
COMM 2221 Interpersonal Communication Studies 3
*BIOLOGICAL OR PHYSICAL SCIENCE and Lab 4
*HUMANITIES OR SOCIAL/BEHAVIOR SCIENCE Elective 3
Approved Systems Administration Elective (SEE LIST) 3-4

Associate of Applied Science in Computer Information Systems (Systems Administration Concentration) 69-70

APPROVED SYSTEMS ADMINISTRATION ELECTIVES

BA 1152 Quality Tools 1
CIS XX96 Any CIS Topics Course 1-3
CIS 1160 Introduction to Information Management 3
CIS 1275 C++ Programming I 3
CIS 1280 .NET I/C# 3
CIS 1284 .NET I/Visual Basic 3
CIS 1425 Network Topologies/Cisco Academy Semester I 3
CIS 1620 Windows Client for Enterprise Support Technicians 3
CIS 1625 Windows Client for Consumer Support Technicians 3
CIS 1715 Overview of Web Technologies 3
CIS 2095 Cooperative Education 4
CIS 2097 Independent Study ..... variable
CIS 2098 Internship 4
CIS 2121 Advanced Hardware and Software Management 3
CIS 2149 MS Visio 1
CIS 2150 MS SQL Server- Implementation and Maintenance 3
CIS 2151 MS Exchange Server 3
CIS 2610 Foundations of Network + ... 3
CIS 2660 Principles of Information Security 3
CIS 2680 Linux Administration 3
CSE 1101 College Success or higher 1-3

WEB TECHNOLOGY CONCENTRATION

In the Web Technology program, students acquire the necessary skills for entry level Web site designers and developers. This program offers training in the most current technologies used for Web development, including but not limited to developing database driven Web sites. Students learn to create web sites using current GUI development tools as well as creating industry standard compliant web sites.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
CERTIFICATE	
ENG 0750 Essay Writing	69
RDG 0750 Reading Improvement	69
DEGREE	
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

RECOMMENDED PREREQUISITES SUGGESTED FOR PROGRAM SUCCESS

CIS 1207 Programming Logic and Design

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BA 1131 Business Interpersonal Skills	3
CIS 1715 Overview of Web Technologies	3
IT 1010 Introduction to Computers	3
IT 1020 Integrating Business and Technology	3
TERM 2	
CIS 1330 PhotoShop	3
CIS 1513 Database Design and Introduction to SQL	3
CIS 1713 XHTML Complete	3
Or	
CIS 1710 Beginning XHTML	1
And	
CIS 1711 Intermediate XHTML	1
And	
CIS 1712 Advanced XHTML	1
TERM 3	
CIS 1730 Web Programming with JavaScript	3
CIS 1750 Web Programming with PHP	3
CIS 2340 Dreamweaver	2
CIS 2520 Introduction to SQL	3
CIS 2740 Cascading Style Sheets	3

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TERM 4

CIS 1725 Extensible Markup Language 3
CIS 2745 ASP.NET 3
CIS 2750 ColdFusion 3
ENG 1101 College Writing 3

TERM 5

CIS 2755 JavaServer Pages 3
ENG 1119 Technical Communication 3
*HUMANITIES Elective 3
COMMUNICATION Elective 3
MATH 1210 Methods of Problem Solving or higher (except MATH 2110 and 2096) 4
BA 2999 Capstone Course 1

Associate of Applied Science Computer Information Systems (Web Technology Concentration) 64

See page 57 for information on course categories.

COMPUTING TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3340 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

- **Associate of Applied Science Degree in Computing Technology (Concentration in Computer Animation)**
- **Certificate of Completion in Computing Technology (Concentration in Computer Animation)**

PROGRAM DESCRIPTION

Computer Animation provides students with skills in: two- and three-dimensional computer generated image (cgi) creation; digital drawing and printing production; and demo reel production.

CAREER AND EDUCATIONAL OPPORTUNITIES

Graduates are prepared for jobs as computer animation technicians.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
CERTIFICATE	
ENG 0950 Essay Writing or Sentence Skills score of	85
RDG 0950 Reading and Critical Thinking or Reading score of	80
IT 1010 Introduction to Computers	
DEGREE	
MATH 0940 Algebraic Problem Solving II or Elementary Algebra score of	81
IT 1010 Introduction to Computers	

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ANIM 1001 Survey of Computer Animation	3
ARTS 1106 Drawing I	3
CIS 1130 Photoshop	3
ENG 1101 College Writing	3
TERM 2	
ANIM 1003 Techniques for Animation Text	3
ANIM 1005 Introduction to Lightwave	3
ANIM 1007 Introduction to Maya	3
ARTS 1121 Two-Dimensional Design	3
TERM 3	
ANIM 1009 Intermediate Lightwave	3
ANIM 1011 Intermediate Maya	3
ANIM 1013 Advanced Computer Animation	3
ARTS 1122 Three-Dimensional Design	3

Certificate in Computing Technology 36

TERM 4	
CIS 1207 Programming Logic and Design	3
MATH 1210 or higher (except MATH 2110 and MATH 2096)	3-4
Approved Elective	6
TERM 5	
ANIM 2999 Capstone	3
CIS 1275 C++ Language Programming I	3
Approved Elective	6

Associate of Applied Science in Computing Technology (Concentration Computer Animation) 60-61

APPROVED ELECTIVES

ACCT 1111 Accounting 1A	3
ANIM 2096 Topics	1-7
ANIM 2097 Independent Study	1-7
ANIM 2098 Internship	3
ANIM 2095 Cooperative Education	3
BGC 2020 Digital Drawing	3
BGC 2030 Production PhotoShop	3
BGC 2040 Digital Printing Production	3
COMM ELECTIVE	3
ELEC 2020 Upgrading and Repairing PCs	3
ELEC 2025 Advanced Upgrading and Repairing PC's	3
CIS 2350 Macromedia Flash	3
FILM 2096 Special Topics	1-9
PHYS elective	3
THEA elective	3
ARTH or ARTS	3

**** See page 57 for information on course categories.***

CONSTRUCTION MANAGEMENT TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3340 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/programs/construction_management

- **Associate of Applied Science Degree in Construction Management Technology**
- **Certificate of Completion in Construction Estimating and Scheduling**

PROGRAM DESCRIPTION

In this program students acquire the knowledge, essential skills, and leadership abilities needed to contribute to the construction team in a supervisory position. An emphasis is placed in developing the skills necessary to use state of the art, industry standard technology and software. The program is accredited by the American Council for Construction Education (ACCE). Many of the program and general education courses are transferable to the University of New Mexico Construction Management Bachelor's degree.

SPECIAL REQUIREMENTS

Because of the level of experience for entering students varies, it may be necessary for new students to interview with the program chair to develop an appropriate schedule.

CAREER AND EDUCATIONAL OPPORTUNITIES

Students are prepared for entry level management and supervisory positions in the construction industry, including general contractor, estimator, project manager, inspector, office manager, crew leader, expeditor, superintendent, sales representative, and safety officer.

Transfer and articulation agreement information is available at cnm.edu/depts/academicaffairs/oeu/Articulation_Agreements/CNM_UNM_Construction_Management0001.pdf.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0940 Algebraic Problem Solving II or Elementary Algebra score of	81
RDG 0950 Reading and Critical Thinking	80
IT 1010 Introduction to Computers**	

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CM 1105 Construction Detailing	3**
CM 1110 Construction Materials and Techniques	3**
CM 1115 Commercial Construction Theory	3
ENG 1101 College Writing	3**
MATH 1310 Intermediate Algebra (or higher)	4
TERM 2	
CAD 1001 Basic CAD	1**
CM 1205 Computer Aided Construction Drafting/ Engineering	2**
CM 1210 Mechanical and Electrical Systems	3**
CM 1215 Construction Equipment and Methods	3
CM 1220 Introduction to Construction Project Management	3
CIS 1170 Excel Fundamentals	1
Or	
CIS 1171 Intermediate Excel	
Or	
CIS 1172 Advanced Excel	
Or	
CIS 1173 Excel Complete	3
TERM 3	
CM 1305 Construction Estimating	3**
ENG 1119 Technical Communications	3
Or	
ENG 2219 Technical Writing	
Or	
Approved Communications Elective	
PHYS 1010 Introduction to Physics or higher	3
ACCT 1111 Accounting IA	3
ESH 2006 Occupational Safety for Construction I	1
ESH 2009 Occupational Safety for Construction II	2
TERM 4	
CM 2105 Construction Scheduling	3**
CM 2115 Computer Estimating	3**
CM 2120 Statics	3
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCE ELECTIVE	3
TERM 5	
Technical Elective (SEE LIST)	3
CM 2205 Construction Surveying	3**
CM 2210 General Contractor Preparation	3
CM 2999 Construction Management Capstone Course	1
BA 2240 Business Law	3

Note: In accordance with a transfer agreement, courses marked with ** may be applied toward the Bachelor's of Science degree in Construction Management at the University of New Mexico.

Associates of Applied Science in Construction Management Technologies.....69-71

See page 57 for information on course categories.

TECHNICAL ELECTIVES

CM 2215 Estimating and Bidding 3
CM 2220 Computerized Project Management and Scheduling 3**
CM 2997 Special Problems 2-4
CM 2998 Internship 3
PM 2200 Budget and Resource Management 3
PM 2210 Contract Management 3
BA 2232 Supervision 3
COMM 2221 Interpersonal Communications Studies 3

APPROVED COMMUNICATIONS ELECTIVES

COMM 2225 Small Group Communications Studies 3
COMM 2232 Business and Professional Communications Studies 3
COMM 2240 Organizational Communications Studies 3

CONSTRUCTION ESTIMATING AND SCHEDULING CERTIFICATE

PROGRAM DESCRIPTION

In this program students acquire the basic knowledge and skills for construction estimating and scheduling. An emphasis is placed in developing the skills necessary to use state of the art, industry standard technology and software. Several of the program courses are transferable to the University of New Mexico Construction Management Bachelor of Science degree.

SPECIAL REQUIREMENTS

Because of the level of experience for entering students varies, it may be necessary for new students to interview with the program chair to develop an appropriate schedule.

CAREER AND EDUCATIONAL OPPORTUNITIES

Students are prepared for entry level positions as construction estimators and schedulers.

RECOMMENDED SEQUENCE OF COURSES

TERM 1

CM 1105 Construction Detailing 3**
CM 1110 Construction Materials and Techniques 3**
CAD 1001 Basic CAD 1**
CM 1205 Computer Aided Construction Drafting/ Engineering 2**
CM 1115 Commercial Construction Theory 3
CIS 1170 Excel Fundamentals 1
Or
CIS 1171 Intermediate Excel
Or
CIS 1172 Advanced Excel
Or
CIS 1175 Excel Complete 3

TERM 2

CM 1210 Mechanical and Electrical Systems 3**
CM 1305 Construction Estimating 3**
CM 1220 Introduction Construction Project Management 3

TERM 3

CM 2105 Construction Scheduling 3**
CM 2115 Computer Estimating 3**

Note: In accordance with a transfer agreement, courses marked with ** may be applied toward the Bachelor's of Science degree in Construction Management at the University of New Mexico.

Certificate in Construction Estimating and Scheduling 28-30

** See page 57 for information on course categories.*

CONSTRUCTION TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/programs/construction

- **Associate or Applied Science Degree in Construction Technology (Concentrations in General Construction or Electrical).**
- **Certificates of Achievement in Carpentry, Framing, Electrical Trades or Residential Wiring**

PROGRAM DESCRIPTION

The Construction Technology program offers a course of study concentrating in carpentry, residential wiring and electrical trades that is designed to provide students with the skills necessary to gain employment in a related construction or maintenance field. Carpentry classes meet in on-and off-campus labs designed for the practical study of residential and commercial construction, including blueprint reading, framing and the International Residential Code.

Residential Wiring students take theory and lab classes (on-and off-campus) in residential wiring, including electrical circuitry, job-site safety and the National Electrical Code (NEC), preparing students for the NM Residential Wireman's Certificate of Competency. The Electrical Trades program enable students to study commercial and industrial wiring methods and motor controls and helps prepare students for the State of New Mexico Journeyman Electrical Certificate (JE98).

CONSTRUCTION TECHNOLOGY

- Associate of Applied Science Degree in Construction Technology (Concentrations in General Construction or Electrical)
- Certificates of Completion in Carpentry, Residential Wiring or Electrical Trades
- Certificates of Achievement in Framing and Precision Woodworking
- The Construction Technology program offers courses of study concentrating in carpentry, residential wiring and electrical trades that are designed to provide students with the skills necessary to gain employment in a related construction or maintenance field.
- Carpentry classes meet in on- and off-campus labs designed for the practical study of residential and commercial construction, including blueprint reading, framing and the International Residential Code.
- Residential Wiring students take theory and lab classes (on- and off-campus) in residential wiring, including electrical circuitry, job-site safety and the National Electric Code (NEC), preparing students for the NM Residential Wireman's Certificate of Competence.
- The Electrical Trades program enables students to study commercial and industrial wiring methods and motor controls and helps prepare students for the State of New Mexico Journeyman Electrical Certificate (JE98).

SPECIAL REQUIREMENTS

Students are required to purchase textbooks, personal hand tools and personal protective equipment for those respective classes.

Electrical students must have normal color differentiation because as electricians, they work with identified colored wires requiring accurate connections. The moving and installation of electrical materials and equipment necessitate that the electrical worker be able to lift at least 50 pounds. Electrical workers may work in various internal and external environments and should be free of chronic respiratory diseases and allergies. Most employers require a valid driver's license and clean driving record.

Fees: Course fees are published in the *Schedule of Classes*. These fees cover the cost of tools required for lab activities.

CAREER AND EDUCATIONAL OPPORTUNITIES

The New Mexico Department of Workforce Solutions predicts a continued increase in the demand for construction workers. In recent years, over 90 percent of Carpentry, Residential Wiring, Electrical Trades and Construction Technology graduates have obtained employment.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

CONSTRUCTION TECHNOLOGY DEGREE *(CONCENTRATION IN GENERAL CONSTRUCTION)*

COURSE PREREQUISITE(S)

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

COURSE	ACCUPLACER SCORE OR EQUIV.
CERTIFICATE OF COMPLETION IN CARPENTRY	
MATH 0550 Basic Mathematics or Arithmetic score of	31
DEGREE	
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or score of	72
RDG 0950 Reading and Critical Thinking	80

**** See page 57 for information on course categories.***

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CARP 1005 Carpentry Blueprint Reading I	4
CARP 1320 Carpentry Fundamentals	3
Or	
CARP 1010 Introduction to Carpentry	
And	
CARP 1092 Construction Lab A	
CARP 1015 Structural Systems I	1
CARP 1020 Structural Systems II	1
CARP 1192 Construction Lab B	2
CARP 1292 Construction Lab C	2
ESH 2006 Occupational Safety for Construction	1

Certificate in Framing 14

TERM 2	
CARP 2005 Carpentry Blueprint Reading 11	4
CARP 2010 Exterior Finishes	1
CARP 2015 Interior Finishes I	1
CARP 2020 Interior Finishes II	1
CARP 2092 Construction Lab A	2
CARP 2192 Construction Lab B	2
CARP 2292 Construction Lab C	2

Certificate in Carpentry 27

TERM 3	
CM 1205 Computer Aided Construction Drafting/Engineering	3
CM 1110 Construction Materials and Techniques	3
ENG 1101 College Writing	3
IT 1010 Introduction to Computers	3
TERM 4	
CM 1305 Construction Estimating	3
MATH 1210 or higher	3-4
CM 1215 Construction Equipment and Methods	3
CM 1210 Mechanical Electrical Systems and Construction	3
CM 1115 Commercial Construction Theory	3
TERM 5	
COMM 1130 or higher	3
CM 2210 General Contractor Preparation	3
HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCES ELECTIVE	3
PHYS 1010 or higher	3
CARP 2999 Carpentry Capstone Course	1

Associate of Applied Science in Construction Technology (Concentration in General Construction) 66-68

CONSTRUCTION TECHNOLOGY DEGREE *(CONCENTRATION IN ELECTRICAL)*

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
CERTIFICATES	
MATH 0750 Basic College Mathematics or Arithmetic score of	57
RDG 0750 Reading Improvement	69
DEGREE	
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ELTR 1005 Electrical Theory I	4
ELTR 1010 Electrical Math I	3
ELTR 1092 Electrical DC/AC Lab	3
ELTR 1192 AC Circuitry, Motors and Generators	3
TERM 2	
ELTR 1205 Blueprint Reading I	3
ELTR 1210 Electrical Theory II	4
ELTR 1292 Residential Wiring Lab	3
ELTR 1392 Residential Electrical Services	3
TERM 3	
ELTR 2005 Electrical Theory III	4
ELTR 2010 Electrical Motor Control Theory	3
ELTR 2092 Industrial Motor Control Lab	3
ELTR 2192 Industrial Power Distribution	3
TERM 4	
COMM 1130 or higher	3
ELTR 2210 Programmable Logic Controller Theory	4
ELTR 2292 PLC Installation and Operation	3
PHYS 1010 Introduction to Physics or higher	3
TERM 5	
ELTR 2999 Electrical Trades Capstone Course	1
Math 1210 Methods of Problem Solving or Higher	3-4
ENG 1101 College Writing	3
IT 1010 Introduction to Computer Applications	3
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCES ELECTIVE	3

Associate of Applied Science in Construction Technology (Concentration in Electrical) 65-66

**** See page 57 for information on course categories.***

ELECTRICAL TRADES CERTIFICATE

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0750 Basic College Mathematics or Arithmetic score of	57
RDG 0750 Reading Improvement	69

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ELTR 1005 Electrical Theory I	4
ELTR 1010 Electrical Math I	3
ELTR 1092 Electrical DC/AC Lab	3
ELTR 1192 AC Circuitry, Motors and Generators	3
TERM 2	
ELTR 1205 Blueprint Reading I	3
ELTR 1210 Electrical Theory II	4
ELTR 1292 Residential Wiring Lab	3
ELTR 1392 Residential Electrical Services	3

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TERM 3	
ELTR 2005 Electrical Theory III	4
ELTR 2010 Electrical Motor Control Theory	3
ELTR 2092 Industrial Motor Control Lab	3
ELTR 2192 Industrial Power Distribution	3

Certificate in Electrical Trades 39

**** See page 57 for information on course categories.***

COSMETOLOGY

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-5020.

cnm.edu/depts/hwps/progs

■ Associate of Applied Science Degree in Cosmetology

PROGRAM DESCRIPTION

Students will study basic cosmetology skills designed to meet standards established by the New Mexico State Board of Barbers and Cosmetologists. The degree requires 70 credit hours in cosmetology and general education, which exceeds the minimum of 1,600 clock hours required by State Board. The Pivot Point International-based curriculum covers theory and lab in the following State Board requirements: sterilization, bacteriology, shampoo, rinses, scalp treatments, chemical rearranging (perms and relaxers), hairstyling, hair coloring and lightening, hair cutting, facials, pedicuring, salon business and retail sales. Students can earn licensure by the New Mexico Board of Barbers and Cosmetologists after passing the state exam.

SPECIAL REQUIREMENTS

Student equipment and textbooks are required to complete the cosmetology courses. See website (cnm.edu/depts/hwps/progs) for a list of specific items and estimated costs. In order to become registered with the New Mexico Board of Barbers and Cosmetologists, students must have a high school diploma or equivalent, provide a birth certificate and pay a registration fee (money order) by the 5th day of the term. Degree students must take COS 2505 and 2592 in their final term for assessment portfolio.

CAREER AND EDUCATIONAL OPPORTUNITIES

A career in cosmetology may offer opportunities in the areas of stylist, consultant, sales representative or owner. Jobs are available in private salons, franchise salons and day spas. Attaining the AAS Degree in Cosmetology exceeds the State of New Mexico's requirements for licensure and may offer advancement opportunities in management positions in industry or entrepreneurial situations of salon ownership.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving 1 or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED PROGRAM COURSES

COURSE	CREDIT HOURS
MATH 1210 Methods and Problem solving or higher (except Math 2110 or 2096)	3-4
IT 1010 Introduction to Computers	3
ENG 1101 College Writing	3
*FINE ARTS OR LANGUAGE ELECTIVE	3

SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1 (FALL OR SPRING ONLY)	
COS 1010 Orientation	2
COS 1071 Sterilization/ Sanitation Bacteriology	2
COS 1072 Shampoo/Rinses/Scalp Treatment	2
COS 1073 Chemical Rearranging	2
COS 1074 Cutting/Hairstyling	2
COS 1075 Hair Coloring	2
COS 1076 Manicuring/Pedicuring	2
TERM 2 (SPRING OR SUMMER ONLY)	
COS 1092 Hair Service Lab II	6
COS 1195 Skin/Nails Services II	5
COMM 2221 Interpersonal Communication Studies	3
TERM 3 (SUMMER OR FALL ONLY)	
COS 2093 Hair Services Lab III	6
COS 2492 Facials/Manicuring/Pedicuring Lab III	4
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCE ELECTIVE	3
TERM 4 (FALL OR SPRING ONLY)	
COS 2505 Salon Operation Theory	1
COS 2510 Advanced Salon Theory	2
COS 2511 State Laws/Regulations	1
COS 2592 Salon Operation Lab (Externship)	3
COS 2692 Advanced Salon Lab	5
COS 2693 Advanced Salon Lab II	4

Associate of Applied Science in Cosmetology 69-70

See page 57 for information on course categories.

COURT REPORTING

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-3894.

cnm.edu/depts/hwps/progs

- **Certificate of Completion in Court Reporting**
- **Certificate of Achievement in Stenotranscription**

PROGRAM DESCRIPTION

Students study machine shorthand theory and computer real-time technology with an emphasis on speed building and accuracy. Introduction to Court Reporting involves instruction on the theory principles used to write steno on the machine. Machine Shorthand II, III, IV, and V contain speed requirements that must be met in order to advance to the next level. These courses are open/entry, open/exit.

SPECIAL REQUIREMENTS

Students should purchase a basic manual steno machine before entering the program for use at home in order to practice and complete homework assignments. Computerized steno machines are provided for use in the classrooms and in Room 219 of Smith-Brasher Hall for students to use outside of their regular class time.

CAREER AND EDUCATIONAL OPPORTUNITIES

One hundred percent of court reporting graduates who have passed the New Mexico State Exam are employed as court reporters. Other graduates who have moved to states not requiring a state exam are also employed as court reporters.

Graduates may apply for a provisional license with the New Mexico CCR Board. This would allow the graduate to be employed as a court reporter for up to two years while attempting to pass the state exam.

Employment opportunities include working as an official reporter in court, a freelance reporter in a deposition firm, a captioner for television stations, a CART (Communication Access Realtime Translation) writer for the hearing impaired, medical transcriptionist and hearing reporter.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

COURT REPORTING CERTIFICATE

SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CR 1111 Introduction to Court Reporting	4
TERM 2	
CR 1123 Punctuation for Court Reporters	3
CR 1131 Machine Shorthand II	3
TERM 3	
CR 1211 Machine Shorthand III	3
CR 2240 Legal Terminology	3
TERM 4	
CR 1212 Machine Shorthand IV	3
CR 2250 Computer-Aided Transcription	3
HIT 1020 Medical Terminology and Anatomy	3
TERM 5	
CR 1213 Machine Shorthand V	3
CR 2098 Internship	3
CR 2260 Court Reporting Procedures	3

Certificate in Court Reporting 34

STENOTRANSCRIPTION CERTIFICATE

Students receive instruction on the functions and applications of stenotranscription software. This software allows students to transcribe tapes from the steno machine to produce a document. Students are graded on the production of medical and legal documents from tapes or CDs.

Employment opportunities can be found in medical offices, legal offices and in courts where a tape monitor is used instead of a court reporter, insurance company statements and police departments.

RECOMMENDED SEQUENCE OF COURSES

TERM 1	
CR 1111 Introduction to Court Reporting	4
TERM 2	
CR 1131 Machine Shorthand II	3
TERM 3	
CR 2251 Stenotranscription	3

Certificate in Stenotranscription 10

See page 57 for information on course categories.

CRIMINAL JUSTICE

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-4201.

cnm.edu/depts/hwps/progs

■ Associate of Applied Science Degree in Criminal Justice

PROGRAM DESCRIPTION

The number of careers in the field of Criminal Justice continues to expand. This includes careers in both the public and private sectors. These careers include Law Enforcement, Adult Corrections, Juvenile Correction, Adult and Juvenile Probation and Parole, Private Investigations, and Security. Security careers include private and personal security, commercial security, industrial security, public security, retail, information and Homeland Security. The U.S. Department of Labor projects continued job growth in all of these fields. The Associate of Applied Science degree in Criminal Justice provides the education needed for entry level employment in the career field. It may also help the student achieve promotion after gaining employment.

The program offers a varied schedule of courses to meet the students' needs, including traditional classes at varied times at the different campuses, on-line courses, an investigations lab, a computer lab with interactive learning programs, and intern programs with local agencies. This program may begin with dual enrollment for high school students via the Pathways programs. Students are instructed by faculty who have vast experience in all aspects of criminal justice and are readily available to help students. Students may tailor their studies to concentrate in the area of their interest. The program also prepares the students in critical thinking and work-place skills employers demand. The program will also provide students with a sense of professionalism and community service necessary for a career in Criminal Justice.

SPECIAL REQUIREMENTS

Students are required to purchase the textbooks required for all courses.

Students with a criminal background may have limited employment opportunities in the Criminal Justice career field. Students should contact employing agencies or firms for hiring and employment practices. Contact the School of HWPS, (505) 224-4111, for more information. All HWPS career and technical programs required for graduation must be taken for a traditional grade of A, B, or C and completed with that grade. For courses offered only for Credit/No Credit, a grade of CR must be earned. Many agencies require applicants to be in good health and physical conditioning.

CAREER AND EDUCATIONAL OPPORTUNITIES

Many careers at the state and Federal level require a minimum of a 4 year Bachelor's Degree. The Criminal Justice courses from CNM are transferable to the 4 year colleges and universities in New Mexico which have a CJ degree. A copy of the transfer matrix is located on the New Mexico Department of Higher Education home page. The CNM Criminal Justice program also has several articulation agreements with state colleges and universities where our graduates may transfer the degree over as the first two years of study for a 4 year degree. Students who graduate from an accredited state law enforcement or corrections academy may receive up to 22 hours of course credit in the core curriculum.

Transfer and articulation agreement information is available at cnm.edu/transferout.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

**** See page 57 for information on course categories.***

SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CJ 1001 Introduction to Criminal Justice	3
CJ 1002 Criminal Law	3
CJ 1007 Criminal Procedure	3
IT 1010 Introduction to Computers	3
ENG 1101 College Writing or higher	3
SOC 1101 Introduction to Sociology	3
TERM 2	
CJ 1502 Juvenile Law and Procedure	3
CJ 1509 Security Services	3
Or	
CJ 1580 Patrol Practices	
CJ 1518 Report Writing	3
FITT 1792 Personal Fitness	1
Or	
FITT 2093 Extreme Conditioning	
MATH 1210 Methods of Problem Solving or higher (except MATH 2110)	3 or 4
PSY 1105 Introduction to Psychology	3
TERM 3	
Criminal Justice Elective (SEE LIST)**	6
SOC 2215 Criminology	3
COMM 2221 Interpersonal Communications	3
Approved General Elective (SEE LIST)***	3
TERM 4	
CJ 2505 Community-Oriented Policing	3
CJ 2511 Correctional Services	3
CJ 2515/2692 Criminal Investigations/Laboratory	3
Criminal Justice Elective (SEE LIST)**	3
Approved General Elective (SEE LIST)***	3

Associates of Applied Science in Criminal Justice.....64-65

**APPROVED CRIMINAL JUSTICE ELECTIVES (CHOOSE 9 CREDIT HOURS)

CJ 2005 Probation and Patrol	3
CJ 2006 Rules of Criminal Evidence	3
CJ 2007 White Collar Crimes	3
CJ 2008 Organized Crime and Terrorism	3
CJ 2009 Management for Criminal Justice Professionals	3
CJ 2011 Public Policies and Strategies	3
CJ 2096 Special Topics	variable
CJ 2697 Independent Study	variable
CJ 2698 Internship†	3
CJ 2695 Cooperative Education	variable

† Students may receive credit for one specialty internship as an elective in the program.

***APPROVED GENERAL ELECTIVES (CHOOSE 6 CREDIT HOURS)

CSE 1101 College Success or higher	1
EMS 1010 Basic Emergency Medical Technician Skills	6
PL 1110 Introduction to Paralegal Studies	3
PL 1120 American Law and Ethics	3
PL 2130 Criminal Litigation	3
PL 2150 Evidence	3
PL 2440 Criminal Litigation II	3
Any CJ Course	
Any ESH Course	
Any FS Course	

*Arts and Science Elective: Any college level courses in the following areas of study: Biological/Physical Science, Mathematics, English/Communications, Foreign Language, Humanities, Fine Arts, Social/Behavioral Science.

See page 57 for information on course categories.

CULINARY ARTS

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

■ Associate of Applied Science Degree in Culinary Arts

PROGRAM DESCRIPTION

The mission of CNM's Culinary Arts program is to provide students the opportunity to learn innovative trends in the hospitality/food service industry, while providing an atmosphere for learning that encourages student growth, teamwork and diversity that result in life-long learning and employment in the hospitality/food service industry.

Culinary Arts is an excellent field for individuals seeking a challenging career in a rapidly growing industry. The associate degree is a six term, 73-77 credit-hour program. Students study baking and pastry, professional cooking, safety, sanitation, nutrition, equipment use, human relations, supervisory skills, dining room skills, business practices and other general coursework. Classes include classroom and lab time.

The American Culinary Federation Foundation's Education Accrediting Commission nationally accredits this program. Upon completion of the associate of applied science degree program, students are eligible to become certified culinarians and certified pastry cooks through the American Culinary Foundation (ACF). ACF accreditation assures that the program is meeting at least a minimum of standards and competencies set for faculty, curriculum and student services. For more information about ACF go to acfchefs.org. Students may participate in culinary competitions with ACF, SkillsUSA and other extracurricular activities.

SPECIAL REQUIREMENTS

Students entering CULN 1111, 1130 and subsequent CULN courses are required to purchase four sets of chef's uniforms, dining room service attire, textbooks and tools. Students should be able to lift 30 pounds and must present a physician's certificate to CNM at the start of classes stating that the student is free from tuberculosis in a transmissible form. Students must be able to stand for the duration of lab classes.

CAREER AND EDUCATIONAL OPPORTUNITIES

Jobs are available in restaurants, casinos, resorts, schools, retirement homes, hospitals, cruise ships, catering companies, convention centers and other areas. Types of employment range from business owners, to bakers or cooks, managers to chefs and include employment opportunities from the fast food industry and fine dining establishments to casinos and resorts. Students completing the degree may also receive certificates in Food Service Management, Professional Cooking, and Baking. Many classes will transfer to four year institutions. Students interested in continuing for a bachelor degree should meet with the program chair for more information.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

Certificates of Completion available in Baking, see page 83; Professional Cooking, see page 177; Food Service Management, see page 133.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CULN 1101 Introduction to Culinary Arts	1
Or	
HT 1101 Introduction to Tourism	3
CULN 1102 Applied Culinary Math	1
CULN 1103 Safety and Sanitation Principles	3
IT 1010 Introduction to Computers	3
ENG 1101 College Writing	3
TERM 2	
CULN 1111 Cooking Fundamentals I	5
CULN 1112 Cooking Fundamentals II	5
NUTR 1010 Personal and Practical Nutrition	3
TERM 3	
CULN 2211 Global Cuisines I	5
CULN 2212 Global Cuisines II	5
HT 1164 Food and Beverage Service	3
TERM 4	
CULN 1130 Introduction to Baking Fundamentals	5
CULN 1132 Applied Baking Principles	5
HT 2201 Hospitality Operations Management	3
TERM 5	
CULN 2230 Baking and Pastry Fundamentals	5
CULN 2232 Advanced Baking and Pastry Techniques	5
HT 2215 Purchasing and Cost Controls	3
TERM 6	
COMM 1130 Public Speaking or higher	3
CULN 2999 Capstone	1
Math 1210 Methods of Problem Solving or higher	3-4
(Math 1320 recommended for transfer)	
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCE OR FINE ARTS OR FOREIGN LANGUAGE ELECTIVE	3-4

Associate of Applied Science in Culinary Arts 73-77

Note: Students may elect to take baking labs (CULN 1130-1132 and 2230-2232) during terms two and three and cooking labs (CULN 1111-1112 and 2211-2212) during terms four and five rather than the sequence outlined above.

See page 57 for information on course categories.

DENTAL ASSISTING

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-5247.

cnm.edu/depts/hwps/progs

■ **Certificate of Completion in Dental Assisting**

PROGRAM DESCRIPTION

Dental Assisting is a three-term program accredited by the American Dental Association which provides individuals the opportunity to attain the knowledge and skills necessary to work in a dental clinic or dental office. Upon completion of the program, graduates are prepared to provide basic support under the supervision of a licensed dentist or dental hygienist. Instruction occurs in classrooms, laboratories and dental clinics. It also prepares graduates for state certifications in dental radiographs, pit and fissure sealants, coronal polishing, and topical fluoride application. This program also prepares students for their Dental Assisting National Board (DANB) Exam.

SPECIAL REQUIREMENTS

- Students must be 18 years of age prior to entering DA 1175 due to federal radiation guidelines.
- Term 1 begins in the fall term only
- Criminal Background/ Drug Screen: Students may be required to undergo a routine drug screening and a state and federal criminal background check with fingerprints prior to starting the program or prior to beginning their clinical experiences. For information on the criminal background check, please note the complete description on page 56 under the School of Health, Wellness & Public Safety description. Students with a disqualifying conviction will not be allowed to start or remain in the program; additionally any student found to have a disqualifying conviction will not be allowed to register for any Allied Health or nursing programs.
- Students are required to have a physical exam, current professional BLS CPR certification, PPD and current immunizations (including MMR, DTP, PPD, and hepatitis A and B) Students interested in certain School of Health, Wellness & Public Safety programs must be in good physical and psychological health. Some programs require documentation of a recent health screening from a licensed health care provider confirming the ability to safely perform program specific activities and lift a minimum of 50 pounds. Reasonable accommodations are made for those students with disabilities. However, some disabilities may prohibit students from completing program specific competencies or gaining employment. Students with a disability that may interfere with completing program competencies, which may include providing safe patient care, are advised to contact the HWPS School Offices at (505) 224-4111 for more information.
- A program fee is charged in DA 1172 to cover the cost of a lab coat, two sets of scrubs, DA pin, a pair of safety goggles, nametags, criminal background check if applicable, drug screen and health test in case of a needle stick or other exposure to bodily fluids. A program fee is charged in DA 1108/1175, 1508/1575, 2010/2080 for dosimeter badges. Program fees are published in the *Schedule of Classes*. In addition, students must purchase their own textbooks.

CAREER AND EDUCATIONAL OPPORTUNITIES

There is a demand for well-trained dental assistants in the metropolitan area as well as in rural areas across the state. Dental assistants work with dentists or a dental hygienist to promote dental health. In addition, they might find work in private offices, dental clinics, dental supply companies, dental laboratories, hospitals, mobile dental clinics or with school programs.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

SPECIAL NOTES

Students should have reliable transportation while in the program. Clinical assignments are given to students requiring travel throughout the metropolitan area.

COURSE PREREQUISITE(S)

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0750 Basic College Mathematics or Arithmetic score of	57
RDG 0950 Reading and Critical Thinking	80

REQUIRED COURSES

COURSE	CREDIT HOURS
DA 1010 Dental Science	3
HLTH 1001 Clinical Prep	1
ENG 1101 College Analytic Writing or ENG 1102	3

**** See page 57 for information on course categories.***

REQUIRED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1 (FALL ONLY)	
COMM 2221 Interpersonal Communication	3
DA 1104 Tooth Morphology, Histology and Recordings	3
DA 1108/1175 Dental Radiology I	3
DA 1110/1172 Dental Materials and Application	3
DA 1120/1170 Chairside Procedures	3
TERM 2 (SPRING ONLY)	
DA 1510/1580 Clinical Application I	6
DA 1512 Dental Science II	3
DA 1520/1570 Chairside Procedures II	3
DA 1508/ 1575 Dental Radiology II	3
TERM 3 (SUMMER ONLY)	
DA 2410/2470 Dental Practice Management and Patient Care	2
DA 2014 Dental Specialties	3
DA 2010/2080 Clinical Application II	5

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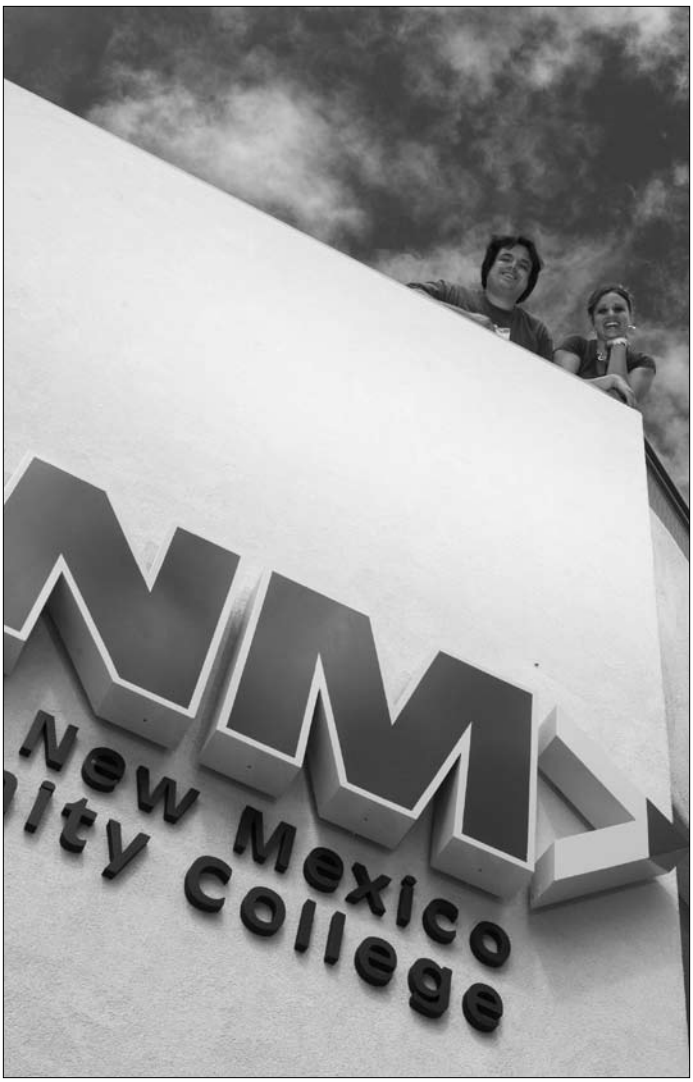


** See page 57 for information on course categories.*

DEVELOPMENTAL EDUCATION

School of Adult & General Education

CONTACT INFORMATION

Please call (505) 224-3939 for information on Developmental Education.

DESCRIPTION

The Developmental Education (DE) program offers courses to help students prepare for college in a variety of disciplines or areas: Accounting, Biology, Chemistry, College Success Experience (CSE), English, English for Speakers of Other Languages (ESOL), Health, Information Technology, Math, and Reading. Courses are numbered 0100 – 0999. Most Developmental Education classes include theory and lab hours.

Developmental courses are graded CR (credit) and NC (no credit) to help students build their skills without the pressure of the traditional grading system (A, B, C, D, F). While credit from courses numbered below 1000 is not transferable to other degree-granting institutions, these courses typically help students meet admissions requirements and program prerequisites. Eligible students may receive financial aid for up to 30 credit hours in Developmental Education courses.

Interested students should contact the School of Adult & General Education (SAGE) at (505) 224-3939 for more information.

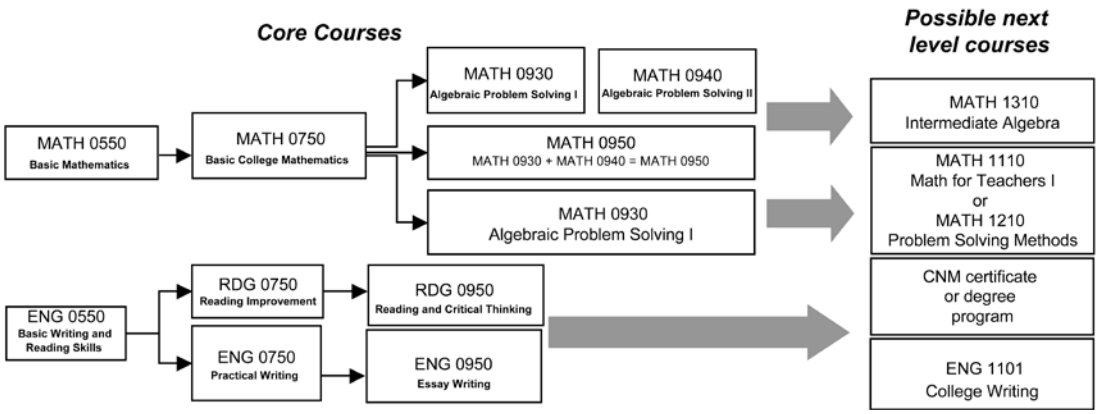
SPECIAL REQUIREMENTS

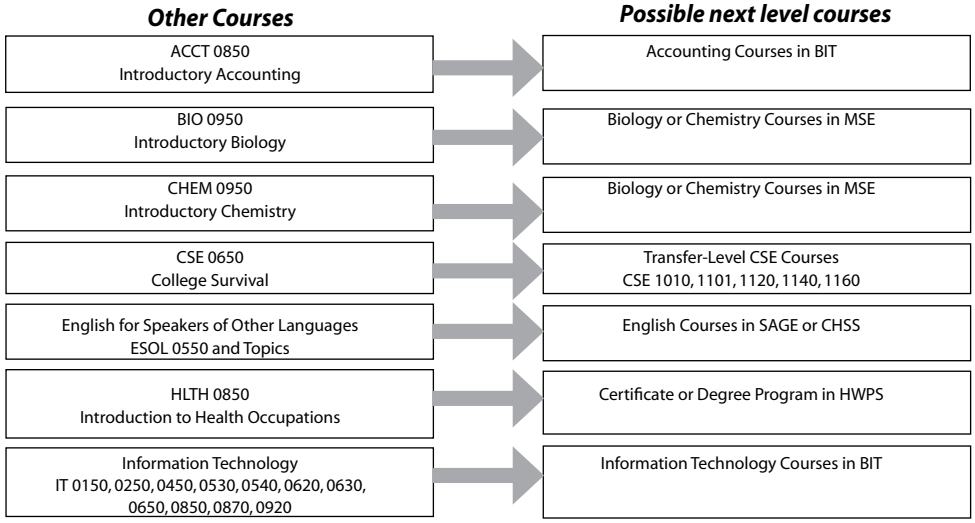
Students registering for most Developmental Education classes need to take the Accuplacer test to determine the appropriate course level. Students taking Developmental Education classes are eligible for financial aid and may take the classes free of charge for up to 30 credit hours. Most courses require students to purchase textbooks and supplies.

CAREER AND EDUCATIONAL OPPORTUNITIES

Developmental Education courses prepare students for arts and sciences or career/technical majors, for self-improvement or for career enhancement.

DEVELOPMENTAL EDUCATION COURSE OPTIONS *Course placement and order based on Accuplacer test results.*





See page 57 for information on course categories.

DIAGNOSTIC MEDICAL SONOGRAPHY

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-5069.

cnm.edu/depts/hwps/progs

■ **Associate of Science Degree in Diagnostic Medical Sonography**

PROGRAM DESCRIPTION

Diagnostic Medical Sonography (DMS) is a four-term program during which the student will attain the knowledge, skills and professional behaviors necessary for employment as a Diagnostic Medical Sonographer. A sonographer is a health care professional who uses high-frequency sound waves as a diagnostic tool to view the human body in order to aid the physician in the diagnosis of illness. Students study the use of sound waves to generate images of various parts of the human body. The successful graduate will have the ability to conceptualize in 3-dimensional form. The program provides classroom didactic instruction, hands-on scanning, laboratory instruction and clinical experiences in a variety of medical facilities and outpatient diagnostic centers. Students are prepared to sit for the national board exams administered by the American Registry of Diagnostic Medical Sonographers in the specialty areas of "Abdomen and Superficial Structures" and"Obstetrics and Gynecology". Successful completion of this exam results in attaining the RDMS (Registered Diagnostic Medical Sonographer) credential. The program is fully accredited by CAAHEP (Commission on Accreditation of Allied Health Education Programs).

SPECIAL REQUIREMENTS

Criminal Background: Students are required to undergo a state and federal criminal background check with fingerprints prior to starting the program or prior to beginning their clinical experiences. Students with a disqualifying conviction will not be allowed to start or remain in the program; additionally any student found to have a disqualifying conviction will not be allowed to register for any Allied Health or Nursing programs.

Drug Screen: Students are required to undergo a routine drug screening prior to starting the program. Students with a positive drug screen will not be allowed to enter the program.

Physical Requirements: Students interested in the DMS program, must be in good physical and psychological health. The DMS program requires documentation of a recent health screening from a licensed health care provider confirming the ability to safely perform program specific activities and lift a minimum of 50 pounds. Reasonable accommodations are made for those students with disabilities. However, some disabilities may prohibit students from completing program specific competencies or gaining employment. Students with a disability that may interfere with completing program competencies, which may include providing safe patient care, are advised to contact the program director at (505) 224-5069 for more information. Prior to enrollment in DMS clinical courses, students are required to provide proof of a recent physical exam, PPD and current immunizations (including tetanus, rubella, rubeola and hepatitis B).

Fees: Program fees are published in the *Schedule of Classes*. The program fee covers the cost of scrubs (two sets), nametags, hospital parking permits and preventive lab tests in case of a needle stick or other exposure to bodily fluids.

Petitioning: The petition process is subject to change. Students should plan to attend an information session to remain current. Information sessions covering the petitioning process, program requirements and career opportunities are scheduled regularly. Dates and times for Program Information Sessions can be obtained by calling the School of Health, Wellness & Public Safety, (505) 224-4111 or on the CNM website: cnm.edu/depts/hwps/progs/allied/dms/index.php

Selection of students is based on a petition process. In order to petition, students must:

- Complete and pass the required program courses with a grade of "C" or better
- Present proof of a GPA of 2.5 or greater in the required courses
- Complete the WorkKeys assessment tests in required program courses (Reading for Information, Locating Information and Applied Mathematics) with a score of five or better

Consideration is given to prospective DMS students in the following order:

1 Students who have a GPA in the Required Courses of 3.0 and higher and have petitioned previously
2 New petitioners who have a GPA in the Required Courses of 3.0 and higher
3 Students who have petitioned previously and have a GPA of 2.5-3.0
4 New petitioners who have a GPA of 2.5-3.0

Each group of students is sorted by date on which the student declared DMS as their major at CNM. Sixteen students will be selected to begin the program each January. Five Alternates are also notified in the event a selected student is unable to begin.

If a student is "Selected" and unable to begin the Program as planned, he/she may defer for one year and begin the Program the following January.

CAREER AND EDUCATIONAL OPPORTUNITIES

There is currently a nationwide shortage of registered sonographers. Graduates will be employed as sonographers in hospitals, physician's offices and private sonography practices.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

**** See page 57 for information on course categories.***

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 1310 Intermediate Algebra or College Level Math score of	60
RDG 0950 Reading and Critical Thinking	80
BIO 1410 Biology for Health Science	
BIO 1492 Biology for Health Science Laboratory	
CHEM 1410/1492 Introduction to Chemistry/Lab	
Or	
CHEM 1710/1792 General Chemistry/Lab	

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED PROGRAM COURSES

COURSE	CREDIT HOURS
BIO 2210/2292 Human Anatomy and Physiology I/Lab	4
BIO 2310/2392 Human Anatomy and Physiology II/Lab	4
COMM 2221 Interpersonal Communication Skills	3
ENG 1101 College Writing	3
Or	
ENG 1102 Analytical Writing	
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCE ELECTIVE	3
MATH 1315 College Algebra	3
PHYS 1510/1592 Physics I/Laboratory	5

REQUIRED COURSES

COURSE	CREDIT HOURS
TERM 1 (SPRING)	
DMS 1010 Introduction to Diagnostic Medical Sonography	1
DMS 1112 Sonographic Anatomy	2
DMS 1192 Sonographic Anatomy Lab	1
DMS 1085 Sonographic Concepts	3
DMS 1093 Sonographic Concepts Lab	1
DMS 1075 Introduction to Sonographic Physics	2
HLTH 1001 Clinical Preparation	1
TERM 2 (SUMMER)	
DMS 1503 DMS Pathophysiology I	3
DMS 1511 General Sonography I	2
DMS 1590 Clinical Sonography I	4
DMS 1575 Sonographic Physics I	2
TERM 3 (FALL)	
DMS 2003 DMS Pathophysiology II	3
DMS 2092 Sonography II	2
DMS 2090 Clinical Sonography II	5
DMS 2075 Sonographic Physics II	2
TERM 4 (SPRING)	
DMS 2590 General Sonography Internship	10
DMS 2592 Clinical Seminar	1

Associate of Science in Diagnostic Medical Sonography 70

**** See page 57 for information on course categories.***

DIESEL EQUIPMENT TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

■ **Certificate of Completion in Diesel Equipment Technology**

PROGRAM DESCRIPTION

Students study a variety of vehicle systems in classes combining theory and laboratory exercises that prepare graduates to work on a variety of medium- and heavy-duty trucks and equipment. The program provides extensive hands-on training opportunities to ensure competency at program completion.

SPECIAL REQUIREMENTS

Students are required to purchase textbooks, tools and personal safety equipment. One must not be allergic to fuels, oils and chemicals used in industry. Most employers require a valid driver's license and a good driving record.

CAREER AND EDUCATIONAL OPPORTUNITIES

Career opportunities exist in government, independent repair facilities and dealerships for all aspects of the industry including line technician, field service technician, service writer, service manager, warranty and parts and overhaul specialist. The national shortage of technicians in the diesel truck and heavy equipment fields ensures plentiful employment opportunities with excellent pay and benefits.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
RDG 0750 Reading Improvement	69
MATH 0750 Basic College Mathematics or Arithmetic score of	57

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1 (FALL ONLY)	
DETC 1110 Introduction to Diesel Technology	4
DETC 1120 Heavy Duty Brake Systems	4
DETC 1130 Heavy Duty Suspension and Steering	4
DETC 1150 Diesel Equipment Electrical Systems	4
TERM 2	
DETC 1210 Heavy Duty Engine Repair	4
DETC 1220 Automatic Transmissions and Hydraulics	4
DETC 1230 Medium/Heavy Duty Air Conditioning and Heating	3
DETC 1240 Diesel Equipment Electronic Systems	4
TERM 3	
DETC 1140 Manual Shift Transmissions and Axles	4
DETC 2110 Preventative Maintenance	4
DETC 2120 Diesel Engine Performance	4

Certificate in Diesel Equipment Technology 43

**** See page 57 for information on course categories.***

EARLY CHILDHOOD MULTICULTURAL EDUCATION

School of Communication, Humanities & Social Sciences

CONTACT INFORMATION

Program Director: (505) 224-3588, Program Outreach Specialist: (505) 224-3607

cnm.edu/teachered

- **Associate of Arts Degree in Early Childhood Multicultural Education (Concentrations in Birth-3rd Grade Teacher, Early Childhood Program Administration, and Family, Infant, and Toddler)**
- **Certificate of Achievement in Child Development**

PROGRAM DESCRIPTION

This degree is designed for students who are in or would like to work in the field of early childhood education. Students interested in this degree should choose their concentration based upon their career and educational goals. Students may wish to complete more than one degree concentration.

- Birth – 3rd Grade Teacher: This concentration is designed for students who are or would like to work as early childhood teachers in the private sector or teachers aides in an elementary school. Students interested in becoming a licensed PreK-3rd grade teacher in an elementary school can do so upon completion of a bachelors degree in Early Childhood Education. This concentration is fully transferable to any college or university in New Mexico with an early childhood associate's or bachelors degree.
- Early Childhood Program Administration: This concentration is designed for students who are or would like to work as administrators of early education programs. Student completing this degree concentration are eligible to apply for an early childhood administrative specialist certificate with the New Mexico Office of Child Development.
- Family, Infant, and Toddler: This concentration is designed for students who are or would like to work in the early intervention or home visiting field . Early interventionists work with families with children birth-three that have developmental delays or are at risk for developmental delay. Early intervention services are provided in multiple setting to include the home, child care center, or other community setting. Early childhood home visitors work directly with families in the home to promote the healthy and safe growth and development of infants and children in at-risk families. Students completing this degree concentration are eligible to be certified as a Developmental Specialist I Advanced by the New Mexico Department of Health Developmental Disabilities Support Division.
- Child Development Certificate: This certificate provides students with the coursework required for the New Mexico Child Development Certificate created to meet the entry-level professional requirements for teachers who are already working in a classroom setting with preschool children. It is particularly designed to assist Head Start and Early Head Start programs meet the interim staff qualification requirements of the Head Start Reauthorization.

SPECIAL REQUIREMENTS

Students may be required to undergo a TB test and a criminal background check prior to beginning their field/practicum experience. All courses required for transfer must be taken for a traditional grade of A, B, C, etc. For courses offered only for credit/no credit, a grade of credit (CR) must be earned.

CAREER AND EDUCATIONAL OPPORTUNITIES

Students from all concentrations are employed almost immediately upon graduation. There is tremendous need for well-qualified early care and education workers in some of the following areas: child care, educational assistants, head start and early care teachers, early care administration, early intervention and home visiting. Work is available with programs such as Head Start, Even Start, private and public child-care facilities and preschools serving the needs of children birth to age five. Private and public schools also employ students as educational assistants.

Students completing the associate of arts in early childhood multicultural education with a concentration in Birth-3rd Grade Teacher can currently continue to a bachelor's degree in early childhood education to become a licensed PreK-3rd grade teacher. Development of majors in early childhood administration and family, infant, toddler studies for the bachelor's degree in early childhood education is pending at this time.

The New Mexico Child Development Certificate certifies individuals to become an early childhood teacher in private, accredited child care centers.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

SPECIAL NOTES

Students pursuing the New Mexico Child Development Certificate must be currently working in a child-care setting. In order to qualify for the New Mexico Child Development Certificate, an applicant must request a Certificate Packet from the NewMexicoKids Network office (505) 254-9922 ext. 108 which includes verification of successful completion of the certificate coursework, professional resource file, family opinion questionnaire, observation and oral interview. A completed packet must be submitted to the New Mexico Office of Child Development.

Students completing all of the ECME coursework within any degree concentration are eligible to apply for the One Year Vocational Certificate issued by the New Mexico Office of Child Development. For more information, contact the Office of Child Development at (505) 827-7946.

Student completing the Family, Infant and Toddler degree concentration may apply for initial certification as a Developmental Specialist I Advanced at health.state.nm.us/ddsd/fit.

See page 57 for information on course categories.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
RGD 0950 Reading and Critical Thinking	80
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ECME 1102 Professionalism	2
ECME 1104 Child Growth, Development and Learning	3
ECME 1108 Health, Safety, and Nutrition	2
ENG 1101 College Writing	3
MATH 1110 Mathematics for Elementary and Middle School Teachers I or higher	3
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3
TERM 2	
COMM 1130 or COMM 2221 or COMM 2270 (COMM 2270 Recommended)	3
ENG 1102 Analytic and Argumentative Writing	3
NS 1010 or BIOLOGICAL/PHYSICAL SCIENCE ELECTIVE (INCLUDING LAB, SEE LIST)	4
ECME 2204 Assessment of Children and Evaluation of Programs	3
ECME 2206 Family and Community Collaboration I	3
TERM 3	
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3
NS 1015 or 2010 or BIOLOGICAL/PHYSICAL SCIENCE ELECTIVE (INCLUDING LAB, SEE LIST)	4
EDUC 2265 Computers in Schools	3
FINE ARTS ELECTIVE (SEE LIST)	3
ECME 2214 Guiding Young Children	3
TERM 4 AND 5	
Choose one concentration for the degree	

BIRTH-3RD GRADE TEACHER CONCENTRATION

ECME 2201 Introduction to Reading and Literacy Development	3
ECME 1109 Curriculum Development and Implementation I (FALL)	4
ECME 1190 Curriculum Development and Implementation I Practicum (FALL)	2
ECME 2212 Curriculum Development and Implementation II (SPRING)	3
ECME 2290 Curriculum Development and Implementation II Practicum (SPRING)	2
HIST 1101 or 1102 or 1161 or 1162 or 2260	3

EARLY CHILDHOOD PROGRAM ADMINISTRATION CONCENTRATION

ECME 2220 Program Management (Previously CDV 2207)	3
ECME 2222 Effective Program Development for Diverse Learners and their Families (SPRING)	4
ECME 2490 Effective Program Development for Diverse Learners and Families Practicum (SPRING)	2
ECME 2224 Professional Relationships (FALL)	3
ECME 2590 Professional Relationships Practicum (FALL)	2
HUMANITIES ELECTIVE (SEE LIST)	3

FAMILY, INFANT AND TODDLER CONCENTRATION

ECME 2230 Infant-Toddler Growth, Development and Learning (FALL)	3
ECME 2690 Infant-Toddler Growth, Development and Learning Practicum (FALL)	2
ECME 2232 Building Relationships with Infants and Families (SPRING)	3
ECME 2790 Building Relationships with Infants and Families Practicum (SPRING)	2
ECME 2234 Caregiving for Infants and Toddlers	3
HUMANITIES ELECTIVE (SEE LIST)	3

Associate of Arts in Early Childhood Multicultural Education 64

CHILD DEVELOPMENT CERTIFICATE

ECME 1104 Child Growth, Development and Learning	3
ECME 1108 Health, Safety and Nutrition	2
ECME 2204 Assessment of Children and Evaluation of Programs	3
ECME 2206 Family and Community Collaboration I	3

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APPROVED ELECTIVES

BIOLOGICAL/PHYSICAL SCIENCE ELECTIVES (SELECT FROM AT LEAST TWO DIFFERENT SUBJECT AREAS)

ASTR 1110/1192; BIO 1010/1092 or 1110/1192; CHEM 1410/1492 or 1710/1792; PHYS 1510/1592

FINE ARTS ELECTIVES (SELECT FROM AT LEAST TWO DIFFERENT SUBJECT AREAS)

ARTH 1101, 2201, 2202, 2250, 2251, MUS 1139, 1140, THEA 1122

HUMANITIES ELECTIVES

Any HIST, HUM 1111, 1121, ENG 1150, 2206, 2207, 2208, 2209, 2210, 2250, 2251, 2252, 2262, 2263, 2270, 2285, 2287, 2288, PHIL 1102, 1110, 1156, 2245, 2250, 2257, RGLN 1107, 2263

SOCIAL/BEHAVIORAL SCIENCE ELECTIVES (SELECT FROM AT LEAST TWO DIFFERENT SUBJECT AREAS)

ANTH 1101, 1130, ECON 2200, 2201, PSCI 1110, 2200, 2220, 2240, PSY 1105, SOC 1101

**** See page 57 for information on course categories.***

EDUCATIONAL PARAPROFESSIONAL

School of Communication, Humanities & Social Sciences

CONTACT INFORMATION

Program Director: (505) 224-3588, Program Outreach Specialist: (505) 224-3607

cnm.edu/teachered

■ **Certificate of Achievement in Educational Paraprofessional**

PROGRAM DESCRIPTION

The Educational Paraprofessional Certificate Program is intended to provide students, who are currently working as a K-12 paraprofessional (educational assistant) or interested in becoming a paraprofessional, with the knowledge and skills needed for their work. Educational Assistants in APS may be promoted on the salary scale with completion of coursework and certificate, and may also be reimbursed for tuition and fees.

This certificate is not intended for those working in early childhood settings. Students interested in early childhood certification should start with the Child Development Certificate (see page 115).

This certificate is not intended to fully transfer into an associate of arts degree in teacher education. Students interested in earning an associate of arts degree in teacher education (see page 186) should contact an academic advisor.

CAREER AND EDUCATIONAL OPPORTUNITIES

The need for paraprofessional educators continues to increase both in New Mexico and across the nation. There is particular growth in the need for paraprofessional educators to work with special needs students and with students for whom English is a second language. Albuquerque Public Schools employs over 2000 paraprofessionals.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
RGD 0950 Reading and Critical Thinking	80
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I score of	72

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
ELEM 1189 The Paraprofessional in the Classroom	2
EDUC 2207 or EDUC 2204	3
EDUC 1102 or (SPED 2201 and 2290)	4-5
EDUC 2203 or EDUC 2205	3
Approved Electives (SEE LIST)	13-15

Certificate in Educational Paraprofessional 25-28

APPROVED ELECTIVES

Any ECME, EDUC, ELEM, SPED listed before and not used above
Any CDV course listed below
SPAN 1101 or higher

Approved electives recommended for working with elementary students

CDV 1103 Preschool Growth and Development	3
CDV 1107 Art and Play	3
CDV 2201 Middle Childhood Growth and Development	3
ECME 1104 Child Growth, Development, and Learning	3
ECME 1108 Health, Safety and Nutrition	2
ECME 2201 Introduction to Reading and Literacy Development	3
ECME 2204 Assessment of Children and Evaluation of Programs	3
ECME 2206 Family and Community Collaboration I	3
ECME 2214 Guiding Young Children	3
EDUC 2265 or IT 1010 (EDUC 2265 Recommended)	3
EDUC 2096, 2196…2996 Topics	1-9

Approved electives recommended for working with middle school/secondary students

CDV 2202 Adolescent Growth and Development	3
EDUC 2096, 2196…2996 Topics	1-9
EDUC 2204 Child Development	3
EDUC 2207 Educational Psychology	3
EDUC 2265 or IT 1010 (EDUC 2265 Recommended)	3

Approved electives recommended for working with special needs students

CDV 1107 Art and Play	3
EDUC 2096, 2196….2996Topics	1-9
EDUC 2204 Child Development	3
EDUC 2207 Educational Psychology	3
EDUC 2265 or IT 1010 (EDUC 2265 Recommended)	3
SPED 2201 Education of the Exceptional Person	3
SPED 2290 Introduction to Special Education Practicum	2

**** See page 57 for information on course categories.***

ELECTRICAL TRADES

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

■ Certificate of Completion in Electrical Trades

PROGRAM DESCRIPTION

The Electrical Trades Certificate Program provides students the opportunity to gain the knowledge and technical skills necessary to enter the electrical trade. A certificate is obtained by the student after successful completion of three terms and is accepted by the State of New Mexico Construction Industries Division as two years experience toward the four-year experience requirement for the State of New Mexico Journeyman Electrical Certificate (JE98).

Theory and lab courses are designed to be taken together to give students an in-depth understanding of the concepts of the electrical trade.

First term students obtain knowledge and hands-on training for personal and tool safety, meter reading, electrical circuitry, electrical formulas, electrical calculations, material identification and AC/DC motor operation and troubleshooting.

Second term students are taught residential blueprint reading, application of the National Electrical Code (NEC), NM Electrical Code (NMEC) and local electrical codes, installation of branch circuits and feeders, residential services, single pole, three and four-way switch circuits, door chime installation, dryer, range and swamp cooler circuitry and conduit bending.

Third term students receive Occupational Safety Hazard Administration (OSHA) compliance safety training, technical skills, power distribution systems, 3-phase services, hazardous locations, commercial blueprint reading, circuitry, 3-phase motor starters, timers, mechanical and hydraulic conduit bending, power threaders, cutting and threading of rigid metal conduit, knock-out punches, hammer-drill operation, powder actuated fasteners, cable installation, wire pulling and application of the NEC.

SPECIAL REQUIREMENTS

Students must have normal color differentiation. Electricians work with identified colored wires requiring accurate connections. The moving and installation of electrical materials and equipment necessitate that the electrical worker be able to lift at least 50 pounds. Electrical workers may work in various internal and external environments and should be free of chronic respiratory diseases and allergies. Most employers require a valid driver's license and clean driving record. Please contact Program Director for required tool list.

Fees: Course fees are published in the *Schedule of Classes*. These fees cover the cost of tools required for lab activities.

CAREER AND EDUCATIONAL OPPORTUNITIES

The New Mexico Department of Workforce Solutions predicts a continued increase in the demand for electrical workers for years to come. One hundred percent of CNM Electrical Trades graduates obtained employment in the electrical trade in 2007- 2008. The Department of Workforce Solutions reports that the starting wages for electrical workers range from $14.51 to $24.68 per hour or $30,180 to $51,318 annually. Coursework from Electrical Trades/Residential Wiring may be applied toward the Associate of Applied Science Degree in Construction Technology.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0750 Basic College Mathematics or Arithmetic score of	57
RDG 0750 Reading Improvement	69

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ELTR 1005 Electrical Theory I	4
ELTR 1010 Electrical Math I	3
ELTR 1092 Electrical DC/AC Lab	3
ELTR 1192 AC Circuitry, Motors and Generators	3
TERM 2	
ELTR 1205 Blueprint Reading I	3
ELTR 1210 Electrical Theory II	4
ELTR 1292 Residential Wiring Lab	3
ELTR 1392 Residential Electrical Services	3
TERM 3	
ELTR 2005 Electrical Theory III	4
ELTR 2010 Electrical Motor Control Theory	3
ELTR 2092 Industrial Motor Control Lab	3
ELTR 2192 Industrial Power Distribution	3

Certificate in Electrical Trades 39

**** See page 57 for information on course categories.***

ELECTRONICS TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3340 or from Academic Advisement and Career Development at (505) 224-4321.

- **Associate of Applied Science Degree in Electronics Technology**
- **Certificate of Completion in Electronics Technology**

PROGRAM DESCRIPTION

At the time of publication, this program was undergoing curriculum redesign. Once completed, the program will be available online at cnm.edu/course catalog/index.php. The redesign will affect students who enter the program on or after fall 2009. For current students who have formally declared this major, refer to the program requirements listed in the 2007-2009 catalog.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

ENROLLING AT CNM
STUDENT RESOURCES
EDUCATIONAL OPTIONS
DISTANCE LEARNING
NON-CREDIT OPTIONS
ACADEMIC POLICIES AND REQUIREMENTS
MOVING ON
PROGRAMS OF STUDY
COURSE DESCRIPTIONS
CODES AND POLICIES
GLOSSARY, INDEX AND MAPS

**** See page 57 for information on course categories.***

EMERGENCY MEDICAL SERVICES

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-5259.

cnm.edu/depts/hwps/progs

- **Associate of Applied Science Degree in Emergency Medical Technician – Paramedic**
- **Certificate of Achievement in Emergency Medical Services – First Responder**
- **Certificate of Achievement in Emergency Medical Technician – Basic**
- **Certificate of Achievement in Emergency Medical Technician – Intermediate**
- **Certificate of Achievement in Emergency Room Technician**

PROGRAM DESCRIPTION

The EMS program offers courses for students interested in a career in prehospital emergency medical services. Entry-level students must complete the certificate of achievement in EMT-Basic in order to gain EMS licensure in the state of New Mexico. Certificates of Achievement in EMS First Responder, EMT-Basic, EMT-Intermediate, and ER-Technician help improve employment opportunities in the prehospital and emergency hospital setting.

The First Responder course is designed for students not wishing to pursue advanced training in EMS. This course is typically taken by students acting as "first responders" in an industrial or volunteer setting. This is not a pre-requisite to the paramedic program. This course is NOT a pre- or corequisite for any other level of EMS training at CNM.

The EMT-Basic courses are entry-level courses for pursuing a career in EMS. This is a pre-requisite to the paramedic program.

The EMT-Intermediate courses offer additional skills and training for EMS personnel. These courses may be taken by students wishing to gain additional medical skills, but not wishing to pursue a paramedic license. These courses may also provide additional training prior to petitioning for entrance into the paramedic program. These courses are recommended for students with limited field experience. This is a recommended pre-requisite to the paramedic program.

The ER Tech courses offer additional skills and training for EMS personnel who want to work in a hospital setting. The EMT-Intermediate course and/or licensure is a pre- or corequisite. This is NOT a pre-requisite to the paramedic program.

Students who complete the Associate of Applied Science Degree in Emergency Medical Technician – Paramedic are eligible to take the natinal licensure exam. EMT-Paramedics provide the highest level of care in the prehospital setting and are currently in high demand.

EMTs and paramedics should be emotionally stable, have good dexterity, agility, and physical coordination, and be able to lift and carry heavy loads. They are required to do considerable kneeling, bending, and heavy lifting. They also need good eyesight (corrective lenses may be used) with accurate color vision. These workers risk noise-induced hearing loss from sirens, back injuries from lifting patients, and may be exposed to communicable diseases.

SPECIAL REQUIREMENTS

Courses which include patient care experience (out-of-hospital or in-hospital) require the purchase of clinical uniform, patient care equipment (stethoscope, penlight, shears, etc.), drug screening, and a criminal background check. Students with a positive drug screening or felony record may not be allowed to participate in a patient care setting. Students also must show proof of current immunizations (TB and MMR) prior to working with patients in a clinical setting. Proof of personal health care insurance is required for clinical courses

Term 1 of the paramedic program is only offered in the fall and spring. Term 2 of the paramedic program is only offered in the spring and summer.

Petitioning Process: The paramedic program cohort (terms 1 and 2) requires a petitioning process. Students must have completed the following required program courses in order to petition for the paramedic program cohort (terms 1 and 2):

- Human Systems, Pathophysiology, and Development for EMS (EMS 2103) or BIO 2310
- Drug Calculations (EMS 2203)
- Legal Issues and Report Writing (EMS 2207)
- Endocrine and GI/GU Theory (EMS 2213)
- Pharmacology Theory (EMS 2217)
- Advanced Trauma Theory (EMS 2223)
- Advanced Trauma Lab (EMS 2293)

None of these completed courses (listed above) can be older than two years at the time of petition. In addition, students must also have a high school diploma or GED and be licensed in the State of New Mexico as an EMT-Basic or EMT-Intermediate.

Selection Process: Selection into the paramedic program is awarded to the most qualified applicants. Preference is given to students petitioning for the paramedic program based on the following criteria:

- Completion of other required program courses to include:
  - Biology for Health Sciences (BIO 1410)
  - College Writing (ENG 1101) or ENG 1102 or ENG 1119
  - College Algebra (MATH 1315) or MATH 1415
  - Introduction to Psychology (PSY 1105) or PSY 2289
  - Biomedical Ethics (PHIL 2247)
- Career or volunteer prehospital EMS experience and/or hospital emergency room experience
- EMT-Intermediate licensure status
- Academic grades in required program EMS courses
- WorkKeys scores in Listening, Teamwork, and Observation
- Other advanced degrees (associate's, bachelor's, master's. PhD)

It is recommended that students selected to the cohort work no more than 20 hours per week due to the rigorous nature of class work, lab work, clinical shifts, and internship associated with terms 1 and 2.

External fees may apply.

See page 57 for information on course categories.

CAREER AND EDUCATIONAL OPPORTUNITIES

Paramedics have the most autonomy and greatest latitude in patient care decision-making of any allied health medical provider. Individuals seeking a rewarding and exciting career in patient care should consider this career pathway. Some people become EMTs and paramedics to test their interest in health care before training as registered nurses, physicians, or other health workers. Employment for EMTs and paramedics is expected to grow faster than the average for all occupations through 2016. Job prospects should be good, particularly in cities and with private ambulance services.

EMTs and paramedics work both indoors and out, in all types of weather. The nature of this career field requires working days, nights, weekends, and holidays. Some of these workers, especially those in fire departments, are on call for extended periods. The work is not only physically strenuous but can be stressful, sometimes involving life-or-death situations and suffering patients. Nonetheless, many people find the work exciting and challenging and enjoy the opportunity to help others.

Most career EMTs and paramedics work in metropolitan areas. Volunteer EMTs and paramedics are more common in small cities, towns, and rural areas. Emergency medical services personnel of all levels are employed with fire departments, ambulance services, or work as part of the health care team in hospitals. Additionally, experienced paramedics may find employment with specialized hospital units (catheter lab technician, ECG technician, ICU technician, etc.), aeromedical services (flight medicine), or can become supervisors, operations managers, administrative directors, or executive directors of emergency services. Some EMTs and paramedics become instructors, dispatchers, or physician assistants; others move into sales or marketing of emergency medical equipment.

Completion of the Associate of Applied Science Degree in Emergency Medical Services – Paramedic allows transition into bachelor's level EMS programs at the University of New Mexico and other universities.

A list of current transfer agreements are available at cnm.edu/transferout.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

EMERGENCY MEDICAL SERVICES – FIRST RESPONDER CERTIFICATE

This course is NOT a pre- or corequisite for any other level of EMS training at CNM.

EMS 1003 EMS First Responder 4

Certificate in Emergency Medical Services – First Responder 4

EMERGENCY MEDICAL TECHNICIAN – BASIC

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80
HLTH 1001 Clinical Preparation (Pre- or corequisite to EMS 1053)	

REQUIRED COURSES

COURSE	CREDIT HOURS
EMS 1053 EMT Basic Theory	6
EMS 1093 EMT-Basic Lab	2

Certificate in Emergency Medical Technician – Basic 8

EMERGENCY MEDICAL TECHNICIAN – INTERMEDIATE

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80
EMS 1053 EMT-Basic Theory	
EMS 1093EMT-Basic Lab	
Or	
Current EMT-B New Mexico State License	
And	
Current proof of professional CPR	
Departmental Approval	

REQUIRED COURSES

COURSE	CREDIT HOURS
EMS 1413 EMT-Intermediate Theory	4
EMS 1490 EMT-Intermediate Clinical	1
EMS 1493 EMT-Intermediate Lab	2

Certificate in Emergency Medical Technician – Intermediate 7

See page 57 for information on course categories.

EMERGENCY ROOM TECHNICIAN

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80
EMS 1413 EMT-Intermediate Theory	
EMS 1493EMT-Intermediate Lab	
Or	
Current EMT-B New Mexico State License	
And	
Current proof of professional CPR	
Departmental Approval	

REQUIRED COURSES

COURSE	CREDIT HOURS
EMS 1713 ER Technician-Theory	1
EMS 1790 ER Technician-Clinical	1
EMS 1793 ER Technician-Lab	1

Certificate in Emergency Room Technician 3

PARAMEDIC DEGREE

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

PARAMEDIC PROGRAM PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 1310 Intermediate Algebra or College Math score	60
RDG 0950 Reading and Critical Thinking	80
EMS 1053 EMT Basic Theory	
EMS 1093 EMT-Basic Lab	
Or	
Current EMT-B or EMT-I New Mexico State License	
Or	
Current EMT-B or EMT-I NREMT Certification	
High School Diploma or GED	

REQUIRED PROGRAM COURSES

COURSE	CREDIT HOURS
BIO 1410 Biology for Health Sciences	3
ENG 1101 College Writing	3
Or	
ENG 1102 Analytic and Argumentative Writing	
Or	
ENG 1119 Technical Communications	
MATH 1315 College Algebra	3
Or	
MATH 1415 Advanced Algebra	
PHIL 2247 Biomedical Ethics	3
PSY 1105 Introduction to Psychology	3
Or	
PSY 2289 Death and Dying	
EMS 2103 Human Systems, Pathophysiology, and Development	3
Or	
BIO 2310 Human Anatomy and Physiology II	
EMS 2203 Drug Calculations	1
EMS 2207 Legal Issues and Report Writing	2
EMS 2213 Endocrine and GI/GU Theory	1
EMS 2217 Pharmacology Theory**	3
EMS 2223 Advanced Trauma Theory**	3
EMS 2293 Advanced Trauma Lab	2

***** Must obtain a letter grade of "B" or higher.***

REQUIRED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1 (FALL OR SPRING ONLY)	
EMS 2303 Cardiovascular Theory	3
EMS 2307 Respiratory Theory	2
EMS 2313 Neurology Theory	2
EMS 2390 Hospital Clinical I	2
EMS 2393 Paramedic Lab I	3
EMS 2490 Prehospital Field Clinical I	3
TERM 2 (SPRING OR SUMMER ONLY)	
EMS 2503 Pediatric and Gynecology Theory	3
EMS 2507 Environmental Theory	3
EMS 2513 Behavioral Emergencies and Communication	1
EMS 2590 Hospital Clinical II	1
EMS 2593 Paramedic Lab II	2
EMS 2690 Prehospital Field Clinical II	4
EMS 2999 Paramedic Capstone	1

Associate of Applied Science in Emergency Medical Technician – Paramedic.....60-61

**** See page 57 for information on course categories.***

ENGINEERING

School of Math, Science & Engineering

CONTACT INFORMATION

Math, Science & Engineering Office: (505) 224-3561, Academic Advisement and Career Development: (505) 224-4321.

cnm.edu/depts/mse/engin

■ Associate of Science Degree in Engineering

PROGRAM DESCRIPTION

The engineering degree includes foundation courses in math and the sciences, introducing the concepts and methods of engineering. The associate's degree is designed as the first two years of a bachelor's degree in engineering and graduates are encouraged to continue their studies in a specified area of engineering at a four-year institution. Students planning to transfer to a bachelor of science degree program are advised to refer to the catalog of their intended transfer institution before making course selections.

CAREER AND EDUCATIONAL OPPORTUNITIES

Engineers apply the principles of science and mathematics to develop useful objects or processes that meet the needs of commerce and society. The major functions of all branches of engineering include development and design, construction, production, testing and maintenance. According to the U.S. Labor Department, the demand for engineers is expected to grow approximately eight percent over the next decade.

Engineering offers a wide range of opportunities in a variety of specialized areas: Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Engineering Physics, Industrial Engineering, Manufacturing Engineering, Mechanical Engineering, Nuclear Engineering, Petroleum Engineering and Surveying Engineering.

Transfer and articulation agreement information is available at cnm.edu/transferout.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

SPECIAL NOTES

Students are strongly encouraged to contact the school of Math, Science & Engineering before selecting specific courses in the Computer Science or Engineering Elective categories. Courses in these categories must be chosen appropriately to fulfill the requirements of the specific baccalaureate Engineering degree the student wishes to pursue.

COURSE PREREQUISITE(S)

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
RDG 0950 Reading and Critical Thinking	80
MATH 1410 Trigonometry or College Level Math score of	100
MATH 1415 Advanced Algebra or College Level Math score of	100

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ENG 1101 College Writing	3
MATH 1710 Calculus I	4
CHEM 1710 General Chemistry I	3
CHEM 1792 General Chemistry I Lab	1
ENGR 1010 Survey of Engineering	1
TERM 2	
ENG 1102 Analytic and Argumentative Writing	3
MATH 1715 Calculus II	4
CSCI 1151 Intro to Programming for Non-Computer Science Majors	4
Or	
CSCI 1152 Intro to Programming for Computer Science Majors	
Or	
CSCI 1153 Programming in Matlab	
PHYS 1710 General Physics I	4
PHYS 1792 General Physics I Lab	1
TERM 3	
MATH 2710 Calculus III	4
PHYS 1810 General Physics II	4
PHYS 1892 General Physics II Lab	1
*SOCIAL/BEHAVIORAL SCIENCE ELECTIVE	3
Engineering Elective (SEE LIST)	3-4
TERM 4	
ENG 2219 Technical Writing	3
MATH 2910 Applied Ordinary Differential Equations	3
ECON 2200 Macroeconomics	3
*HUMANITIES OR FINE ARTS ELECTIVE	3
Engineering Elective (SEE LIST)	3-4
TERM 5	
*HUMANITIES OR FINE ARTS ELECTIVE	3
*HUMANITIES OR FINE ARTS OR SOCIAL/BEHAVIORAL SCIENCE ELECTIVE	3
Engineering Elective (SEE LIST)	3-4
Engineering Elective (SEE LIST)	3-4

**** See page 57 for information on course categories.***

Associate of Science in Engineering 70-74

APPROVED ENGINEERING ELECTIVES

CHEM 1810 General Chemistry II	3
CHEM 1892 General Chemistry II Lab	1
CHEM 2710 Organic Chemistry I	3
CHEM 2792 Organic Chemistry I Lab	1
CSCI 2201 Math Foundations of Computer Science	4
CSCI 2251 Intermediate Computer Programming	4
ENGR 2088 Engineering Specialty**	1-16
ENGR 2710 Thermodynamics	3
ENGR 2810 Engineering Statics	3
ENGR 2815 Engineering Dynamics	3
ENGR 2910 Circuit Analysis I	4
ENGR 2915 Circuit Analysis II	3
MATH 2810 Applied Linear Algebra	3
PHYS 2710 General Physics III	4

*****This course is used to transfer approved courses from other colleges and universities***

ENGLISH AS A SECOND LANGUAGE

School of Adult & General Education

CONTACT INFORMATION

Please call (505) 224-4282 for information on English as a Second Language.

DESCRIPTION

The Adult Basic Education (ABE) ESL program offers free courses in English as a Second Language (ESL). The goal of these courses is to help adult students improve their listening, speaking, reading, and writing skills in English. A range of leveled courses is available from Literacy level to Advanced. Other courses that the program offers are Integrated (multi-level) courses and Citizenship. Most courses meet for fifteen weeks in the fall and spring and for 12 weeks in the summer term. Students usually attend classes twice a week, but some Intensive classes are also offered that meet four days a week for half a semester. ESL classes are non-credit courses; students completing this program can transition to credit courses through the ESOL (credit ESL) program.

SPECIAL REQUIREMENTS

Students registering for ESL classes are required to take the CASAS (Comprehensive Adult Student Assessment System) test to determine the appropriate course level. The CASAS test takes approximately two hours to complete.

Students who are enrolled only in ESL courses receive most of the same services as other CNM students (for example, library access), but are not eligible for financial aid. Also, students registering for ESL classes do not follow the procedures outlined in this catalog for admission and registration. Interested students should contact the School of Adult & General Education at (505) 224-4282 for more information.

CAREER AND EDUCATIONAL OPPORTUNITIES

English as a Second Language (ESL) courses prepare students for higher education, job advancement, or personal fulfillment.

ENGLISH AS A SECOND LANGUAGE (ESL) COURSE OPTIONS

Course placement and order based on CASAS test results.

Core Courses

ESL 0250
ESL Literacy

ESL 0350
Beginning ESL

ESL 0450
Low Intermediate ESL

ESL 0550
High Intermediate ESL

ESL 0650
Low Advanced ESL

Next Level Courses

- **GED classes (offered in English and Spanish)**
- **Advanced ESOL Courses for credit**
- **Developmental Education (DE) Courses for credit**
- **CNM Degree or Certificate program**

See page 57 for information on course categories.

ENVIRONMENTAL SAFETY AND HEALTH

School of Math, Science & Engineering

CONTACT INFORMATION

Math, Science & Engineering Office: (505) 224-3561, Academic Advisement and Career Development: (505) 224-4321

■ **Associate of Applied Science Degree in Environmental Safety and Health**

PROGRAM DESCRIPTION

Students will study the diverse fields of environmental sciences, safety and health, addressing such areas as biological and hazardous waste, air and water quality, domestic and industrial waste, workplace safety, energy management and recycling. Classes include classroom and laboratory study.

An associate of applied science degree is offered. Students who complete specific courses may receive the following training certifications:

- 40-Hour Hazardous Waste Operations Training Certification
- 10-Hour OSHA General Industry Training Certification
- 30-Hour OSHA General Industry Training Certification
- 8-Hour Confined Space Entry Training Certification
- 8-Hour Red Cross Workplace First Aid/CPR Training Certification

SPECIAL REQUIREMENTS

Students will be required to obtain medical clearance for the use of respiratory protection equipment and will be responsible for the cost of Red Cross First Aid/CPR certification cards.

CAREER AND EDUCATIONAL OPPORTUNITIES

Courses prepare students for entry-level jobs in the environmental protection field and in industry as environmental health and safety technicians. Coursework also provides skills for upgrade/advancement for individuals currently employed with industry. Department of Labor projections indicate job opportunities for technicians will continue to grow.

The AAS degree prepares students for jobs as entry-level environmental technicians for government departments or in private industry. The AAS degree is also transferable to certain 4-year degree programs.

Transfer and articulation agreement information is available at cnm.edu/depts/academicaffairs/oeu/Articulation_Agreements/CNN_CollegeofSantafe_Enrivonmental0001.pdf

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing or Sentence Skills score of	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ESH 1009 Environmental Technology I	3
ESH 1010 Environmental Regulations and Compliance	3
ENG 1101 College Writing	3
MATH 1210 Methods of Problem Solving or higher (except MATH 2110 and 2096)	3-4
TERM 2	
ESH 1571 Environmental Instrumentation and Analysis	3
CHEM 1410/1492 Introduction to Chemistry (prerequisite for CHEM 2210)	4
IT 1010 Introduction to Computers	3
TERM 3	
ESH 2016 + 2017 + 2018 Occupational Safety I, II, III	3
Or	
ESH 2006 + 2009 Occupational Safety for Construction I, II	
ESH 2011 Watershed Protection	3
ENG 1119 Technical Communications	3
Or	
ENG 2219 Technical Writing	
BIO 1410/1492 Biology for Health Sciences	4
TERM 4	
ESH 1570 Water Quality Protection	3
ESH 2407 Air Quality Protection	3
ESH 2410 Environmental Sampling and Analysis	3
CHEM 2210 Organic Chemistry and Biochemistry	3
COMM ELECTIVE	3
TERM 5	
ESH 1809 Workplace Adult First Aid and CPR	1
ESH 2899 Environmental Safety and Health Capstone Course	2
ESH Elective	3
*HUMANITIES/SOCIAL AND BEHAVIORAL SCIENCE ELECTIVE	3
PHYS 1010 Introduction to Physics	1

Associate of Applied Science in Environmental Safety and Health 63-64

ENVIRONMENTAL SAFETY AND HEALTH APPROVED ELECTIVES

ESH 2002 Food Resources and The Environment	3
ESH 2008 Basic Site Remediation Technology	3
ESH 2408 Introduction to Safety Management	3
ESH 2409 Water/Wastewater Math	3
ESH 2414 Radiation Protection I	4
ESH 2415 Radiation Protection II	4

**** See page 57 for information on course categories.***

FILM CREW TECHNICIAN

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711.

cnm.edu/depts/at/index.php

■ **Certificate of Completion in Film Crew Technician**

PROGRAM DESCRIPTION

The Film Crew Technician Program certificate is designed as a two-term 24-credit cohort program. The first term courses will give the student an overview of the movie Industry while affording an opportunity for hands-on experience via the production of various projects. During the second term the student will develop a specialization in one of the "below the line" craft areas. Topics covered will include: film production and procedures, film crew organization and job descriptions, film production safety issues, scripts and script breakdown, pre-production, production shooting, post-production/editing, art crafts, grip/electric crafts, camera, sound, makeup/hair/wardrobe and production office.

SPECIAL REQUIREMENTS

The nature of film work requires participants to stand for long durations and tolerate inclement weather conditions. Students will be required to commit extensive day, night and weekend hours while participating in class projects.

Required Tools: Work gloves, multi-tool, tool belt.

Program fees apply.

Student must be at least 18 years old to enroll in FILM 1003, FILM 1092, FILM 1192 and FILM 1020

CAREER AND EDUCATIONAL OPPORTUNITIES

Graduates are prepared for entry-level film crew positions. CNM's Film Crew Technician Program is a component of the New Mexico Film office's Workforce Training Program.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
RDG 0950 Reading and Critical Thinking	80
MATH 0940 Algebraic Problem Solving II or Elementary Algebra score of	81

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
FILM 1001 Intro to Film and Media Workflow	3
FILM 1003 Basics of Film and Media Production	3
FILM 1092 On Set Production Techniques	3
FILM 1192 Location Production Techniques	3
TERM 2	
FILM 1020 Film Technician Training II	12

Certificate in Film Crew Technician Training..... 24

**** See page 57 for information on course categories.***

FINE ARTS

School of Communication, Humanities & Social Sciences

CONTACT INFORMATION

Associate Dean: (505) 224-3588, Curriculum Chair: (505)224-3588

■ **Associate of Arts Degree in Fine Arts (Concentrations in Art History and Art Studio)**

PROGRAM DESCRIPTION

The associate of arts degree in Fine Arts offers a focus on either Art Studio or Art History and, for transfer purposes, covers the curriculum of the first two years of a baccalaureate degree in art. The degree includes the general education curriculum of 35 hours which is accepted by all New Mexico state colleges and universities as part of the general education core for degree completion. The program includes both classroom and studio instruction and provides a solid basis both for art practice and for further study. It is recommended that students who wish to concentrate on studio art or art history follow the recommended sequence of courses shown in the appropriate checklist.

Please see page 60 and the following links for articulation agreements and transfer information:

cnm.edu/depts/academicaffairs/oeu/Articulation_Agreements/CNM_UNM_Fine_Arts_Art_History_conc0001.pdf

cnm.edu/depts/academicaffairs/oeu/Articulation_Agreements/CNM_UNM_Fine_Arts_Studio_Conc0001.pdf

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
RDG 0950 Reading and Critical Thinking	80
MATH 1210 or 1310 or College Level Math score of	60
ENG 0950 Essay Writing	85

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

FINE ARTS *(ART HISTORY CONCENTRATION)*

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ARTS 1106 Drawing I	3
ENG 1101 College Writing	3
MATH 1315 or above	3
HUMANITIES ELECTIVE (SEE LIST)	3-4
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3-4
TERM 2	
ARTS 1121 Two Dimensional Design	3
ARTH 2201 History of Art	3
ENG 1102 Analytic and Argumentative Writing	3
*FOREIGN LANGUAGE	3-4
ART STUDIO ELECTIVE (except 1106 and 1121)	3
TERM 3	
ARTH 2202 History of Art II	3
COMM 1130 Public Speaking	3
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3
FINE ARTS (SEE LIST)	3
*FOREIGN LANGUAGE	3
BIOLOGICAL/PHYSICAL SCIENCE (SEE LIST)	3-4
TERM 4	
ARTH 2250 Modern Art	3
ARTH 2251 Art of the American Southwest	3
SOCIAL/BEHAVIORAL SCIENCE (SEE LIST)	3
HUMANITIES ELECTIVE (SEE LIST)	3
BIOLOGICAL/PHYSICAL SCIENCE w/lab (SEE LIST)	3-4

Associate of Arts in Fine Arts (Art History Concentration) 64-68

APPROVED ELECTIVES

BIOLOGICAL/PHYSICAL SCIENCE ELECTIVES (7-8 CREDIT HOURS WITH AT LEAST ONE CORRESPONDING LAB)

ASTR 1010, 1110, 1192	1-3
BIO 1010/1092 OR 1410/1492	4
CHEM 1410/1492 OR 1510/1592 OR 1610/1692	4
PHYS 1010, 1510/1592, 1610/1692, 1710/1792, 1810/1892	3-4

SOCIAL/BEHAVIORAL SCIENCE ELECTIVES (6 CREDIT HOURS IN AT LEAST TWO DISCIPLINES)

ANTH 1101, 1130	3
ECON 2200, 2201	3
GEOG 1102 Human Geography	3
PSCI 1110, 2200, 2220, 2240	3
PSY 1105 Introduction to Psychology	3
SOC 1101 Introduction to Sociology	3

HUMANITIES (6 CREDIT HOURS REQUIRED)

ENG (Literature)	3
HIST 1101 OR 1102 (Recommended HIST 1101 AND 1102 for transfer to UNM Fine Arts)	3
HUM 1111 OR 1121	3
PHIL 1110 OR 1156	3

FINE ARTS (3 CREDIT HOURS REQUIRED)

MUS 1139 OR 1140	3
THEA 1122 Introduction to Theatre	3

See page 57 for information on course categories.

FINE ARTS *(ART STUDIO CONCENTRATION)*

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ARTS 1106 Drawing I	3
ENG 1101 College Writing	3
ARTH 2201 History of Art I	3
MATH 1315 or above	3
HUMANITIES ELECTIVE (SEE LIST)	3
TERM 2	
ARTS 1121 Two-Dimensional Design	3
ARTH 2202 History of Art II	3
ARTS 2205 Drawing II	3
ENG 1102 Analytic and Argumentative Writing	3
BIOLOGICAL/PHYSICAL SCIENCE (SEE LIST)	3
HUMANITIES ELECTIVE (SEE LIST)	3
TERM 3	
COMM 1130 Public Speaking	3
ARTS 1122 Three-Dimensional Design	3
ARTS 2206 Printmaking I	3
ARTS 2206 Printmaking I	3
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3
*LANGUAGE	3-4
TERM 4	
ARTH 2250 Modern Art	3
ARTS 2207 Painting I	3
ARTS 2210 Art Career Concerns (SPRING TERM ONLY)	3
FINE ARTS ELECTIVE (SEE LIST)	3
BIOLOGICAL/PHYSICAL SCIENCE w/LAB (SEE LIST)	4-5

Associate of Arts in Fine Arts (Art Studio Concentration) 64-68

APPROVED ELECTIVES

BIOLOGICAL/PHYSICAL SCIENCE ELECTIVES (7-8 CREDIT HOURS REQUIRED WITH AT LEAST ONE LAB)	
ASTR 1010, 1110, 1192	1-3
BIO 1010/1092 OR 1410/1492	4
CHEM 1410/1492 OR 1510/1592 OR 1610/1692	4
PHYS 1010, 1510/1592, 1610/1692, 1710,/1792, 1810/1892	3-4
SOCIAL/BEHAVIORAL SCIENCE ELECTIVES (6 CREDIT HOURS REQUIRED IN AT LEAST TWO DISCIPLINES)	
ANTH 1101,1130	3
ECON 2200, 2201	3
GEOG 1102 Human Geography	3
PSCI 1110, 2200, 2220, 2240	3
PSY 1105 Introduction to Psychology	3
SOC 1101 Introduction to Sociology	3
HUMANITIES (6 CREDIT HOURS REQUIRED)	
ENG (Literature)	3
HIST 1101, 1102 (Recommended HIST 1101 AND 1102 for transfer to UNM School of Fine Arts)	3
HUM 1111 OR 1121	3
PHIL 1110 OR 1156	3
FINE ARTS (3 CREDIT HOURS REQUIRED)	
MUS 1139 OR 1140	3
THEA 1122 Introduction to Theatre	3

See page 57 for information on course categories.

FIRE SCIENCE

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-4207.

cnm.edu/depts/hwps/progs

- **Associate of Applied Science Degree in Fire Science**
- **Certificate of Achievement in Firefighter I**

PROGRAM DESCRIPTION

The fire service career field is expanding due to an emphasis on fire safety and fire prevention, which has created a need for trained, skilled, and knowledgeable firefighters. The Fire Science program leads to an Associate of Applied Science Degree in Fire Science that gives the student the educational background needed for employment in a fire service career. It may also help achieve a promotion after gaining employment. To accommodate the diverse schedules of students, courses are offered throughout the day and evening. For students or professionals unable to attend classes on campus several online courses are also offered. Students in the Fire Science program will benefit from faculty who bring up-to-date industry experience into the classroom. The curriculum has been validated by several subject matter experts throughout the country and is based on a national model developed by the National Fire Academy (NFA). The program will provide graduates with a sense of community service and what it takes to be successful in the fire service. Once prerequisites are met students can enroll in the Firefighter I course. Upon successful completion of the Firefighter-I certificate students will be eligible to receive the International Fire Service Accreditation Congress Certificate (IFSAC) the certificate indicates he/she is nationally certified.

SPECIAL REQUIREMENTS

Students with a criminal background may have limited employment opportunities in public service. Students should contact local or regional industry for hiring and employment practices. Contact HWPS (505) 224-4111 for more information. All HWPS career and technical courses required for graduation must be taken for a traditional grade of A, B, or C. For HWPS career and technical courses offered only for credit/no credit, a grade of credit (CR) must be earned.

CAREER AND EDUCATIONAL OPPORTUNITIES

The Associate of Applied Science Degree in Fire Science will prepare the student for a variety of careers in firefighting (structural and wildland), fire inspections, hazardous materials, fire suppression and detection systems, and fire extinguisher maintenance. Upon completion of the Wildland Firefighting course students will be certified as Wildland Firefighters. This certification could lead to a seasonal Forestry Aid GS 3 position. The program has an agreement, sponsored by the NFA, with seven accredited colleges and universities throughout the country that offer a bachelor's degree with concentrations in fire administration and fire prevention technology. All instruction from these colleges or universities is delivered completely online and students pay in-state tuition. Different fire departments use various combinations for the selection process besides a degree. Some fire departments are now requiring a Firefighter I Certificate that indicates the level of Technical and Manipulative training received.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0930 Algebraic Problem Solving I or Elementary Algebra	score of 72
ENG 0950 Essay Writing	85
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

**** See page 57 for information on course categories.***

SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ENG 1101 College Writing	3
ESH 2016 Occupational Safety I	1
FITT 1792 Physical Fitness I	1
Or	
FITT 2093 Extreme Conditioning	
FS 1010 Introduction to Fire Science	3
IT 1010 Introduction to Computers	3
TERM 2	
ENG 1119 or 2219 Technical Communications	3
FS 1504 Wildland Firefighting	3
FS 1512 Building Construction	3
MATH 1210 Methods of Problem Solving or higher (except Math 2110 and 2096)	3-4
TERM 3	
CHEM 1410/1492 Introduction to Chemistry/Laboratory	4
Or	
CHEM 1710/1792 General Chemistry I	
COMM 1130 Public Speaking or higher	3
FS 2001 Fire Protection Systems	3
FS 2003 Hazardous Materials I	1
FS 2008 Fire Protection Hydraulics and Water Supply	3
TERM 4	
FS 2402 Managing Community Fire Protection	3
FS 2416 + 2417 + 2418 Command Strategy and Tactics I, II, III	3
FS 2422 Fire Behavior and Combustion	3
SOC 1101 Introduction to Sociology	3
TERM 5	
Approved Electives (SEE LIST)	6
FS 2814 Facilities Inspection	3
FS 2999 Fire Science Capstone Course	1
SOC 2216/2211 Ethnic and Minority Groups or Social Problems	3

Associate of Applied Science in Fire Science 62-63

APPROVED ELECTIVES

Any CJ Course
Any EMS Course
Any ESH Course
Any FS Course
Biological/ Physical Science
CSE 1101 College Success or higher
Foreign Language
*HUMANITIES
*SOCIAL/BEHAVIORAL SCIENCE

FIREFIGHTER I CERTIFICATE

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

REQUIRED COURSES

COURSE	CREDIT HOURS
EMS 1003 EMS First Responder	3
FS 1504 Wildland Firefighting	3
FS 2003 Hazardous Materials I	1
FS 2103 Hazardous Materials II	2
FS 2015 Firefighter I	5

Certificate in Firefighter I 14

*** See page 57 for information on course categories.***

FITNESS TECHNICIAN

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-4213.

cnm.edu/depts/hwps/progs

■ **Certificate of Completion in Fitness Technician**

PROGRAM DESCRIPTION

Students will study exercise physiology, kinesiology, nutrition, fitness assessment, exercise prescription and the business aspects of personal fitness training. Students will also be instructed in the Job Analysis Task List of the National Strength and Conditioning Association Certified Personal Trainer certification exam, the Knowledge, Skills and Abilities of the American College of Sports Medicine Health/Fitness Instructor certification exam and the Basic Exercise Standards and Guidelines of the Aerobics and Fitness Association of America's Primary Certification group for fitness leaders. Courses include classroom and lab time. All 1000-level physical activity courses are offered as CR/NC only.

The program begins every fall and can be completed in two consecutive terms if attending full time. The majority of fall term classes are prerequisites for the spring term classes.

All students enrolled in any physical activity course are required to fully and accurately fill out the PAR-Q and You and Preparticipation Screening Questionnaire. Students who fail to do so will not be able to participate in the course until that time all paperwork is filled out completely and to the instructor's satisfaction. The following individuals are required to have a signed medical release in order to participate in these classes.

1. Females over 55 years of age
2. Males over 45 years of age
3. Any other individuals as required by the instructor.

SPECIAL REQUIREMENTS

Required information sessions are scheduled during the summer term prior to enrollment in the Fitness Technician (FITT) Certificate Program, which begins every fall term. For the dates and times of these sessions, interested students must contact the program director of the FITT program at (505) 224-4211. These sessions review the program requirements, curriculum and the profession of personal fitness training in general. Interested students must attend one session. Students will not be allowed to enroll in the program unless they attend one of these sessions.

Students interested in certain School of Health, Wellness & Public Safety programs must be in good physical and psychological health. Some programs require documentation of a recent health screening from a licensed health care provider confirming the ability to safely perform program specific activities and lift a minimum of 50 pounds. Reasonable accommodations are made for those students with disabilities. However, some disabilities may prohibit students from completing program specific competencies or gaining employment. Students with a disability that may interfere with completing program competencies, which may include providing safe patient care, are advised to contact the HWPS School office at (505) 224-4111.

All School of Health, Wellness & Public Safety career and technical courses required for graduation must be taken for a traditional grade or A, B or C. For Health, Wellness & Public Safety career and technical courses offered only for credit/no credit, a grade of credit (CR) must be earned.

CAREER AND EDUCATIONAL OPPORTUNITIES

The CNM Fitness Technician program has a good placement rate for its graduates. The majority of jobs available are as personal fitness trainers in various health and fitness clubs. Graduates have also been employed in hospitals, physical therapy clinics and senior centers.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
RDG 0950 Reading and Critical Thinking	80
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED PROGRAM COURSE

COURSE	CREDIT HOURS
BIO 1310/1392 Human Anatomy and Physiology for Non-Majors Laboratory	4

SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1 (FALL ONLY)	
FITT 1010 Foundations of Exercise Science	3
FITT 1071 The Business of Personal Fitness Training	3
FITT 1072 Kinesiology	3
FITT Fitness Elective (1000-level course or higher)	1

**** See page 57 for information on course categories.***

TERM 2 (SPRING ONLY)

FITT 1098 Fitness Technician Field Experience 3
Or
FITT 1095 Cooperative Education
FITT 1503 Sport Safety Training 1
FITT 1570 Applied Nutrition for Sport and Exercise 3
FITT 1572 Fitness Assessment and Exercise Prescription 3
FITT 1575 Exercise Prescription for Special Populations 3
FITT 2492 Group Exercise leadership Preparation 1

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APPROVED ELECTIVES

CSE 1101 College Success or higher 1-3
FITT 1092 Cardio Kick Boxing 1
FITT 1093 Weight Training for Women 1
FITT 1192 Body Sculpting 1
FITT 1193 Beginning Step Aerobics 1
FITT 1097 Independent Study 1
FITT 1292 Boxing Conditioning 1
FITT 1293 Fall Prevention Training for Older Adults 1
FITT 1393 Flexibility Training 1
FITT 1492 Step/Circuit Combo 1
FITT 1493 Fit Ball Training 1
FITT 1592 Step/Kick Combo 1
FITT 1593 Fundamentals of Fitness Yoga 1
FITT 1692 Beginning Country Western Dance 1
FITT 1693 Fundamentals of Pilates-Style Mat Training 1
FITT 1792 Physical Fitness I 1
FITT 1793 Pilates-Style Mat Training and Fitness Yoga Combo 1
FITT 1892 Fitness for Older Adults 1
FITT 1893 Gentle Fitness Yoga 1
FITT 1992 Circuit Training 1
FITT 1993 Ultimate Frisbee 1
FITT 2092 Physical Fitness II 1
FITT 2093 Extreme Conditioning 1
FITT 2096, 2196…2996 Special Topics 1
FITT 2192 Fitness for Older Adults II 1
FITT 2292 Fitness Yoga 1
FITT 2392 Pilates-Style Mat Training 1

See page 57 for information on course categories.

FOOD SERVICE MANAGEMENT

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

■ Certificate of Completion in Food Service Management

PROGRAM DESCRIPTION

Food Service Management (FSMG) is a two term 23-30 credit hour certificate program. FSMG is available to persons interested in the hospitality/food service field who want the skills necessary to become entry-level supervisors or who want to enhance their current knowledge, skills and abilities as managers. Food safety, sanitation and Hazard Analysis and Critical Control Point (HACCP) procedures are emphasized. Classroom instruction includes theory and hands-on application in food service, nutrition, human resources, beverages and business practices. Students may sit for course examinations prepared by the National Restaurant Association Educational Foundation (NRAEF) and by the Educational Institute of the American Hotel and Lodging Association (AHLA-EI). Upon successful completion, students will be awarded ServSafe® Food Protection Manager Certification from NRAEF and Course Completion Certification from EI. These are additional certifications available from a third party.

SPECIAL REQUIREMENTS

Students are required to purchase new textbooks for program courses with third party exams. Uniforms, tools and equipment may be required for food production labs. Students should be able to lift 30 pounds and must present a physician's certificate to CNM at the start of classes stating that the student is free from tuberculosis in a transmissible form. Students must be able to stand for the duration of lab classes.

CAREER AND EDUCATIONAL OPPORTUNITIES

Jobs are available in restaurants, hotels, resorts, casinos, assisted-living properties and other areas. Types of positions range from entry-level to supervisory/managerial positions, including service managers and kitchen managers.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0750 Basic College Mathematics	57
RDG 0750 Reading Improvement	69
ENG 0950 Essay Writing	85

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CULN 1101 Introduction to Culinary Arts	1
Or	
HT 1101 Introduction to Tourism	3
CULN 1102 Applied Culinary Math	1
CULN 1103 Safety and Sanitation Principles	3
IT 1010 Introduction to Computers	3
NUTR 1010 Personal and Practical Nutrition	3
TERM 2	
HT 2201 Hospitality Operations Management	3
HT 1164 Food and Beverage Service	3
CULN 1010 Food Production and Service Fundamentals	3
Or	
CULN 1111 Cooking Fundamentals I	5
Approved Elective	3-6

Certificate in Food Service Management 23-30

APPROVED ELECTIVES

ACCT courses	3
BA courses	3-6
CIS courses	3
CSE 1101College Success or higher	3
CULN courses (except those required for certificate)	1-5
HT courses (except those required for certificate)	3-4
OTEC 1112 Office Accounting Procedures	3
SPAN 1101 Beginning Spanish or higher	3-4

**** See page 57 for information on course categories.***

GED PREPARATION

School of Adult & General Education

CONTACT INFORMATION

Please call (505) 224-4282 for information on GED Preparation.

DESCRIPTION

The Adult Basic Education (ABE) GED Program offers free instruction to adults who do not have a high school diploma. Through this program students can improve their math, reading, and writing skills in order to prepare for the GED exam and obtain a diploma. Students at the basic literacy level can also learn to read and write. In addition, Job-Life Skills and Computer Literacy courses are available.

SPECIAL REQUIREMENTS

Students registering for GED classes are required to take the TABE (Tests of Adult Basic Education) test to determine the appropriate course level. This assessment takes approximately three hours to complete.

Students who are enrolled only in GED courses receive most of the same services as other CNM students (for example, library access), but are not eligible for financial aid. Also, students registering for GED classes do not follow the procedures outlined in this catalog for admission and registration. Interested students should contact the School of Adult & General Education at (505) 224-4282 for more information.

CAREER AND EDUCATIONAL OPPORTUNITIES

The GED courses help students prepare for the GED exam, higher education, job advancement, or personal fulfillment.

CORE COURSES

Leveled Courses

GEDM 0450
Math Fundamentals

GEDM 0550
Decimals, Fractions, and Measurement

GEDM 0650
Ratios, Proportions and Percents

GEDR 0250
Basic Language Skills I

GEDR 0450
Basic Language Skills II

GEDR 0650
Basic Skills Reading

GEDW 0550
Beginning Writing

GEDW 0650
Spelling and Grammar

Integrated Courses

GEDI 0500
GED Integrated Math

GEDI 0500
GED Integrated Writing

GEDI 0650
Computer Literacy

GEDI 0900
GED Refresher

See page 57 for information on course categories.

GENERAL STUDIES

School of Communication, Humanities & Social Sciences

CONTACT INFORMATION

Associate Dean: (505) 224-3588, Curriculum Chair: (505) 224-3588

- **Associate of Arts Degree in General Studies**
- **Certificate of Completion in General Education**

PROGRAM DESCRIPTION

The General Studies Associate's Degree provides a transfer degree that includes the general education curriculum of the first two years of baccalaureate study. The 35-credit General Education Career Certificate fulfills the New Mexico Higher Education Department "Common Core" requirements, which are transferable to any state college or university in New Mexico. Because of the wide variety of choices for electives, students can take courses that apply directly into their chosen major at a 4-year school. Students are encouraged to meet with a representative from the School of CHSS, from Academic Advising, or from the school to which they expect to transfer to make sure their chosen courses apply to their degree (see page 47 for transfer information). Depending on the courses selected, the program includes classroom, studio, laboratory and distance instruction options. Courses are available days, evenings, and weekends.

Transfer and articulation agreement information is available at cnm.edu/depts/academicaffairs/oeu/Articulation_Agreements/CNM_UNM_General_studies0001.pdf.

ASSOCIATE OF ARTS DEGREE IN GENERAL STUDIES

- Designed for students intending to transfer to a university baccalaureate program in New Mexico.
- Degree is eligible for financial aid.

CERTIFICATE IN GENERAL EDUCATION

- Transfers to any NM state college or university
- Certificate is not eligible for financial aid.

SPECIAL REQUIREMENTS

Students are advised that New Mexico State University and New Mexico Institute of Mining and Technology do not require a foreign language course.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
RDG 0950 Reading and Critical Thinking	80
ENG 0950 Essay Writing	85
MATH 1210 Methods of Problem Solving or 1310 Intermediate Algebra or College Level Math score of	60

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ENG 1101 College Writing	3
MATH ELECTIVE (SEE LIST)	3
HUMANITIES ELECTIVE (SEE LIST)	3
SOCIAL/BEHAVIORAL SCIENCE ELECTIVES (SEE LIST)	3
TERM 2	
ENG 1102 Analytic and Argumentative Writing	3
BIOLOGICAL/PHYSICAL SCIENCE and LAB ELECTIVE (SEE LIST)	4
HUMANITIES ELECTIVES (SEE LIST)	3
SOCIAL/BEHAVIORAL SCIENCE ELECTIVES (SEE LIST)	3
TERM 3	
COMM 1130 or COMM 2221	3
BIOLOGICAL/PHYSICAL SCIENCE and LAB ELECTIVE (SEE LIST)	4
FINE ARTS ELECTIVE (SEE LIST)	3

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ARTS AND SCIENCES ELECTIVE	3
TERM 4	
ARTS AND SCIENCES ELECTIVE	9
ARTS AND SCIENCES ELECTIVE (Foreign language suggested. Fren/Span)	3-4
TERM 5	
ARTS AND SCIENCES ELECTIVES	10-12

Associate of Arts in General Studies..... 60 *Minimum*

**** See page 57 for information on course categories.***

APPROVED ELECTIVES

BIOLOGICAL /PHYSICAL SCIENCE ELECTIVES

ASTR 1110/1192 Introduction to Astronomy II and Astronomy Lab	4
BIO 1010/1092 or 1410/1492	4
CHEM 1410/1492, 1710/1792, 1810/1892	4
PHYS 1510/1592, 1610/1692, 1710/1792, 1810/1892	4

FINE ARTS

ARTH 1101, 2201, 2202	3
MUS 1139, 1140	3
THEA 1122	3

LANGUAGE

FREN/SPANISH/ARABIC/PORTUGUESE/GERMAN	3-4

HUMANITIES

ENG 1150 Study of Literature	3
HIST 1101, 1102, 1161, 1162, 2260	3
PHIL 1110 Introduction to Philosophical Thought	3
RLGN 1107 Living World Religions	3

MATH

MATH Elective 1315, 1320, 1330, 1415, 1460 (or higher calculus)	3

SOCIAL /BEHAVIORAL SCIENCE

ANTH 1101, 1110, 1130	3
ECON 2200, 2201	3
PSCI 1101, 2200, 2220, 2240	3
PSY 1105 Introduction to Psychology	3
SOC 1101 Introduction to Sociology	3

GEOGRAPHIC INFORMATION TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3340 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/hwps/index.php

- **Associate of Applied Science Degree in Geographic Information Technology**
- **Certificate of Completion in Geographic Information Technology**

PROGRAM DESCRIPTION

Students will study Geographic Information Systems (GIS) and related geospatial technologies including satellite-based mapping systems, remote sensing, photogrammetry, and land survey. Practical, lab-based applications are emphasized. Both the certificate and degree options are offered as stand alone choices for the student. Additionally, completion of the introductory certificate courses can be the foundation for the more rigorous associate degree curriculum.

SPECIAL REQUIREMENTS

The technologies taught in this program are based fundamentally on computer software applications. Students should be willing to spend a good deal of time working with computers and associated equipment. Some field work is also required.

CAREER AND EDUCATIONAL OPPORTUNITIES

The geospatial industry has been identified by the Department of Labor as a high-growth emerging industry. GIS and related software and technologies are commonly used by numerous government and private organizations, and there are a wide range of fields, including land survey, environmental, land management, business, and others in which degree and certificate graduates can find employment. Those wishing to pursue additional academic degrees may transfer to the UNM or NMSU Geography programs.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 1310 Intermediate Algebra or College Level Math score of	60
RDG 0950 Reading and Critical Thinking	80
IT 1010 Introduction to Computers	

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CAD 1001 Basics of CAD	1
ENG 1101 College Writing	3
GIS 1001 Introduction to GIS	3
MATH 1315 College Algebra	3
TERM 2	
CIS 1207 Programming Logic and Design	3
GEOG 1101 Physical Geography	3
Or	
GEOG 1102 Human Geography	
CM 2205 Construction Surveying	3
MATH 1410 Trigonometry	3
TERM 3	
GIS 1005 CAD for GIS/Surveying	3
CIS 1513 Database Design and Introduction to SQL	3
GEOG 2275 Cartography	3
GIS 1010 Remote Sensing	3

Certificate in Geographic Information Technology.....34

TERM 4	
CIS 2520 Introduction to SQL (Structured Query Language)	3
CIS 1284 .NET I/Visual Basic	3
Or	
CIS 1275 C++ Programming I	
Or	
CIS 1250 Introduction to Python	
GIS 2001 GIS Software Applications I	3
Approved Electives (SEE LIST)	3
TERM 5	
Approved Electives (SEE LIST)	9
GIS 2999 GIS Software Applications II	3
GIS 2005 Introduction to 3D Computer Visualization Techniques	3

Associate of Applied Science in Geographic Information Technology.....61

APPROVED ELECTIVES

CIS 1710 Beginning XHTML	1
ESH 2011 Watershed Protection	3
ESH Special Topics	1-6
FS 1504 Wildland Fire Fighting	3
FS Topics in Fire Science	1-6
GEOG 2201 World Regional Geography	3
GEOG Topics in Geography	3
GIS Topics in GIT	1-6
GIS 2095-GIS 2098 GIS Classes	1-6
MATH 1310 through MATH 2996 math courses	1-6
PHIL 1156 Logic and Critical Thinking	3
SUR 1010 Introduction to Photogrammetry	3
SUR 1015 Public Lands Survey System Boundaries	3
SUR 1017 Traffic Control and NSPS Survey Technician Certification Prep	2
SUR 1096 Special Topics	1-6
CSE 1000 or higher	1

**** See page 57 for information on course categories.***

GEOMATICS TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3340 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

■ **Certificate of Completion in Geomatics**

PROGRAM DESCRIPTION

Geomatics refers to the gathering and interpretation of spatial data. The program combines Geographic Information Systems (GIS), satellite based mapping technologies and land survey techniques to teach the skills commonly used by mapping and surveying technicians. The Geomatics Certificate is designed as a 36-credit hour program that encompasses the core of the National Society of Professional Surveyors' technician certification.

SPECIAL REQUIREMENTS

The technologies taught in this program are based fundamentally on computer software applications. Students should be willing to spend a good deal of time working with computers and associated equipment. In addition, field work is required.

CAREER AND EDUCATIONAL OPPORTUNITIES

The Geomatics Certificate is designed to fill the needs of an increasingly geospatial technology-literate survey community. Graduates from the certificate may sit for the National Society of Professional Surveyors Technician Certification exam. Successful passage of this exam confers a credential for employment as a survey technician for government or private firms. Those wishing to pursue higher degrees and licensure could move on to the 4-year Survey program at NMSU.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 1310 Intermediate Algebra or College Level Math score of	60
RDG 0950 Reading and Critical Thinking	80
IT 1010 Introduction to Computers	

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CAD 1001 Basics of CAD	1
ENG 1101 College Writing	3
GIS 1001 Introduction to GIS	3
MATH 1315 College Algebra	3
TERM 2	
GIS 1005 CAD for GIS/Surveying	3
GIS 1010 Remote Sensing	3
MATH 1410 Trigonometry	3
CM 2205 Construction Surveying	3
TERM 3	
Approved Elective (SEE LIST)	6-8
SUR 1015 Public Lands Survey System Boundaries	3
SUR 1017 Traffic Control and NSPS Survey Technician Certification Prep	3

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APPROVED ELECTIVES

ARDR 2096 Special Topics	1-7
CM 1105 Construction Detailing	3
GEOG 1101 Physical Geography	3
GEOG 2275 Cartography	3
GIS 2096 Topics	1-6
GIS 2097 Independent Study	1-6
GIS 2098 Internship	3
GIS 2095 Cooperative Education	3
MATH 1310 Intermediate Algebra	4
SUR 1010 Introduction to Photogrammetry	3
SUR 1096 Topics	1-6

**** See page 57 for information on course categories.***

HEALTH INFORMATION TECHNOLOGY

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-3905.

cnm.edu/depts/hwps/progs

■ **Associate of Applied Science Degree in Health Information Technology**

PROGRAM DESCRIPTION

The Health Information Technology (HIT) associate of applied science degree program provides students the opportunity to gain the knowledge and technical skills necessary for managing health information within the health care delivery system. Students will study: anatomy and physiology; medical terminology; diseases; pharmacology and laboratory procedures; the scope of the health information management system; the origin, use, content and format of health records and release of information; ICD-9-CM and CPT coding; health care reimbursement; legal/ethical aspects; data analysis, quality and supervision in health information.

The HIT program is an associate of applied science degree and is designed for the working student. Many students are part-time and carry 6–7 credit hours per term while continuing to work full time. The HIT program courses are offered evenings and weekends. Some HIT courses are offered every other term or once a year based on demand.

The HIT program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). For further information on accreditation, contact CAHIIM at 233 N. Michigan Ave., Suite 2150, Chicago, IL 60601-5519, (312) 233-1100. Upon graduation, students are eligible to take the national certification exam. Successful candidates earn the professional credential of Registered Health Information Technician (RHIT).

SPECIAL REQUIREMENTS

Students are encouraged to enroll in arts and sciences courses prior to admission to the program. Two unpaid clinical experiences must be completed during the program. Volunteer hours are recommended in addition to Health Information Practicum I and II. BIO 1310/1392 must be no more than 10 years old at the time of admission into the program.

The specific requirements that must be met before entering the HIT program include:

- Official transcripts must be on file in the CNM Records Office. High school diploma or GED score is required. College transcripts that are to be evaluated for transfer credit should be requested as soon as possible.
- Completion of program prerequisite courses.
- Completion of HIT 1010 – Introduction to Health Information Technology.
- Completion of HIT 1030 – Health, Data, Content and Structure.
- An information interview with the HIT program director.

CAREER AND EDUCATIONAL OPPORTUNITIES

The health information field has opportunities in hospital medical records/health information departments, clinics, physician offices, long-term care facilities, ambulatory care facilities, managed care organizations, insurance agencies, state health departments, the federal government, entrepreneurship and private industry. Additional career information is available from the American Health Information Management Association at ahima.org.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

**** See page 57 for information on course categories.***

SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BIO 1310 Human Anatomy and Physiology for Non-Majors	3
BIO 1392 Human Anatomy and Physiology for Non-Majors Laboratory	1
BA 1131 Business Interpersonal Skills	3
HIT 1010 Introduction to Health Information Technology	1
HIT 1020 Medical Terminology and Anatomy	3
IT 1010 Introduction to Computers	3
TERM 2	
ENG 1101 College Writing	3
HIT 1030 Health Data Content and Structure	4
HIT 1040 Principles of Diseases	3
HIT 1051 Pharmacology and Laboratory Procedures	3
TERM 3	
HIT 1060 Health Information Management Systems	3
HIT 1070 Legal/Ethical Aspects of Health Information	3
HIT 1090 Health Information Practicum I	1
HIT 2010 Classification of Diseases I (ICD-CM)	3
MATH 1210 or higher (except MATH 2110 and 2096)	3 or 4
TERM 4	
ENG 1119 Technical Communications	3
HIT 2020 Classification of Diseases II	3
HIT 2040 Health Information Data Analysis	3
HIT 2050 Health Information Supervision	3
HIT Elective	2
TERM 5	
HIT 2030 CPT Coding	3
HIT 2060 Reimbursement Methodologies	2
HIT 2290 Health Information Practicum II	2
HIT 2999 Health Information Technology Seminar	1
Or	
HIT 2097 Independent Study	
COMM 1130 Public Speaking	3
Or	
COMM 2221 Interpersonal Communication Studies	
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCE ELECTIVE	3

Associate of Applied Science in Health Information Technology.....68-69

APPROVED ELECTIVES

BA courses not required for degree	1-3
CIS courses	1-3
HIT 2070 Coding Applications	2
HIT 2090 Medical Coding Practicum I	2
HIT 2190 Medical Coding Practicum II	2
HIT 1096 or 2096 or higher Topics	1-3
CSE 1101 College Success or higher	1-3
OTEC 1175 Computers in the Medical Office	2

See page 57 for information on course categories.

HEALTH UNIT COORDINATOR

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-4127.

cnm.edu/depts/hwps/progs

■ Certificate of Achievement in Health Unit Coordinator

PROGRAM DESCRIPTION

The Health Unit Coordinator Certificate program prepares students to perform secretarial and management skills in hospitals, long-term care facilities or out-patient clinics. Transcribing doctors' written orders, typing, ordering supplies, answering the telephone, working with computers and communicating with patients, visitors and staff are typical activities.

SPECIAL REQUIREMENTS:

There is a program fee that covers the cost of a uniform top, hospital parking permits, nametag, criminal background check, drug screening and health tests. Neutral-colored slacks or skirts are required for clinicals but are not covered by the fee. The program fee is published in the *Schedule of Classes*. Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.

All students will be required to have proof of CPR, a PPD and current immunizations (including MMR, Varicella and DTP) prior to clinicals.

Criminal Background/Drug Screen: Students are required to undergo a routine drug screening and a state and federal criminal background check with fingerprints prior to starting the program or prior to beginning their clinical experiences. For information on the criminal background check, please note the complete description on page 56 under the School of Health, Wellness & Public Safety description. Students with a disqualifying conviction will not be allowed to start or remain in the program; additionally any student found to have a disqualifying conviction will not be allowed to register for any Allied Health or Nursing programs.

Students interested in certain School of Health, Wellness & Public Safety programs must be in good physical and psychological health. Some programs require documentation of a recent health screening from a licensed health care provider confirming the ability to safely perform program specific activities and lift a minimum of 50 pounds. Reasonable accommodations are made for those students with disabilities. However, some disabilities may prohibit students from completing program specific competencies or gaining employment. Students with a disability that may interfere with completing program competencies, which may include providing safe patient care, are advised to contact the School of Health, Wellness & Public Safety Office at (505) 224-4111 for more information.

CAREER AND EDUCATIONAL OPPORTUNITIES

Job placement after graduation is excellent in various locations such as hospitals and physicians offices.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
High School diploma or equivalent	
MATH 0750 Basic College Mathematics or Arithmetic score of	57
ENG 0750 Practical Writing	69
RDG 0750 Reading Improvement	69
IT 0850 Basic Keyboarding/Computer Skills (or program director approval)	

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED COURSES

COURSE	CREDIT HOURS
TERM 1	
HUC 1010 Health Unit Coordinator Theory and Lab	8
HUC 1090 Health Unit Coordinator Clinical Practice	3

Certificate in Health Unit Coordinator 11

**** See page 57 for information on course categories.***

HOSPITALITY AND TOURISM

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

- **Associate of Arts Degree in Hospitality and Tourism**
- **Certificate of Completion in Hospitality and Tourism**

PROGRAM DESCRIPTION

Hospitality and Tourism is an associate of arts degree designed to substantially fulfill the freshman and sophomore course requirements for admission to bachelor's degree programs in Hospitality Management at New Mexico State University and other colleges and universities. The degree's general education curriculum is accepted for transfer toward the general education core.

Students are encouraged to communicate with the associate dean or program chair as well as with admission advisors at the college or university where they plan to complete the bachelor's degree. Courses taken with the credit/no credit option, transfer credits and non-traditional credits that have been accepted by CNM may not be accepted by the transfer institution. Many four-year institutions have minimum grade point average requirements for admission as well as a requirement that all coursework be completed with grades of C or better.

The Hospitality and Tourism degree provides the foundational coursework for hospitality management. An overview of the hospitality industry and various employment and educational opportunities will be explored. In addition, students study hospitality operations, marketing, event planning, food safety and production. Organizational behavior, human resources, leadership and management skills will be developed and applied in theory and lab settings

CAREER AND EDUCATIONAL OPPORTUNITIES

Jobs are available in lodging, casinos, restaurants, resorts, cruise ships, event planning, convention services, sales and marketing, bed and breakfasts, and other areas. Types of employment range from front office, marketing and guest services to management and leadership positions. Many hospitality careers have competitive benefits and wages with the opportunity for rapid advancement.

NMSU: Students should contact NMSU's HRTM Department at (575) 646-5995 one to two semesters prior to their expected start date in order to begin the application process.

ENMU: Students should contact ENMU's College of Business at (575) 562-2342 for more information.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
RDG 0950 Reading and Critical Thinking	80
Math1210 Methods of Problem Solving	
Or	
Math 1310 Intermediate Algebra	60

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
HT 1101 Introduction to Tourism	3
IT 1010 Introduction to Computers	3
ENG 1101 College Writing	3
MATH 1320 Survey of Mathematics	3
HT 1106 Hotel Operations	3
TERM 2	
ENG 1119 Technical Communications	3
HT 2141 Marketing of Hospitality Services	3
BA 2238 Human Resource Management	3
BA 2234 Organizational Behavior	3
**SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3
TERM 3	
ACCT 1111 Accounting IA	3
HT 2201 Hospitality Operations Management	3
HT 2232 Event Planning	3
BIOLOGICAL/PHYSICAL SCIENCE WITH LAB (SEE LIST)	4
**HUMANITIES/FINE ARTS ELECTIVE (SEE LIST)	3
TERM 4	
CULN 1103 Safety and Sanitation Principles	3
CULN 1010 Food Production and Service Fundamentals	3
ACCT 1112 Accounting IB	3
COMM 1130 Public Speaking	3
Or	
COMM 2221 Interpersonal Communication Studies	
**SOCIAL/BEHAVIORAL SCIENCE OR HUMANITIES/FINE ARTS ELECTIVE (SEE LIST)	3
TERM 5	
HT 2235 Leadership and Management in the Hospitality Industry	3
**SOCIAL/BEHAVIORAL SCIENCE OR HUMANITIES/FINE ARTS ELECTIVE (SEE LIST)	6
BIOLOGICAL/ PHYSICAL SCIENCE WITH LAB (SEE LIST)	4

Associate of Arts in Hospitality and Tourism 74

**** 6-9 CREDIT HOURS REQUIRED IN EACH SOCIAL/BEHAVIORAL SCIENCE AND HUMANITIES/FINE ARTS FOR A TOTAL OF 15 CREDIT HOURS.**

See page 57 for information on course categories.

APPROVED ELECTIVES

BIOLOGICAL/PHYSICAL SCIENCE

ASTR 1192 Astronomy Laboratory 1
ASTR 1110 Introduction to Astronomy II 3
BIO 1010 Biology for Non-Majors 3
BIO 1092 Biology for Non-Majors Laboratory 1
CHEM 1410 Intro to Chemistry 3
CHEM 1492 Intro to Chemistry laboratory 1

SOCIAL/ BEHAVIORAL SCIENCE

ECON 1101 Introduction to Economics 3
ANTH 1130 Cultures of the World 3
GEOG 2201 World Regional Geography 3
PSY 1105 Introduction to Psychology 3
SOC 1101 Introduction to Sociology 3
PSCI 1110 The Political World 3

HUMANITIES/FINE ARTS

ARTH 1101 Introduction to Art 3
ARTH 2201 History of Art I 3
ARTH 2202 History of Art II 3
ENG 2221 Creative Writing 3
HIST 1101 Western Civilization I 3
HIST 1102 Western Civilization II 3
HIST 1161 History of the United States I 3
HIST 1162 History of the United States II 3
MUS 1139 Early Music Appreciation 3
PHIL 1110 Introduction to Philosophical Thought 3
PHIL 1102 Ethics in Society 3
RLGN 1107 Living World Religions 3

HOSPITALITY AND TOURISM CERTIFICATE

The Hospitality and Tourism Certificate of Completion is a two-term, 27-30 credit-hour program that prepares students for careers in the dynamic hospitality and tourism industry. The courses provide a solid foundation of skills required in the hospitality industry. Students will study hospitality operations, marketing, event planning, customer service and interpersonal relations. An overview of the hospitality industry and various employment and educational opportunities will also be explored.

Jobs are available in lodging, casinos, restaurants, resorts, cruise ships, event planning, convention services, sales and marketing, bed and breakfasts, and other areas. Types of employment range from front office, marketing and guest services to entry level supervision. Many hospitality careers have competitive benefits and wages with the opportunity for rapid advancement. Students wanting to continue their education beyond the certificate should meet with the Program Chair for more information about Hospitality and Tourism associate of arts degree and other 2+2 transfer programs.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0750 Practical Writing	69
RDG 0750 Reading Improvement	69

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
HT 1101 Introduction to Tourism	3
IT 1010 Introduction to Computers	3
BA 2234 Organizational Behavior	3
Or	
BA 1131 Business Interpersonal Skills	
HT 1106 Hotel Operations	3
TERM 2	
ENG 1101 College Writing	3
Or	
BA 1121 Business English	
HT 2141 Marketing of Hospitality Services	3
HT 2201 Hospitality Operations Management	3
HT 2232 Event Planning	3
Approved Elective	3-6

Certificate in Hospitality and Tourism 27-30

APPROVED CERTIFICATE ELECTIVES

HT courses (except those required for certificate) 3
BA courses (except those required for certificate) 3-6
CULN courses 3-5
ACCT courses 3
CIS courses 3
OTEC 1112 Office Accounting Procedures 3
SPAN 1101 Beginning Spanish or higher 3-4
CSE 1101 College Success or higher 3

See page 57 for information on course categories.

INFORMATION TECHNOLOGY ACADEMY

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

DESCRIPTION

CNM has organized information technology programs into the Information Technology (IT) Academy. The IT Academy offers students four pathways: networking, programming, digital media and software applications and support. These pathways cross-cut skills found in related IT occupations, aligning core knowledge and skills with industry standards and expectations.

The chart below cross-references existing programs of study with appropriate pathways. (Page numbers for more information on each program of study are listed.)

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

INFORMATION TECHNOLOGY

Networking

Network Administration
Degree concentration under
Computer Information Systems
(see page 93)

System Administration
Degree concentration under
Computer Information Systems
(see page 93)

Programming

Computer Programming
Degree concentration under
Computer Information Systems
(see page 93)

Database Technology
Degree concentration under
Computer Information Systems
(see page 93)

Digital Media

Computer Animation
Degree concentration under
Computing Technology
(see page 98)

Digital Media
Degree concentration under
Computer Information Systems
(see page 93)

Web Technology
Degree concentration under
Computer Information Systems
(see page 93)

Software Applications and Support

Computer Information Systems
Degree and Certificate (see page 93)

Health Information Technology
Degree (see page 138)

Office Technology
Degree and Certificate (see page 167)

Software Systems and Applications
Degree concentration under
Computer Information Systems
(see page 93)

National Certification Preparation

A+ Certification
Certified Internet Webmaster (CIW)
CISCO Certified Network Associate (CCNA)
Microsoft Certified Technology Specialist (MCTS)
Microsoft Certified IT Professional (MCTIP)
Microsoft Office Specialist (MOS) – Pending curriculum update
Oracle Certified Professional (OCP)
Registered Health Information Technician

See page 57 for information on course categories.

INTEGRATED STUDIES

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

■ Associate of Applied Science Degree in Integrated Studies

PROGRAM DESCRIPTION

The Associate of Applied Science in Integrated Studies provides a degree designed for students who want to package a variety of job-related skills in order to achieve advancement and/or marketability in the workplace. This degree is not intended for transfer. Students with multiple credit hours may benefit from this degree path. This program cannot be a student's second or subsequent degree.

The program includes classroom, studio, laboratory instruction and distance learning.

This Associate of Applied Science Degree is not intended to transfer to a four-year institution. See Academic Advisement and Career Development for information on transfer degrees. Program information is available from the Business & Information Technology Office at (505) 224-3811.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
RDG 0950 Reading and Critical Thinking	80
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
IT 1010 Introduction to Computers	3
MATH 1210 Methods of Problem Solving or higher (except MATH 2110 and 2096)	3-4
Or	
*BIOLOGICAL/PHYSICAL SCIENCE ELECTIVE	
COMMUNICATION, ENGLISH OR JOURNALISM Course	3
*SOCIAL/BEHAVIORAL SCIENCE, FINE ARTS, OR HUMANITIES ELECTIVE	3
TERM 2	
*CHOOSE ONE COURSE FROM HUMANITIES, BIOLOGICAL/PHYSICAL SCIENCE, FINE ARTS, OR SOCIAL/BEHAVIORAL SCIENCE, COMMUNICATION, ENGLISH OR JOURNALISM	3-4
**UNSPECIFIED Electives	6
ENG 1101 College Writing	3
TERM 3	
**UNSPECIFIED Electives	12
TERM 4	
**UNSPECIFIED Electives	12
TERM 5	
**UNSPECIFIED Electives	12

****UNSPECIFIED ELECTIVES: ANY COURSE NUMBERED 1000 OR ABOVE.**

Associate of Applied Science in Integrated Studies 60-62

**** See page 57 for information on course categories.***

JUDICIAL STUDIES

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-3854.

cnm.edu/depts/hwps/progs

- **Certificate of Achievement in Judicial Studies Fundamentals**
- **Certificate of Completion in Judicial Studies**

PROGRAM DESCRIPTION

Students study the operation of New Mexico municipal, magistrate, metropolitan, district and appellate courts, as well as federal and tribal courts, ethics of court staff and other general coursework. The classes are taught in conjunction with the Judicial Education Center.

Current New Mexico State Court employees could be eligible for payment of Judicial Studies courses by the Judicial Education Center. Contact Chair of Judicial Studies for details.

SPECIAL REQUIREMENTS

Students with a criminal background may have limited employment opportunities. Students should contact appropriate agencies and employers for hiring and employment practices.

CAREER AND ADVANCEMENT OPPORTUNITIES

The Certificate of Completion in Judicial Studies has been recognized by the Administrative Office of the Courts as being equal to one year of experience for job hiring or advancement purposes. Types of jobs include court clerk/judicial specialist, court administrator and other court-related positions.

The Certificate of Achievement in Judicial Studies Fundamentals will allow the employee to show competency in core subjects.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

SPECIAL NOTES

The Certificate of Achievement in Judicial Studies Fundamentals also applies toward the Certificate of Completion in Judicial Studies.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

JUDICIAL STUDIES FUNDAMENTALS CERTIFICATE

SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
JUD 1110 Introduction to Judicial Studies	3
JUD 1120 Introduction to Court Operations and Ethics	2
TERM 2	
JUD 2110 Principles of Court Management	3
JUD 2095 Cooperative Education	4
Or	
JUD 2098 Internship	
Certificate in Judicial Studies Fundamentals	**12**

See page 57 for information on course categories.

JUDICIAL STUDIES CERTIFICATE

SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ENG 1101 College Writing	3
IT 1010 Introduction to Computers	3
JUD 1110 Introduction to Judicial Studies	3
JUD 1120 Introduction to Court Operations and Ethics	2
Approved Elective (SEE LIST)	3
TERM 2	
ACCT 1109 Business Math	3
Or	
MATH 1210 Methods of Problem Solving or higher (except MATH 2096 and 2110)	
BA 1121 Business English	3
Or	
COMM 2232 Business and Professional Communication Studies	
JUD 2110 Principles of Court Management	3
JUD 2095 Cooperative Education	4
Or	
JUD 2098 Internship	
Approved Elective (SEE LIST)	3

Certificate in Judicial Studies 30-31

APPROVED JUDICIAL STUDIES ELECTIVES

ACCT 1111 Accounting IA 3
BA courses (except BA 2226, 2270, 2271, 2272, 2273, 2274, 2275, 2278, 2280) 3
CJ 1007 Criminal Procedure 3
Or
PL 2130 Criminal Litigation
PL 1110 Introduction to Paralegal Studies 3
PL 1120 American Law and Ethics 3
Or
PHIL 1102 Ethics in Society
Or
PHIL 2245 Business Ethics
Or
PHIL 2246 Environmental Ethics
Or
PHIL 2247 Biomedical Ethics
Or
PHIL 2248 Ethics of Technology
PL 1140 Legal Research and Writing I 3
PL 2120 Civil Litigation 3
PL 2415 Business Organizations 3
PL 2420 Contract Law 3
PL 2455 Employment Law 3
SOC 2205 Crime, Public Policy and the Criminal Justice System 3
SOC 2212 Juvenile Delinquency 3
SOC 2215 Criminology 3

See page 57 for information on course categories.

LANDSCAPING

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

■ Certificate of Completion in Landscaping

PROGRAM DESCRIPTION

At the time of publication, this program was undergoing curriculum redesign. Once completed, the program will be available online at cnm.edu/course catalog/index.php. The redesign will affect students who enter the program on or after fall 2009. For current students who have formally declared this major, refer to the program requirements listed in the 2007-2009 catalog.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

**** See page 57 for information on course categories.***

LIBERAL ARTS

School of Communication, Humanities & Social Sciences

CONTACT INFORMATION

Curriculum Chair: (505) 224-3588, Associate Dean: (505) 224-3588

■ Associate of Arts Degree in Liberal Arts

PROGRAM DESCRIPTION

The Associate of Arts in Liberal Arts is both a stand-alone degree and a transfer degree. For students transferring to four-year schools, it covers the curriculum needed for the first two years of baccalaureate study. The degree includes a general education curriculum of 35 credit hours, which is accepted by all New Mexico state colleges and universities as the general education core for degree completion. Liberal arts is also home to the General Honors program, which transfers to the University of New Mexico's General Honors program. Depending on the courses selected, the program includes classroom, studio, and laboratory instruction, with the option for distance learning for many classes. The AA in Liberal Arts is designed to accommodate diverse educational interests, with courses taught in the day, in the evening, and on weekends. The liberal arts courses also support the program requirements of other CNM academic schools.

SPECIAL REQUIREMENTS

Students must complete a certain number of credit hours in each discipline. There are three specific requirements all degree candidates must complete: English 1102 (prerequisite ENG 1101), one Communication course (either COMM 1130 or COMM 2221) and any Math course with a prerequisite of Math 1210 or higher.

The term "applied arts" refers to all art studio courses (those with an ARTS designation) and the following theatre courses: THEA 1119, THEA 1120, THEA 1121, and THEA 2222.

Students must meet the program qualifications to enroll in the General Honors program. Students must have:

- Successfully completed 9 hours of arts and sciences course work
- Have a cumulative GPA of at least 3.2
- Have earned at least a B in English 1101

Students interested in the honors program should contact the CHSS office or see an advisor before registering in an honors course.

CAREER AND EDUCATIONAL OPPORTUNITIES

Liberal Arts curriculum courses will transfer to other colleges and universities. Specifically, CNM and UNM have an approved 2+2 agreement for Liberal Arts transfer. Please visit cnm.edu/depts/academicaffairs/oeu/Articulation_Agreements/CNM_UNM_Liberal_arts0001.pdf for information.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

SPECIAL NOTES

Additional courses are available to enhance this program of study. Unless otherwise noted, Topics courses (numbered 1096 or 2096) may be used for degree electives. Contact the program chair or director for further information.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 1210 OR 1310: or College Level Math score of	60
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ENG/COMM COURSE I (SEE LIST)	3
IT 1010 Introduction to Computers	3
SOCIAL/BEHAVIORAL SCIENCE COURSE I (SEE LIST)	3
HUMANITIES COURSE I (SEE LIST)	3
TERM 2	
ENG/COMM COURSE II (SEE LIST)	3
MATH COURSE (SEE LIST)	3-4
SOCIAL/BEHAVIORAL SCIENCE COURSE II (SEE LIST)	3
HUMANITIES COURSE II (SEE LIST)	3
FINE ARTS/LANGUAGE COURSE I (SEE LIST)	3-4
TERM 3	
ENG/COMM COURSE III (SEE LIST)	3
SOCIAL/BEHAVIORAL SCIENCE COURSE III (SEE LIST)	3
FINE ARTS/LANGUAGE COURSE II (SEE LIST)	3-4
BIOLOGICAL/PHYSICAL SCIENCE COURSE I (SEE LIST)	3-4
Elective (SEE LIST)	3-4
Elective (SEE LIST)	3-4
TERM 4	
HUMANITIES COURSE III (SEE LIST)	3
FINE ARTS/LANGUAGE COURSE III (SEE LIST)	3-4
BIOLOGICAL/PHYSICAL SCIENCE COURSE II (SEE LIST)	3-4
Elective (SEE LIST)	3-4
Elective (SEE LIST)	3-4
Elective (SEE LIST)	3-4

Associate of Arts in Liberal Arts 64

APPROVED COURSE OPTIONS

ENGLISH/COMMUNICATION (COMM, ENG, JOUR) (9 CREDITS IN AT LEAST TWO DISCIPLINES)

ENG 1102 Analytic and Argumentative Writing (REQUIRED COURSE)
COMM 1130 OR COMM 2221 (EITHER COURSE REQUIRED)

MATHEMATICS (3-4 CREDITS)

MATH 1315 OR HIGHER (EXCEPT MATH 2110 OR 2096)

SOCIAL /BEHAVIORAL SCIENCE (9 CREDITS IN AT LEAST TWO DISCIPLINES)

ANTH, ECON, GEOG, GNHN, PSCI, PSY, SOC

HUMANITIES (9 CREDITS IN AT LEAST TWO DISCIPLINES)

CST, ENG (LITERATURE), GNHN, HIST, HUM, PHIL, RLGN

**** See page 57 for information on course categories.***

FINE ARTS (3-6 HOURS REQUIRED)
ARTH, ARTS, MUS, THEA (ONLY 3 CREDITS IN APPLIED ARTS ALLOWED)

LANGUAGE (3-6 CREDITS REQUIRED)
FREN, SPAN, ARBC, PORT, GER

BIOLOGICAL PHYSICAL SCIENCE (7-8 CREDITS REQUIRED)
ASTR, BIO, CHEM, PHYS (AT LEAST ONE LAB REQUIRED)

LIBERAL ARTS ELECTIVES (9-15 CREDITS REQUIRED)
*ANY ARTS AND SCIENCES COURSES (1 CREDIT OF PHYS ED MAY BE USED)

See page 57 for information on course categories.

MACHINE TOOL TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

■ **Certificate of Completion in Machine Tool Technology**

PROGRAM DESCRIPTION

Students will study hands-on machine tool technology, which includes blueprint reading mathematics, metallurgy and other general course work. Classes include classroom and lab time. Students will safely operate a diverse selection of Manual and Automated machine tools. Students will also use computers and three different Computer Aided Design software programs, CAD/CAM to draw machine parts from two- dimensional drawings to three-dimensional automated tool paths. Students will successfully manufacture parts using Computer-Numerical Controlled (CNC) machine tools. Upon completion of this program, graduates will be eligible for entry level machinist positions in a wide variety of industrial applications.

SPECIAL REQUIREMENTS

Students are required to purchase textbooks, tools and personal safety equipment.

CAREER AND EDUCATIONAL OPPORTUNITIES

One hundred percent of the 2007-08 graduating class obtained employment in the metals technology field. Jobs are available in machine shops involved in research and development for the aerospace industry and scientific community. The associate of applied science degree prepares graduates for career advancement and earning potential.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0750 Basic College Math or Arithmetic score of	57
RDG 0750 Reading Improvement	69

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
MATT 1001 Metals Math I	2
MATT 1005 Metals Blueprint Reading I	2
MATT 1092 Basic Lathe Principles	2
MATT 1192 Basic Milling Machine Principles	2
MATT 1292 Basic Supporting Machine Tool Principles	2
MATT 1392 Basic Measurement and Inspection	2
TERM 2	
MATT 1030 Metals Math II	2
MATT 1035 Metals Blueprint Reading II	2
MATT 1492 Intermediate Lathe Principles	2
MATT 1592 Intermediate Milling Machine Principles	2
MATT 1692 Intermediate Supporting Machine Tool Principles	2
MATT 1792 Computer Numerical Control I	2
TERM 3	
MATT 1065 Metallurgy	2
MATT 2092 Advanced Lathe Principles	2
MATT 2005 Machine Tool Technology CAD/CAM	2
MATT 2192 Advanced Milling Machine Principles	2
MATT 2292 Advanced Supporting Machine Tool Principles	2
MATT 2392 Computer Numerical Control II	2

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**** See page 57 for information on course categories.***

MANUFACTURING TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3340.

PROGRAM DESCRIPTION

At the time of publication, this program was undergoing curriculum redesign. Once completed, the program will be available online at cnm.edu/course catalog/index.php. The redesign will affect students who enter the program on or after fall 2009. For current students who have formally declared this major, refer to the program requirements listed in the 2007-2009 catalog.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

**** See page 57 for information on course categories.***

MECHANICAL TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

- **Associate of Applied Science Degree in Mechanical Technology (Concentrations in Air Conditioning, Heating and Refrigeration (ACHR) and Plumbing)**
- **Certificates of Completion in Air Conditioning, Heating and Refrigeration (ACHR) and Plumbing**

PROGRAM DESCRIPTION

The Mechanical Technology program offers courses of study concentrating in Air Conditioning, Heating and Refrigeration (ACHR) and Plumbing (PLMB). ACHR students are to take Environmental Protection Agency (EPA) and Industry Competency Exam (ICE) certification exams. Students will meet in classrooms and labs and at off-campus construction sites.

SPECIAL REQUIREMENTS

Students are required to purchase textbooks, hand tools, personal protective equipment and pay for any certification testing fees.

Fees: Course fees are published in the *Schedule of Classes*. These fees cover the cost of tools required for lab activities.

CAREER AND EDUCATIONAL OPPORTUNITIES

Over 90 percent of ACHR and Plumbing certificate graduates obtained jobs in 2005–06. Graduates are employed by local service and installation contractors as well as local manufacturers, hospitals and facilities. Both ACHR and Plumbing students are prepared for the New Mexico State Journeymen Certificate exam.The associate's degree prepares students for further studies that will ultimately qualify them for faster career advancement and greater earning potential.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
CERTIFICATE	
RDG 0750 Reading Improvement	69
MATH 0550 Basic Mathematics or Arithmetic score of	31
DEGREE	
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

AIR CONDITIONING, HEATING AND REFRIGERATION (ACHR)

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ACHR 1105 Refrigeration Fundamentals	2
ACHR 1110 Basic Electricity	2
ACHR 1115 Refrigerant Management	2
ACHR 1120 Motors and Controls	2
ACHR 1125 Refrigeration Applications	2
ACHR 1130 Code and Safety Requirements I	1
ACHR 1135 Commercial Refrigeration	2
TERM 2	
ACHR 1205 Air Conditioning	2
ACHR 1210 Air Conditioning Control	2
ACHR 1215 System Design	3
ACHR 1225 Heating Systems	2
ACHR 1230 Heating Control Systems	2
ACHR 1220 Installation and Retrofit of Heat/Cooling System	2
TERM 3	
ACHR 1306 Advanced Hydronics	2
ACHR 1315 Hot Water and Steam Generation Systems	2
ACHR 1320 Control I	2
ACHR 1325 Chilled Water Systems	2
ACHR 1335 Controls II	2
ACHR 1340 Code and Safety Requirements II	1
ACHR 1345 Controls III	2

Certificate in Air Conditioning, Heating and Refrigeration.....39

TERM 4	
PLMB 1105 Plumbing and Safety Fundamentals	3
PLMB 1110 Blueprint Reading	2
PLMB 1120 Drain, Waste and Vent I	2
PLMB 1205 Backflow Prevention	2
PLMB 1210 Commercial Plumbing	2
IT 1010 Introduction to Computers	3
TERM 5	
ENG 1101 College Writing	3
COMM 1130 or higher (excluding COMM 2270 and 2282)	3
MATH 1210 Methods of Problem Solving or higher	3-4
PHYS 1010 Introduction to Physics or higher	3
*HUMANITIES OR SOCIAL /BEHAVIORAL SCIENCE ELECTIVE	3
ACHR 2999 ACHR Capstone Course	1

Associate of Applied Science in Mechanical Technology (Concentration in Air Conditioning, Heating and Refrigeration (ACHR)).....69-70

**** See page 57 for information on course categories.***

PLUMBING

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
PLMB 1105 Plumbing and Safety Fundamentals	3
PLMB 1110 Blueprint Reading	2
PLMB 1115 Introduction to Gas Fitting and Pipe Laying	2
PLMB 1120 Drain, Waste and Vent I	2
PLMB 1125 Drain, Waste and Vent II	2
PLMB 1130 Piping Systems	2
TERM 2	
PLMB 1205 Backflow Prevention	2
PLMB 1210 Commercial Plumbing	2
PLMB 1225 Building Maintenance and Repair	2
PLMB 1230 Hydronics and Plumbing Systems	2
PLMB 1215 Plumbing Theory and Repair	2
PLMB 1220 Plumbing Code Applications	3

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TERM 3	
ACHR 1105 Refrigeration Fundamentals	2
ACHR 1110 Basic Electricity	2
ACHR 1115 Refrigerant Management	2
ACHR 1120 Motors and Controls	2
ACHR 1125 Refrigeration Applications	2
ACHR 1135 Commercial Refrigeration	2
TERM 4	
ACHR 1205 Air Conditioning	2
ACHR 1210 Air Conditioning Controls	2
ACHR 1225 Heating Systems	2
ACHR 1230 Heating Control Systems	2
WELD 1060 Welding Skills	3
PHYS 1010 Introduction to Physics or higher	3
TERM 5	
MATH 1210 Methods of Problem Solving or higher	3-4
ENG 1101 College Writing	3
COMM 1130 or higher (excluding COMM 2270 and 2282)	3
*HUMANITIES OR SOCIAL /BEHAVIORAL SCIENCE ELECTIVE	3
IT 1010 Introduction to Computer Applications	3
PLMB 2999 Plumbing Capstone Course	1

Associate of Applied Science in Mechanical Technology (Concentration in Plumbing).....68-69

See page 57 for information on course categories.

MEDICAL CODING

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-8905.

cnm.edu/depts/hwps/progs

■ **Certificate of Completion in Medical Coding**

PROGRAM DESCRIPTION

The Medical Coding Certificate program provides students the opportunity to prepare for a future in the health care industry. Students will study anatomy and physiology, diseases, medical terminology, pharmacology and laboratory procedures, ICD-9-CM and CPT coding, reimbursement methodologies and the legal/ethical aspects of health information.

The Medical Coding program is designed for the working student. Many students are part time and carry 6–7 credit hours per term while continuing to work full time. The Health Information Technology (HIT) program courses are offered in the evening and on weekends. Some HIT courses are offered every other term or once a year based on demand.

Note: Courses in the Medical Coding program apply to the associate of applied science degree in Health Information Technology.

SPECIAL REQUIREMENTS

An interview must be scheduled with the HIT program director during the student's first term. At the time of admission into the program, BIO 1310/1392 must have been taken within the last 10 years.

CAREER AND EDUCATIONAL OPPORTUNITIES

Individuals skilled in health information coding are employed as coders for hospitals, physicians' offices, peer review organizations, health maintenance organizations, ambulatory care facilities, skilled nursing facilities, state or federal government, entrepreneurship, national coding companies or insurance companies. Coders who obtain the certificate in Medical Coding will have the ability to sit for the Certified Coding Associate (CCA) title offered through the American Health Information Management Association (AHIMA). Additional career information is available from the American Health Information Management Association at ahima.org.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
BIO 0950 Introduction to Biology	
ENG 0950 Essay Writing	85
RDG 0950 Readying and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BIO 1310 Human Anatomy and Physiology for Non-Majors	3
BIO 1392 Human Anatomy and Physiology for Non-Majors Lab	1
HIT 1010 Introduction to Health Information Technology	1
HIT 1020 Medical Terminology and Anatomy	3
IT 1010 Introduction to Computers	3
TERM 2	
HIT 1030 Health Data Content and Structure	4
HIT 1040 Principles of Diseases	3
HIT 1051 Pharmacology and Laboratory Procedures	3
HIT 2010 Classification of Diseases I (ICD-CM)	3
TERM 3	
BA 1131 Business Interpersonal Skills	3
HIT 1070 Legal/Ethical Aspects of Health Information	3
HIT 2020 Classification of Diseases II	3
OTEC 1175 Computers in the Medical Office	2
TERM 4	
HIT 2030 CPT Coding	3
HIT 2060 Reimbursement Methodologies	2
TERM 5	
HIT 2070 Coding Applications	2
Or	
HIT 2090 Medical Coding Practicum I	

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**** See page 57 for information on course categories.***

MEDICAL LABORATORY SCIENCES

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-5021.

cnm.edu/depts/hwps/progs

- **Associate of Science Degree in Medical Laboratory Technician**
- **Certificate of Achievement in Clinical Laboratory Assistant**
- **Certificate of Achievement in Phlebotomy Technician**

PROGRAM DESCRIPTION

Medical Laboratory Science programs prepare students to play a crucial role in the detection, diagnosis, and treatment of disease. Medical laboratory personnel work in clinics, hospitals, reference laboratories, and physician office labs. They safely collect, process, and analyze blood and body fluid specimens. They use microscopes, centrifuges, computerized instruments, and other sophisticated laboratory equipment. The complexity of tests performed, the level of judgment needed, and the amount of responsibility workers assume depends largely on the amount of education they have. Students study theory in the classroom, learn skills in campus labs, and complete clinical experiences in area health care facilities and labs. Upon completion of the programs, students are eligible to take national certification exams.

Medical Laboratory Technician Associate of Science Degree (MLT):

Four-term program with general education prerequisites. Medical Laboratory Technicians perform highly complex testing in the areas of clinical chemistry, hematology, immunohematology, immunology, microbiology, and urinalysis. They must exhibit high levels of judgment and responsibility. The MLT program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences: 8401 West Bryn Mawr Ave., Suite 670; Chicago, IL 60631-3415; (773) 714-8880; naacls.org.

Clinical Laboratory Assistant Certificate (CLA):

Two-term program with a phlebotomy prerequisite. Clinical Laboratory Assistants perform specimen processing and waived and moderately complex testing various areas of the lab. Requires completion of the PHLB program (or equivalent) or national phlebotomy certification.

Phlebotomy Technician Certificate (PHLB):

Twelve-week program with Accuplacer prerequisites. Phlebotomists collect and process blood specimens using approved venipuncture and capillary puncture techniques. Requires a high level of professionalism when working with patients. PHLB is also offered in a two-term format.

SPECIAL REQUIREMENTS

The MLT program begins in the fall and lasts four terms.

The CLA program begins in the fall and lasts two terms.

The PHLB program is offered every term.

Courses in Medical Laboratory Science programs must be taken sequentially with corequisites.

Criminal Background and Drug Screening: Students with a criminal background may have limited employment opportunities in healthcare and public service. Students are required to undergo a state and federal criminal background check with fingerprints prior to starting any of the programs. Students with a disqualifying conviction will not be allowed to start or remain in the programs. A routine drug screen is also required. Students with a positive drug screen will not be allowed to enter the programs. Fees for fingerprinting, criminal background check, and drug screening will apply for each program.

Physical Requirements: Students interested in the Medical Laboratory Science programs must be in good physical and psychological health. A current physical exam and vaccinations (hepatitis B, MMR, DTP, PPD and varicella) are required. Reasonable accommodations are made for those students with disabilities. Some disabilities may prohibit students from completing program specific competencies or gaining employment. Students with a disability are advised to contact the HWPS office at (505) 224-4111 for more information.

Program Fees: The fees for each program will vary and are published in the *Schedule of Classes*. Fees may include the purchase of a set of scrubs, a nametag, hospital parking permits, criminal background check, drug screening, limited accidental exposure insurance, and an online practice exam. Students are responsible for providing other personal supplies and books. A separate fee for fingerprinting will be required.

CPR, BBP and HIPAA: Students will be responsible for obtaining and maintaining certification in CPR, blood borne pathogens, and HIPAA prior to and during the Medical Laboratory Science programs. Certification can be obtained through the HLTH 1001 course or equivalent.

MLT Enrollment: During the summer term, prospective students must declare MLT as a major and submit a petition packet to the Health, Wellness & Public Safety office to be considered for the classes beginning in the fall. Applicants should petition when they are currently enrolled in their remaining prerequisite courses. The packet will include documents showing high school graduation or equivalent, CNM transcripts, transcripts from all postsecondary schools attended, and proof of a GPA of 2.0 or better. The form can be picked up from the Health, Wellness & Public Safety office or at any MLT Program Information Session. Call (505) 224-4161 for a schedule of Program Information Sessions. In the event that the number of petitioners exceeds the program capacity, completion of general college courses, grade point average, and wait time will be used as selection criteria. The petition process is subject to change.

CLA Enrollment: Enrollment in the CLA program is open to students who have completed the CNM PHLB program. Students who have completed an equivalent phlebotomy program or have national phlebotomy certification may request approval from the MLS Program Chair.

PHLB Enrollment: Enrollment in the 12-week PHLB program is open to any student who meets the Accuplacer prerequisites. Enrollment for the 2-term PHLB program requires department approval. Contact the PHLB Program Director for more information.

Recommended Prerequisites: Medical Lab Sciences students who would like to take related courses while waiting for entry into their program may take HLTH 0850, OTEC 1101, HIT 1010, HIT 1020 and/or MLT 1010.

See page 57 for information on course categories.

CAREER AND EDUCATIONAL OPPORTUNITIES

Immediate job placement locally, regionally and nationally for all Medical Laboratory Science graduates is excellent due to a shortage of lab personnel. Tuition assistance for those who want to pursue more education in Medical Laboratory Science is available through many employers. The PHLB, CLA, and MLT programs are articulated, certain MLT courses will be waived for PHLB and CLA graduates. An agreement with the University of New Mexico allows for the transfer of CNM credits to the Medical Laboratory Science Bachelor of Science Degree program. Graduate and higher degrees in Medical Laboratory Science are available.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

MEDICAL LABORATORY TECHNICIAN DEGREE

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
High School Diploma or Equivalent	
ENG 0950 Essay Writing	85
MATH 1210 Methods of Problem Solving (or MATH 1310) or College Level Math score of	60
RDG 0950 Reading and Critical Thinking	80
MLT 1010 Introduction to Medical Laboratory Sciences	
HLTH 1001 Clinical Preparation	

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED PROGRAM COURSES

COURSE	CREDIT HOURS
BIO 1310/1392 Human Anatomy and Physiology for Non-Majors/Laboratory (or BIO 2210/2292 and BIO 2310/2392)	4-8
BIO 1410/1492 Biology for Health Sciences/Laboratory	4
BIO 2110/2192 Microbiology/Laboratory	4
ENG 1101 College Writing (or ENG 1102)	3
CHEM 1410/1492 Introduction to Chemistry/Laboratory (or CHEM 1710/1792)	4
CHEM 2210 Organic Chemistry and Biochemistry (or CHEM 2710/2792)	4
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCE ELECTIVE	3
MATH 1330 Introduction to Probability and Statistics	3

REQUIRED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1 (FALL ONLY)	
MLT 1007 Clinical Success Seminar	1
MLT 1012 Clinical Urinalysis	1
MLT 1014 Immunology	1
MLT 1090 Clinical Experience Urinalysis	1
MLT 1092 Clinical Urinalysis Laboratory	1
MLT 1192 Clinical Immunology	1
MLT 1290 Clinical Experience Phlebotomy	3
TERM 2	
MLT 1510 Clinical Hematology	3
MLT 1511 Clinical Immunohematology	2
MLT 1592 Clinical Coagulation	1
MLT 1692 Clinical Hematology Laboratory	2
MLT 1792 Clinical Immunohematology Laboratory	2
TERM 3	
MLT 2010 MLT Microbiology	3
MLT 2011 Clinical Chemistry	3
MLT 2092 Clinical Chemistry Laboratory	1
MLT 2590 Clinical MLT Microbiology	3
TERM 4	
MLT 2890 Clinical Experience 1	12

Associate of Science in Medical Laboratory Technician 70

CLINICAL LABORATORY ASSISTANT CERTIFICATE

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
High School Diploma or Equivalent	
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80
HLTH 1001 Clinical Preparation	
PHLB 1090 Phlebotomy Clinical Experience (or department approval)	

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1 (FALL ONLY)	
CLA 1010 Introduction to Laboratory Techniques	3
CLA 1075 Basic Hematology and Coagulation	2
TERM 2	
CLA 1570 Basic Chemistry and Microbiology	2
CLA 1590 Clinical Experience CLA	3

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PHLEBOTOMY CERTIFICATE

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
High School Diploma or Equivalent	
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80
HLTH 1001 Clinical Preparation	1

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

**** See page 57 for information on course categories.***

SEQUENCE OF COURSES

COURSE | CREDIT HOURS

1-TERM OPTION

TERM 1

PHLB 1010 Phlebotomy Theory 4
PHLB 1090 Clinical Phlebotomy 3
PHLB 1092 Phlebotomy Lab 2
Or

2-TERM OPTION (WITH DEPARTMENT APPROVAL ONLY)

TERM 1

PHLB 1010 Phlebotomy Theory 4
PHLB 1092 Phlebotomy Lab 2

TERM 2

PHLB 1090 Clinical Phlebotomy 3

Certificate in Phlebotomy Technician 9

** See page 57 for information on course categories.*

MEDICAL OFFICE ASSISTANT

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

■ **Certificate of Completion in Medical Office Assistant**

PROGRAM DESCRIPTION

The Medical Office Assistant program offers entry-level office-related skills for students who prefer to begin a career quickly in a medical office. Students acquire basic English, computer, word processing, telephone and interpersonal skills as well as medical terminology.

Note: The courses in this program may be applied toward an Office Technology certificate or an associate of applied science degree.

CAREER AND EDUCATIONAL OPPORTUNITIES

Graduates are employed in physicians' offices and health organizations as medical office receptionists or medical office assistants. The New Mexico Department of Labor indicates that offices and clinics of medical doctors is one industry subsector with the largest projected number of jobs in Albuquerque.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0750 Practical Writing	69
RDG 0750 Reading Improvement	69

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BA 1121 Business English	3
BA 1131 Business Interpersonal Skills	3
CIS 1130 Windows	1
IT 1010 Introduction to Computers	3
OTEC 1101 Beginning Keyboarding	2
OTEC 1170 Business Telephone Techniques	1
OTEC 1171 Working with the Challenging Customer	1
OTEC 1173 Time Management Skills	1
TERM 2	
HIT 1020 Medical Terminology and Anatomy	3
OTEC 1143 Word Processing	3
OTEC 1161 Records and Information Management	2
OTEC 1175 Computers in the Medical Office	2
OTEC 1192 Keyboard Skillbuilding	2
Approved Medical Office Assistant Elective (SEE LIST)	3

Certificate in Medical Office Assistant 30

APPROVED MEDICAL OFFICE ASSISTANT ELECTIVES

BA 1122 Business Writing	3
BA 2230 Customer Relations	3
CIS 1150 MS Outlook	1
CIS 1170 Excel Fundamentals	1
CIS 1180 Access Fundamentals	1
CSE 1101 College Success or higher	1-3
OTEC XX96 Any OTEC Topics Course	1-3
OTEC 1193 Intermediate Keyboard Skillbuilding	2
OTEC 2095 Cooperative Education	4
OTEC 2097 Independent Study	3
OTEC 2098 Internship	4
OTEC 2200 Advanced Word Processing	3
OTEC 2270 Medical Transcription	3

**** See page 57 for information on course categories.***

METALS TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

- **Associate of Applied Science Degree in Metals Technology (Concentrations in Machine Tool or Welding)**
- **Certificate of Completion in Machine Tool Technology**
- **Certificate of Completion in Welding**

PROGRAM DESCRIPTION

Students will study hands-on Machine Tool and Welding Technology, which includes blueprint reading, mathematics, metallurgy and other general course work. Classes include classroom and lab time. Upon completion of this program, graduates will be eligible for entry level employment in a variety of industrial careers.

SPECIAL REQUIREMENTS

Students are expected to purchase textbooks, tools and personal safety equipment.

CAREER AND EDUCATIONAL OPPORTUNITIES

Over 90% percent of our graduates obtained employment in the metals technology field. Available jobs with the Machine Tool concentration include aerospace, manufacturing, research and development and the scientific fields. Available jobs with the Welding concentration include construction, energy and manufacturing. This degree prepares graduates for career advancement and increased earning potential.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

MACHINE TOOL TECHNOLOGY

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
CERTIFICATE	
MATH 0750 Basic College Math or Arithmetic score	57
RDG 0750 Reading Improvement	69
DEGREE	
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score	72
RDG 0950 Reading and Critical Thinking	80
ENG 0950 Essay Writing	85
IT 1010 Introduction to Computers	

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
MATT 1001 Metals Math I	2
MATT 1005 Metals Blueprint Reading I	2
MATT 1092 Basic Lathe Principles	2
MATT 1192 Basic Milling Machine Principles	2
MATT 1292 Basic Supporting Machine Tool Principles	2
MATT 1392 Basic Measurement and Inspection	2
TERM 2	
MATT 1030 Metals Math II	2
MATT 1035 Metals Blueprint Reading II	2
MATT 1492 Intermediate Lathe Principles	2
MATT 1592 Intermediate Milling Machine Principles	2
MATT 1692 Intermediate Supporting Machine Tool Principles	2
MATT 1792 Computer Numerical Control I	2
TERM 3	
MATT 1065 Metallurgy	2
MATT 2092 Advanced Lathe Principles	2
MATT 2005 Machine Tool Technology CAD/CAM	2
MATT 2192 Advanced Milling Machine Principles	2
MATT 2292 Advanced Supporting Machine Tool Principles	2
MATT 2392 Computer Numerical Control II	2

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TERM 4	
ENG 1101 College Writing	3
Or	
ENG 1102 Analytic and Argumentative Writing	
MATH 1210 or higher (except MATH 1320, 2110, 2096)	3-4
WELD 1060 Welding Skills	3
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCE ELECTIVE	3
TERM 5	
COMM 1130 or higher	3
PHYS 1010 Introduction to Physics or higher	3-5
WELD 1065 Advanced Welding Skills	3
MATT 1060 Machine Tool Technology Skills	3
MATT 2999 Machine Tool Technology Capstone Course	1

Associate of Applied Science in Metals Technology (Concentration in Machine Tool Technology) 61-64

**** See page 57 for information on course categories.***

WELDING

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
CERTIFICATE	
MATH 0750 Basic College Math or Arithmetic score of	57
RDG 0750 Reading Improvement	69
DEGREE	
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score	72
RDG 0950 Reading and Critical Thinking	80
ENG 0950 Essay Writing	85
IT 1010 Introduction to Computers	3

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
WELD 1001 Welding Math I	2
WELD 1005 Welding Blueprint Reading I	2
WELD 1092 Oxyacetylene Welding and Cutting	2
WELD 1192 Introduction to SMAW	2
WELD 1020 Introduction to Metallurgy	2
WELD 1292 Advanced SMAW	2
WELD 1492 Introduction to GMAW and Fabrication Lab	2
TERM 2	
WELD 1025 Welding Blueprint Reading II	2
WELD 1030 Welding Math II	2
WELD 1592 Introduction to GTAW and Fabrication Lab	2
WELD 2001 Advanced Blueprint Reading	2
WELD 2192 Pipe Layout and Welding	2
WELD 1692 Advanced GMAW and Fabrication	2
WELD 2292 Advanced GTAW and Fabrication	2
TERM 3	
WELD 1392 Introduction to SMAW Qualifications and Fabrication	2
WELD 2092 Qualifications for GMAW	2
WELD 2492 Project and Fabrication Lab	2
WELD 2392 Qualifications for GTAW	2
MATT 1060 Machine Tool Technology Skills	3

Certificate in Welding 39

ENG 1101 College Writing	3
Or	
ENG 1102 Analytical and Argumentative Writing	
TERM 4	
MATH 1210 or higher (except MATH 1320, 2110, 2096)	3-4
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCE ELECTIVE	3
COMM 1130 or higher	3
MATT 2025 Advanced Machine tool Technology Skills	3
PHYS 1010 Introduction to Physics or higher	3-5
WELD 2999 Welding Capstone Course	1

Associate of Applied Science in Metals Technology (Concentration in Welding) 58-61

**** See page 57 for information on course categories.***

NURSING

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Nursing Department: (505) 224-4111

cnm.edu/depts/hwps/progs/nursing/nurse/index.php

- **Associate of Science Degree in Nursing**
- **Associate of Science Degree in Nursing (LPN Mobility)**
- **Certificate of Achievement in LPN Refresher**
- **Certificate of Achievement in Nursing Assistant**
- **Certificate of Achievement in Nursing Home/Home Health Attendant**
- **Certificate of Completion in Practical Nursing**
- **Certificate of Achievement in RN Nurse Refresher**

SPECIAL REQUIREMENTS FOR NURSING PROGRAMS

Criminal Background: Students are required to undergo state and federal criminal background checks with fingerprints prior to starting their program or prior to beginning their clinical experiences. Students must have a valid social security number in order to participate in the criminal screening. For more information on the background checks, please refer to the School of Health, Wellness & Public Safety description. Students with a disqualifying conviction will not be allowed to start or remain in the program; additionally any student found to have a disqualifying conviction will not be allowed to register for any Allied Health or Nursing programs.

Drug Screen: Students are required to undergo a routine drug screening prior to starting their program. Students with a positive drug screen will not be allowed to enter the program.

Physical Requirements: Students must be in good physical and psychological health. Completed physical examination and health forms with evidence of current immunizations (tetanus, rubella, rubeola and hepatitis B) and PPD screening must be completed before beginning clinical courses. Students must be able to safely perform program specific activities and lift a minimum of 50 pounds.

Before final admission into the nursing programs, applicants are responsible for providing medical and other documentation related to any disability. Reasonable accommodations are made for students with disabilities. However, some disabilities may prohibit students from completing program specific competencies or gaining employment. Students with disabilities that may interfere with completing program competencies are advised to contact the HWPS Office at (505) 224-4111 for more information.

Professional CPR: Students must have evidence of current certification in cardiopulmonary resuscitation (CPR) for health professionals before beginning clinical courses; certification must be kept current throughout the program.

Students are required to have a New Mexico driver's license and a social security number.

ASSOCIATE OF SCIENCE IN NURSING

See Special Requirements of Nursing Programs

PROGRAM DESCRIPTION

Graduates of the Associate of Science in Nursing (ASN) program meet the requirements set by the New Mexico State Board of Nursing to take the NCLEX-RN licensing examination. Specific terms of licensure can be obtained through the New Mexico Board of Nursing.

Nursing courses emphasize a holistic approach to client care utilizing the concepts of communication, critical thinking/nursing process, caring and competence. The curriculum for this program includes classroom, laboratory, and supervised clinical instruction which integrates the required arts and sciences courses with the nursing courses. The ASN program is accredited through the National League of Nursing Accrediting Commission (NLNAC). For more information on accreditation visit the NLNAC website at nlnac.org. The NLNAC can also be contacted at (800) 669-1656. x 153 or by mail to 61 Broadway-33rd Floor, New York, NY 10006.

SPECIAL NOTES

Petitioning Process: Students must petition for acceptance into the nursing program. Petitions for entry into the program are accepted early in the spring, summer and fall terms. Applicants may contact the HWPS Office for the dates and times when petitions are accepted. To be eligible to petition a student must meet the following prerequisites: high school graduate or equivalent, a minimum score of 85 percent on the HWPS Basic Math test within 12 months prior to petitioning and a cumulative CNM GPA of 2.5 or higher, science courses (microbiology and anatomy and physiology) must be taken within five years from the date of petition to the nursing program. If the Anatomy and Physiology coursework is older than 5 years, Pathophysiology 1 and 2 (BIO 2710/2711) will be accepted in lieu (taken within 5 years). All prerequisite coursework must be complete with a letter grade of "C" or better. Students will also be required to take a national nursing entrance exam and achieve a threshold score. (Should there be more petitioners than available spaces, the date of declaration of nursing as a major will be used for prioritization. In the event of a "tie" the date of completion of all required arts and sciences courses will be used as the final selection criterion.) Because of the high demand for this program, it may take more than eighteen months after petitioning to begin the nursing core coursework. The petition process is subject to change. Students who have not petitioned should plan to attend an information session to remain current on petitioning requirements. Information sessions cover the petitioning process, program requirements and career opportunities and are scheduled regularly. Dates and times for Program Information Sessions can be obtained by calling the School of Health, Wellness & Public Safety at (505) 224-4111.

After petitioning, requirements for entering clinical courses are:

- Demonstrated competence in Basic Patient Care skills. Students accomplish this by either successfully demonstrating the skills at a Competency Check-Off Session or completing the NA or NAHA courses at CNM. The skills competence must be current; meaning completed no more than 12 months before the student's start date for Check-Offs OR 18 months for the NA or NAHA class.

See page 57 for information on course categories.

Specific details of these requirements will be mailed to students upon successful petitioning.

Students are responsible for any transportation associated with the course. Students should also be aware that there may be afternoon, evening, and weekend clinical obligations scheduled.

There is a program fee in the first term which is used to purchase the required uniforms, personal nursing tools, standardized testing, criminal background checks, drug screening, lab tests in the event of a needle stick or exposure to bodily fluids, and hospital parking permits. Each subsequent course has program fees for continued standardized testing and hospital parking permits.

Students are responsible for the expenses of the physical examination, immunizations, fingerprinting, a watch with a second hand, pen light, uniform shoes, textbooks, licensing exam fees, and a graduation pin.

CAREER AND EDUCATIONAL OPPORTUNITIES

ASN Graduates find employment in hospitals, long-term care facilities, home health care and physicians' offices. Nurses can attain specialty credentials through employment and specialty course offering. CNM nursing students are encouraged to continue their education toward a bachelor of science in nursing degree in order to pursue leadership positions in nursing and in the community.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

NURSING DEGREE

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
High School diploma or equivalent	
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving 1 or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80
BIO 1410/1492 or passing score on biology placement exam	
CHEM 1410/1492 or CHEM 1710/1792 or passing score on biology placement exam	

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED PROGRAM COURSES

COURSE	CREDIT HOURS
BIO 2210/2292 Human Anatomy and Physiology I**/Laboratory	4
BIO 2310/2392 Human Anatomy and Physiology II**/Laboratory	4
BIO 2110/2192 Microbiology /Laboratory**	4
ENG 1101 College Writing	3
NUTR 2110 Human Nutrition	3
PHIL 2247 Biomedical Ethics	3
PSY 1105 Introduction to Psychology	3
PSY 2220 Developmental Psychology	3
*ARTS AND SCIENCES ELECTIVE or IT 1010	3

****Must be completed within five years of petitioning; will accept BIO 2710 and BIO 2711 (Pathophysiology I and II) in lieu of re-taking Anatomy and Physiology I and II.**

REQUIRED SEQUENCE OF COURSES

TERM 1

NURS 1007 Dosage Calculations	1
NURS 1080 Introduction to Nursing	9

TERM 2

NURS 1580 Nursing Care of the Adult Client	9
NURS 2002 Pharmacology in Nursing	3

TERM 3

NURS 2580 Family Nursing	10

TERM 4

NURS 2680 Complex Health Problems	9
NURS 2515 Manager of Care	1

Associate of Science in Nursing 72

NURSING DEGREE (LPN MOBILITY)

See Special Requirements of Nursing Programs

The LPN Mobility option allows qualified licensed practical nurses to complete their Associate of Science in Nursing (ASN) by entering into the third term of the ASN program. Graduates of the ASN program meet the requirements set by the New Mexico State Board of Nursing to take the NCLEX-RN licensing examination. Specific terms of licensure can be obtained through the New Mexico Board of Nursing.

Application Process: Students must meet all requirements into the nursing program including: high school graduate or equivalent, a cumulative CNM GPA of 2.5 or higher and all prerequisite coursework must be complete with a letter grade of "C' or better. Students must submit official transcripts of previous practical nursing education in a vocational school or college. These transcripts must be sent directly to the CNM records department. It is strongly advised that student interested in this entry option contact the Academic Advisement Office at 224-4321.

Please note the following:

For CNM PN graduates (within the last three years)-students do not need NURS 2074, NURS 1007, NURS 2002. The only requirement is proof of licensure and documentation of 1,000 hours of work as an LPN.

For CNM PN graduates (over three years) or non-CNM graduates – students must take NURS 2074, NURS 1007, and NURS 2002, prior to starting NURS 2580. Students must also show proof of licensure and provide documentation of working 1,000 hours in the past two years as an LPN.

Students are responsible for any transportation associated with the course. Students should also be aware that there may be afternoon, evening, and weekend clinical obligations scheduled.

Students are responsible for the expenses of the physical exam, immunizations, fingerprinting, a watch with a second hand, pen light, uniform, textbooks, and licensing exam fees.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
High School diploma or equivalent	
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving 1 or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

**** See page 57 for information on course categories.***

BIO 1410/1492 or passing score on biology placement exam
CHEM 1410/1492 or CHEM 1710/1792 or passing score on biology placement exam
NURS 2074 Concepts for Transitioning Students

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED PROGRAM COURSES

COURSE	CREDIT HOURS
BIO 2110/2192 Microbiology	4
BIO 2210/2292 Human Anatomy and Physiology I/Laboratory	4
BIO 2310/2392 Human Anatomy and Physiology II/Laboratory	4
ENG 1101 College Writing	3
NUTR 2110 Human Nutrition	3
PHIL 2247 Biomedical Ethics	3
PSY 1105 Introduction to Psychology	3
PSY 2220 Developmental Psychology	3
*ARTS AND SCIENCES ELECTIVE or IT 1010	3

REQUIRED SEQUENCE OF NURSING COURSES

TERM 1

NURS 1007 Dosage Calculations	1
NURS 2002 Pharmacology in Nursing	3

TERM 2

NURS 2580 Family Nursing	10

TERM 3

NURS 2680 Complex Health Problems	9
NURS 2515 Manager of Care	1
Upon completion of the program, the credits for NURS 1080 and NURS 1580 will be awarded to the students	18

Associate of Science in Nursing 72

PRACTICAL NURSING CERTIFICATE

See Special Requirements of Nursing Programs

Graduates of the Practical Nursing (PN) certificate program meet the requirements set by the New Mexico State Board of Nursing to take the NCLEX-PN licensing examination. Specific terms of licensure can be obtained through the New Mexico Board of Nursing. The Practical Nursing (PN) certificate program prepares practical nurses to care for patients in a variety of health care facilities under the supervision of registered nurses, physicians, or dentists.

Nursing courses emphasize a holistic approach to client care utilizing the concepts of communication, critical thinking/nursing process, caring and competence. The curriculum for this program includes classroom, laboratory, and supervised clinical instruction which integrates the required arts and sciences courses with the nursing courses. The PN program is accredited through the National League of Nursing Accrediting Commission (NLNAC). For more information on accreditation visit the NLNAC website at nlnac.org. The NLNAC can also be contacted at (800) 669-1656. x 153 or by mail to 61 Broadway-33rd Floor, New York, NY 10006.

SPECIAL NOTES

Petitioning Process: Students must petition for acceptance into the nursing program. Petitions for entry in the program are accepted early in the spring, summer and fall terms. Applicants may contact the HWPS Office for the dates and times when petitions are accepted. To be eligible to petition a student must meet the following prerequisites: high school graduate or equivalent, a minimum score of 85 percent on the HWPS Basic Math test within 12 months prior to petitioning and a cumulative CNM GPA of 2.5 or higher, science courses (anatomy and physiology) must be taken within five years from the date of petition to the nursing program. If the Anatomy and Physiology coursework is older than 5 years, Pathophysiology 1 and 2 (BIO 2710/2711) will be accepted in lieu (taken within 5 years). All prerequisite coursework must be complete with a letter grade of "C" or better. Students will also be required to take a national nursing entrance exam and achieve a threshold score. (Should there be more petitioners than available spaces, the date of declaration of nursing as a major will used for prioritization. In the event of a "tie" the date of completion of all required arts and sciences courses will be used as the final selection criterion.) Because of the high demand for this program, it may take more than eighteen months after petitioning to begin the nursing core coursework. The petition process is subject to change. Students who have not petitioned should plan to attend an information session to remain current on petitioning requirements. Information sessions cover the petitioning process, program requirements and career opportunities and are scheduled regularly. Dates and times for Program Information Sessions can be obtained by calling the School of Health, Wellness & Public Safety at (505) 224-4111.

After petitioning, requirements for entering clinical courses are:

- Demonstrated competence in Basic Patient Care skills. Students accomplish this by either successfully demonstrating the skills at a Competency Check-Off Session or completing the NA or NAHA courses at CNM. The skills competence must be current; meaning completed no more than 12 months before the student's start date for Check-Offs OR 18 months for the NA or NAHA class.

Specific details of these requirements will be mailed to students upon successful petitioning.

Students are responsible for any transportation associated with the course. Students should also be aware that there may be afternoon, evening, and weekend clinical obligations scheduled.

There is a program fee in the first term which is used to purchase the required uniforms, personal nursing tools, standardized testing, criminal background checks, drug screening, lab tests in the event of a needle stick or exposure to bodily fluids, and hospital parking permits. Each subsequent course has program fees for continued standardized testing and hospital parking permits.

Students are responsible for the expenses of the physical examination, immunizations, fingerprinting, a watch with a second hand, pen light, uniform shoes, textbooks, licensing exam fees, and a graduation pin.

CAREER AND EDUCATIONAL OPPORTUNITIES

Practical nursing graduates find employment opportunities in nursing homes, clinics, and long-term care facilities. Nurses can attain specialty credentials through employment and specialty course offerings. CNM nursing students are encouraged to continue their education toward and Associate of Science in Nursing and ultimately a Bachelor of Science in Nursing degree in order to pursue leadership positions in nursing and in the community.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
High School diploma or equivalent	
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving 1 or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80
BIO 1410/1492 or passing score on biology placement exam	4
CHEM 1410/1492 or CHEM 1710/1792 or passing score on biology placement exam	4

**** See page 57 for information on course categories.***

REQUIRED PROGRAM COURSES

COURSE	CREDIT HOURS
BIO 2210/2292 Human Anatomy and Physiology I**/Laboratory	4
BIO 2310/2392 Human Anatomy and Physiology II**/Laboratory	4
ENG 1101 College Writing	3
NUTR 2110 Human Nutrition	3
PSY 1105 Introduction to Psychology	3

****Must be completed within five years of petitioning; will accept BIO 2710 and BIO 2711 (Pathophysiology I and II) in lieu of re-taking Anatomy and Physiology I and II.**

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED SEQUENCE OF COURSES

TERM 1	
NURS 1007 Dosage Calculations	1
NURS 1080 Introduction to Nursing	9
NURS 1092 Supplemental Lab	1
TERM 2	
NURS 1580 Nursing Care of the Adult Client	9
NURS 1592 Supplemental Lab	1
NURS 2002 Pharmacology in Nursing	3
TERM 3	
NURS 2080 Family Nursing Across the Lifespan	7

Certificate in Practical Nursing 48

NURSING ASSISTANT CERTIFICATE

See Special Requirements of Nursing Programs

Students will study basic patient care skills, including classroom (135 hours) and lab/clinical (270 hours). Topics include basic patient care skills, growth and development, anatomy and physiology, communication, rehabilitation, and residents' rights. This course is web-enhanced and requires students to obtain a CNM Web-based learning account. This program provides training in Cardio Pulmonary Resuscitation (CPR), Blood Borne Pathogens (BBP), First Aid and the Health Insurance Portability and Accountability Act (HIPAA). Graduates are eligible to take the state Certified Nursing Assistant (CNA) certification exam.

Students should contact appropriate credentialing or licensing agencies and local or regional industry for hiring and employment practices. Contact the New Mexico Department of Health, Health Facility Licensing and Certification Bureau (505) 476-9040 for certification/recertification information. Students requiring New Mexico State CNA test information may contact Prometric at (866) 391-1945 or prometric.com/nurseaide/nm/htm.

The program fee covers the cost of the required scrub top, name tag, stethoscope, lab tests in the event of a needle stick or exposure to bodily fluids, NA pin, criminal background checks, drug screening, transfer belt, and health tests. The program fees are published in the *Schedule of Classes*.

The student must provide a watch with a second hand, white uniform slacks, white shirt, and white shoes.

Jobs are available in hospitals, outpatient clinics, nursing homes and in private homes.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0750 Practical Writing	69
MATH 0750 Basic College Mathematics or Arithmetic score of	57
RDG 0750 Reading Improvement	69

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
NA 1014 Foundations of Nursing Assistant	9
NA 1094 Nursing Assistant Lab/Clinical Experiences	6

Certificate in Nursing Assistant 15

NURSING HOME/HOME HEALTH ATTENDANT CERTIFICATE

See Special Requirements of Nursing Programs

Students study basic patient care skills, including both classroom and lab (105 hours) and clinical (45 hours) sessions. Topics include basic patient care skills, geriatrics, simple anatomy and physiology, rehabilitation, residents' rights and housekeeping chores. This course is web-enhanced and requires students to obtain a CNM Web-based learning account. Lab experiences focus on personal care, vital signs and mobility skills. This program provides Cardio Pulmonary Resuscitation (CPR), Blood Borne Pathogens (BBP), First Aid and the Health Insurance Portability and Accountability Act (HIPAA).

Students are eligible to take the state certification exam, Certified Nursing Assistant (CNA), at the completion of this course.

Students should contact appropriate credentialing or licensing agencies and local or regional industry for hiring and employment practices. Contact the New Mexico Department of Health, Health Facility Licensing and Certification Bureau (505) 476-9040 for certification/recertification information. Students requiring New Mexico State CNA test information may contact Prometric at (866) 391-1945 or prometric.com/nurseaide/nm/htm.

A program fee covers the cost of the required apron, nametag, criminal background check, drug screen, lab tests in the event of a needle stick or exposure to bodily fluids and transfer belt. A student must provide a watch with a second hand, uniform slacks, white collared shirt and shoes. The program fee is published in the *Schedule of Classes*. A physical exam form is provided on the first day of class.

Jobs are available in hospitals, outpatient clinics, nursing homes, and in private homes.

**** See page 57 for information on course categories.***

REQUIRED SEQUENCE OF COURSE

COURSE	CREDIT HOURS
TERM 1	
NAHA 1014 Nursing Home/Home Health Attendant Theory/Lab/Clinical	6

Certificate in Nursing Home/ Home Health Attendant 6

RN NURSE REFRESHER CERTIFICATE

See Special Requirements of Nursing Programs

This course offers students updates in all major areas of nursing practice and includes 90 hours of clinical time.

A valid active Registered Nurse license or temporary license is required. A white uniform, shoes and a stethoscope are required for clinicals. The program fee covers the cost of supplies, criminal background check, drug screen and lab tests in the event of a needle stick or exposure to bodily fluids. There are additional fees payable to the New Mexico State Board of Nursing for licensure endorsement and reinstatement if a student's nursing license has expired. Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.

COURSE PREREQUISITE(S)

Participant must have successfully passed State Board Exams (NCLEX) and have a temporary or valid license to practice.
Current BLS (CPR for healthcare professionals)

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
RNR 2010 Refresher Theory/Lab	7
RNR 2090 Refresher Clinical Experience (CR/NC)	2

Certificate in Registered Nurse Refresher 9

LPN REFRESHER CERTIFICATE

See Special Requirements of Nursing Programs

This course offers students updates in all major areas of nursing practice and includes 90 hours of clinical time.

A valid active Practical Nurse license or temporary license is required. A white uniform, shoes and a stethoscope are required for clinicals. The program fee covers the cost of supplies, criminal background check, drug screen and lab tests in the event of a needle stick or exposure to bodily fluids. There are additional fees payable to the New Mexico State Board of Nursing for licensure endorsement and reinstatement if a student's nursing license has expired. Students enrolled in this program may not be eligible to receive financial aid or Veterans Administration benefits.

Graduates of this course have job opportunities in hospitals, nursing homes, outpatient clinics and with home health and hospice providers.

COURSE PREREQUISITE(S)

Participant must have successfully passed State Board Exams (NCLEX) and have a temporary or valid license to practice.
Current BLS (CPR for healthcare professionals)

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
LPNR 2010 Refresher Theory/Lab	7
LPNR 2090 Refresher Clinical Experience (CR/NC)	2

Certificate in LPN Refresher 9

**** See page 57 for information on course categories.***

OFFICE ASSISTANT

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

■ **Certificate of Completion in Office Assistant**

PROGRAM DESCRIPTION

The Office Assistant program offers entry-level, office-related skills for students who prefer to begin an office career quickly. Students acquire basic English, computer, word processing and interpersonal skills.

CAREER AND EDUCATIONAL OPPORTUNITIES

Many graduates decide to continue for their Office Technology Certificate or associate of applied science degree.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0750 Practical Writing	69
RDG 0750 Reading Improvement	69

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BA 1121 Business English	3
BA 1131 Business Interpersonal Skills	3
IT 1010 Introduction to Computers	3
OTEC 1101 Beginning Keyboarding	2
OTEC 1170 Business Telephone Techniques	1
OTEC 1171 Working with the Challenging Customer	1
OTEC 1173 Time Management Skills	1
TERM 2	
ACCT 1109 Business Math	3
CIS 1130 Windows	1
CIS 1150 MS Outlook	1
OTEC 1143 Word Processing	3
OTEC 1161 Records and Information Management	2
OTEC 1192 Keyboard Skillbuilding	2
Approved Office Assistant Elective (SEE LIST)	3

Certificate in Office Assistant 29

APPROVED OFFICE ASSISTANT ELECTIVES

BA 1122 Business Writing	3
BA 2230 Customer Relations	3
CIS 1140 PowerPoint Fundamentals	1
CIS 1170 Excel Fundamentals	1
CIS 1171 Intermediate Excel	1
CIS 1173 Excel Complete	3
CIS 1180 Access Fundamentals	1
CSE 1101 College Success or higher	1-3
HIT 1020 Medical Terminology and Anatomy	3
OTEC XX96 Any OTEC Topics Course	1-3
OTEC 1175 Computers in the Medical Office	2
OTEC 1193 Intermediate Keyboard Skillbuilding	2
OTEC 2095 Cooperative Education	4
OTEC 2097 Independent Study	3
OTEC 2098 Internship	4
OTEC 2200 Advanced Word Processing	3

**** See page 57 for information on course categories.***

OFFICE TECHNOLOGY

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

- **Associate of Applied Science Degree in Office Technology (Concentrations in Medical and Office Technology)**
- **Certificate of Completion in Office Technology (Concentrations in Medical and Office Technology)**
- **Certificate of Completion in Medical Office Transcription**
- **Certificate of Achievement in Records Clerk**
- **Certificate of Achievement in Word Processing**

PROGRAM DESCRIPTION

The Office Technology program provides opportunities for individuals to develop marketable skills in the areas of office procedures, interpersonal relations, office technology, office accounting, written communication and computer applications to meet the demands and expanded responsibilities of today's administrative workforce. Individuals who have attained a Certified Professional Secretary (CPS) rating and who have successfully completed the Certified Administrative Professional (CAP) exam may receive credit hours toward the Office Technology associate of applied science degree. Two concentrations are available in the Office Technology program: Medical Concentration and Office Technology Concentration. Students may contact the associate dean for more information about advanced placement.

Note: The associate of applied science degree transfers at least 30 technical credits and applicable arts and sciences credits to the University of New Mexico College of Education toward the Technology and Training (2+2) program. Contact (505) 224-3811 for more information.

CAREER AND EDUCATIONAL OPPORTUNITIES

Graduate job placement for office technology (previously office administration) has been 88 to 100 percent since 1997. The office technology profession offers a challenging and rewarding career. The program provides graduates with the foundation to move into positions with more responsibility and higher wages. Many administrative professionals are taking over duties once held by middle managers.

Employment growth is expected in the office administration profession. According to the U.S. Department of Labor, opportunities should be best for applicants with extensive knowledge of software applications.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
RDG 0950 Reading and Critical Thinking	80
MATH 0930 Algebraic Problem-Solving I or Elementary Algebra score of (for degree only)	72

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

OFFICE TECHNOLOGY (OFFICE TECHNOLOGY CONCENTRATION)

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BA 1121 Business English	3
CIS 1130 Windows	1
IT 1010 Introduction to Computers	3
IT 1020 Integrating Business and Technology	3
Or	
BA 1101 Introduction to Business	
OTEC 1101 Beginning Keyboarding	2
OTEC 1161 Records and Information Management	2
TERM 2	
ACCT 1109 Business Math	3
BA 1122 Business Writing	3
BA 1131 Business Interpersonal Skills	3
OTEC 1143 Word Processing	3
OTEC 1192 Keyboard Skillbuilding	2
TERM 3	
CIS 1173 Excel Complete	3
ENG 1101 College Writing	3
OTEC 1193 Intermediate Keyboard Skillbuilding	2
OTEC 2200 Advanced Word Processing	3
OTEC 2231 Business English Applications	3
TERM 4	
COMM Elective	3
OTEC 2260 Business Procedures	3

Certificate in Office Technology (Office Technology Concentration)..... 48

CIS 1145 MS PowerPoint	2
CIS 1150 MS Outlook	1
OTEC 1112 Office Accounting Procedures	3
OTEC 2093 Advanced Keyboard Skillbuilding	2

**** See page 57 for information on course categories.***

TERM 5

BA 2999 Capstone Course 1
*BIOLOGICAL/PHYSICAL SCIENCE ELECTIVE 3-4
Or
MATH 1210 Methods of Problem Solving or higher (except MATH 2110 and 2096)
*ARTS AND SCIENCES ELECTIVE 3-4
Approved Office Technology Elective (SEE LIST) 3

Associate of Applied Science in Office Technology (Office Technology Concentration) 66-68

OFFICE TECHNOLOGY (MEDICAL CONCENTRATION)

RECOMMENDED SEQUENCE OF COURSES

TERM 1

BA 1121 Business English 3
BA 1131 Business Interpersonal Skills 3
IT 1010 Introduction to Computers 3
IT 1020 Integrating Business and Technology 3
Or
BA 1101 Introduction to Business
OTEC 1101 Beginning Keyboarding 2

TERM 2

ACCT 1109 Business Math 3
BA 1122 Business Writing 3
OTEC 1143 Word Processing 3
OTEC 1161 Records and Information Management 2
OTEC 1175 Computers in the Medical Office 2
OTEC 1192 Keyboard Skillbuilding 2

TERM 3

ENG 1101 College Writing 3
HIT 1020 Medical Terminology and Anatomy 3
OTEC 1112 Office Accounting Procedures 3
OTEC 1193 Intermediate Keyboard Skillbuilding 2
OTEC 2200 Advanced Word Processing 3

TERM 4

COMM Elective 3
OTEC 2260 Business Procedures 3

Certificate in Office Technology (Medical Concentration) 49

CIS 1173 Excel Complete 3
HIT 1030 Health Data Content and Structure 4
OTEC 2270 Medical Transcription 3

TERM 5

BA 2999 Capstone Course 1
*BIOLOGICAL/PHYSICAL SCIENCE ELECTIVE 3-4
Or
MATH 1210 Methods of Problem Solving or higher (except MATH 2110 and 2096)
*ARTS AND SCIENCES ELECTIVE 3-4
Approved Office Technology Elective (SEE LIST) 3

Associate of Applied Science in Office Technology (Medical Concentration) 68-70

APPROVED OFFICE TECHNOLOGY ELECTIVES

ACCT 1411 Beginning QuickBooks 1
BA 2232 Supervision 3
BA 2240 Business Law 3
BA 2284 Strategic Management 3
CIS 1110 MS Applications and Integration 3
CIS 1180 Access Fundamentals 1
CIS 1181 Intermediate Access 1
CIS 1182 Advanced Access 1
CIS 1183 Access Complete 3
CIS 1185 Adobe Acrobat 1
CIS 1130 Windows 1
CIS 1150 MS Outlook 1
CIS 1310 Introduction to Multimedia 3
CIS 1710 Beginning XHTML 1
CIS 1711 Intermediate XHTML 1
CIS 1712 Advanced XHTML 1
CIS 2110 Project Management Software 1
CIS 2135 Microsoft Expression 3
CIS 2310 Desktop Publishing 3
CIS 2340 Dreamweaver 2
CSE 1101 College Success or higher 1-3
OTEC XX96 Any OTEC Topics Course 1-3
OTEC 1170 Business Telephone Techniques 1
OTEC 1171 Working with the Challenging Customer 1
OTEC 1173 Time Management Skills 1
OTEC 1175 Computers in the Medical Office 2
OTEC 2095 Cooperative Education 4
OTEC 2097 Independent Study 3
OTEC 2098 Internship 4
OTEC 2231 Business English Applications 3
OTEC 2270 Medical Transcription 3

MEDICAL OFFICE TRANSCRIPTION CERTIFICATE

This Certificate of Completion is designed to develop workplace-ready transcriptionists and medical language specialists.

RECOMMENDED SEQUENCE OF COURSES

COURSE — CREDIT HOURS

TERM 1

BA 1121 Business English 3
HIT 1020 Medical Terminology and Anatomy 3
OTEC 1101 Beginning Keyboarding 2

TERM 2

OTEC 1143 Word Processing 3
OTEC 1192 Keyboard Skillbuilding 2

TERM 3

OTEC 1193 Intermediate Keyboard Skillbuilding 2
OTEC 2270 Medical Transcription 3

Certificate in Medical Office Transcription 18

*** See page 57 for information on course categories.***

RECORDS CLERK CERTIFICATE

The Records Clerk Certificate of Achievement is designed as an entry point for job opportunities in the records and information management field. This certificate was developed for the person interested in processing material in various medias for integration into manual and electronic records systems.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BA 1131 Business Interpersonal Skills	3
IT 1010 Introduction to Computers	3
OTEC 1101 Beginning Keyboarding	2
TERM 2	
BA 1121Business English	3
OTEC 1161 Records and Information Management	2
OTEC 1192 Keyboard Skillbuilding	2

Certificate in Records Clerk..... 15

WORD PROCESSING CERTIFICATE

The Word Processing Certificate of Achievement is designed for the person interested in advanced applications for preparing business documents using Microsoft Word.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
BA 1121 Business English	3
OTEC 1101 Beginning Keyboarding	2
TERM 2	
OTEC 1143 Word Processing	3
OTEC 1192 Keyboard Skillbuilding	2
TERM 3	
OTEC 1193 Intermediate Keyboard Skillbuilding	2
OTEC 2200 Advanced Word Processing	3

Certificate in Word Processing..... 15

See page 57 for information on course categories.

PARALEGAL STUDIES

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-3863.

cnm.edu/depts/hwps/progs

- **Associate of Applied Science Degree in Paralegal Studies**
- **Post Degree Certificate of Completion in Paralegal Studies**

PROGRAM DESCRIPTION

The Paralegal Studies program prepares students for careers in the legal profession. Paralegals are skilled professionals who perform substantive legal tasks under the supervision of a licensed attorney. Paralegals may not provide legal services directly to the public except as permitted by law. Responsibilities include interviewing and assisting clients and witnesses, investigation, data analysis, drafting legal documents, research, litigation support and case management. The Paralegal Studies program is approved by the American Bar Association (ABA).

Note: The associate of applied science degree transfers at least 30 technical credits and applicable arts and sciences credits to the University of New Mexico College of Education toward the Technology and Training program. Contact (505) 224-4111 for more information.

SPECIAL REQUIREMENTS

Students with a criminal background may have limited employment opportunities. Students should contact appropriate agencies and employers for hiring and employment practices.

CAREER AND EDUCATIONAL OPPORTUNITIES

Employment opportunities include placement in law firms, corporate legal departments, legal aid offices, public agencies and insurance companies.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

PL CURRENT GOALS AND OBJECTIVES

The goal of the Paralegal Studies program is to provide quality education and training to qualified men and women so that they might assist the legal profession in rendering more economical and efficient legal services to a greater number of persons. The following objectives support this goal:

- Understand the various functions and roles of a paralegal in a variety of legal specialty areas
- Knowledge of substantive and procedural law and the legal system
- Knowledge of the ethical responsibilities affecting paralegals and attorneys with emphasis on the prohibitions against unauthorized practice of law
- Master effective communication skills: oral, interpersonal and written
- Demonstrate proficiency in using technology, including performing legal research

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
RDG 0950 Reading and Critical Thinking	80
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CIS 1120 Microsoft Word	3
COMM Elective	3
ENG 1101 College Writing	3
PL 1110 Introduction to Paralegal Studies	3
PL 1120 American Law and Ethics	3
TERM 2	
ENG 1102 Analytic and Argumentative Writing	3
PHIL 1156 Logic and Critical Thinking	3
PL 1130 Torts	3
PL 1140 Legal Research and Writing I	3
PSY 1105 Introduction to Psychology	3
TERM 3	
MATH 1210 Methods of Problem Solving or higher (except MATH 2096 and 2110)	3 or 4
PL 2120 Civil Litigation	3
PL 2140 Legal Research and Writing II	3
PL 2150 Evidence	3
PL 2160 Law Office Management	3
TERM 4	
PL 2130 Criminal Litigation	3
PL 2220 Wills, Probate and Estate Planning	3
PL 2230 Computer-Aided Legal Research	1
PL 2233 Computer Applications in Law Practice	1
PL 2236 Specialized Legal Software	1
PL 2098 Internship	4
Or	
PL 2095 Cooperative Education	
Approved AAS Elective (SEE LIST)	3

Associate of Applied Science in Paralegal Studies 61-62

**** See page 57 for information on course categories.***

APPROVED AAS ELECTIVES

ACCT 1111 Accounting IA 3
Or
ACCT 1112 Accounting IB
CJ 1002 Criminal Law 3
CJ 1007 Criminal Procedure 3
CJ 1502 Juvenile Law and Procedure 3
CJ 2007 White Collar Crimes 3
CJ 2515 Criminal Investigation 3
JUD 1110 Introduction to Judicial Studies 3
JUD 1120 Introduction to Court Operations and Ethics 2
PL 1096 and/or 2096 Topics 3
PL 2097 Independent Study ..... variable
PL 2415 Business Organizations 3
PL 2420 Contract Law 3
PL 2425 Domestic Relations 3
PL 2430 Constitutional Law 3
PL 2435 Civil Litigation II 3
PL 2440 Criminal Litigation II 3
PL 2445 Personal Injury Law 3
PL 2450 Administrative Law 3
PL 2455 Employment Law 3
PL 2460 Native American Law 3
PL 2465 Social Security Law 1
PL 2470 Bankruptcy Law 1
PL 2520 Mediation 3
PL 2530 Public Defender 3

PARALEGAL STUDIES CERTIFICATE

COURSE PREREQUISITE(S)

Students must have a bachelor's or an associate's degree from an accredited college or university. Students with a prior associate of applied science degree must have at least 18 semester hours of general education coursework and must meet certain requirements for writing proficiency, oral communication skills and breadth of study. A meeting with the program chair or associate dean is required for individuals entering the Post Degree Paralegal Studies Certificate program.
Students must have department approval to declare the Post Degree Paralegal Studies Certificate as their major.

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CIS 1125 Word Fundamentals	1
PL 1110 Introduction to Paralegal Studies	3
PL 1120 American Law and Ethics	3
PL 1130 Torts	3
PL 1140 Legal Research and Writing I	3
PL 2120 Civil Litigation	3
TERM 2	
PL 2130 Criminal Litigation	3
PL 2140 Legal Research and Writing II	3
PL 2230 Computer-Aided Legal Research	1
PL 2233 Computer Applications in Law Practice	1
PL 2236 Specialized Legal Software	1
PL 2098 Internship	4
Or	
PL 2095 Cooperative Education	
Approved Certificate Elective (SEE LIST)	3

Post Degree Certificate in Paralegal Studies 32

APPROVED CERTIFICATE ELECTIVES

JUD 1110 Introduction to Judicial Studies 3
PL 1096 and/or 2096 Topics 3
PL 2097 Independent Study ..... variable
PL 2150 Evidence 3
PL 2160 Law Office Management 3
PL 2220 Wills, Probate, and Estate Planning 3
PL 2415 Business Organizations 3
PL 2420 Contract Law 3
PL 2425 Domestic Relations 3
PL 2430 Constitutional Law 3
PL 2435 Civil Litigation II 3
PL 2440 Criminal Litigation II 3
PL 2445 Personal Injury Law 3
PL 2450 Administrative Law 3
PL 2455 Employment Law 3
PL 2460 Native American Law 3
PL 2465 Social Security Law 1
PL 2470 Bankruptcy Law 1
PL 2520 Mediation 3
PL 2530 Public Defender 3

See page 57 for information on course categories.

PHARMACY TECHNICIAN

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-5487.

cnm.edu/depts/hwps/progs

■ **Certificate of Completion Pharmacy Technician**

PROGRAM DESCRIPTION

The program is designed to prepare students for careers as pharmacy technicians in hospital, retail, mail-order pharmacies and other pharmacy related industries. Students receive classroom, laboratory and practical experience covering all aspects of the profession. Included in the laboratory portions of the program is a 45-hour content-specific block of instruction dealing with the preparation of sterile intravenous products as required by the New Mexico Board of Pharmacy.

SPECIAL REQUIREMENTS

Students are required to have a New Mexico driver's license and current immunizations (including DTP and MMR).

Criminal Background/Drug Screen: Students are required to undergo a routine drug screening and a state and federal criminal background check with fingerprints prior to starting the program or prior to beginning their clinical experiences. For information on the criminal background check, please note the complete description on page 56 under the School of Health, Wellness & Public Safety description. Students with a disqualifying conviction will not be allowed to start or remain in the program; additionally any student found to have a disqualifying conviction will not be allowed to register for any Allied Health or Nursing programs. Students interested in certain School of Health, Wellness & Public Safety programs must be in good physical and psychological health. Students may be required to provide documentation of a recent health screening from a licensed health care provider confirming the ability to safely perform program specific activities and lift a minimum of 50 pounds. Reasonable accommodations are made for those students with disabilities. However, some disabilities may prohibit students from completing program specific competencies or gaining employment.

CAREER AND EDUCATIONAL OPPORTUNITIES

The Pharmacy Technician program typically has a 100 percent placement rate for its graduates. Jobs are available in hospitals, retail and specialty pharmacies. Graduates are eligible to take the National Certification exam for pharmacy technicians. Graduates who have taken the certification exam have consistently scored higher than the national average.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

SPECIAL NOTES

Students should have reliable transportation while in the program. Clinical assignments are given to students requiring travel throughout the metropolitan area.

Students planning to continue their educations at higher education institutions are encouraged to take CHEM 1410/1492 and COMM 2221.

COURSE PREREQUISITE(S)

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 1101 College Writing	110
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80
CHEM 0950 Basics of Chemistry	
Or	
CHEM 1410/1492 Intro to Chemistry with lab	

SEQUENCE OF COURSES

The program begins every other term, term 1 is offered spring '10, fall '10, summer'11.

COURSE	CREDIT HOURS
TERM 1	
HLTH 1001 Clinical Preparation	1
IT 1010 Introduction to Computers	3
PT 1003 Pharmacuetical Calculations	3
PT 1010 Introduction to Pharmacy Technology	3
PT1015 Pharmacy Technician Anatomy and Physiology	3
PT 1092 Pharmacy Technician Lab I	2
TERM 2	
COMM 1130 Public Speaking	3
Or	
COMM 2221 Interpersonal Communication	
Or	
COMM 2225 Small-Group Communication Studies	
Or	
COMM 2232 Business and Professional Communication Studies	
PT1510 Advanced Pharmacy Technology	3
PT 1515 Pharmacology for Pharmacy Technicians	3
PT 1590 Pharmacy Technician Practicum	5
PT 1592 Pharmacy Technician Lab II	2

Certificate in Pharmacy Technician 31

**** See page 57 for information on course categories.***

PHOTONICS TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3340.

PROGRAM DESCRIPTION

At the time of publication, this program was undergoing curriculum redesign. Once completed, the program will be available online at cnm.edu/course catalog/index.php. The redesign will affect students who enter the program on or after fall 2009. For current students who have formally declared this major, refer to the program requirements listed in the 2007-2009 catalog.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

**** See page 57 for information on course categories.***

PLUMBING

School of Applied Technologies

CONTACT INFORMATION

Program Information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

■ **Certificate of Completion in Plumbing**

PROGRAM DESCRIPTION

The Plumbing Certificate program provides students with opportunities to develop marketable skills in areas of installation, repair and maintenance of common plumbing systems. Mathematical computations; interpretation of code, manufacturer's requirements, descriptions of technological advancements, public health and general public safety responsibilities are emphasized. Core principles and concepts of plumbing systems are cornerstones for each course. Classroom theory leads to team and individual hands-on projects, which are recorded completed and evaluated. Plumbing safety, blueprint reading, gas fittings, pipe layout, drain waste and vent piping systems are subjects covered during the first term. Backflow prevention, commercial plumbing, building maintenance and repair, hydronics and plumbing systems and plumbing code applications are subjects concentrated on during the second term. Completion of the Plumbing certificate program provides students with the education and experience for a New Mexico Journeyman's license.

SPECIAL REQUIREMENTS

Text books, hand tools and personal protective equipment must be purchased. Students should be able to lift and carry at least 50 lbs. Students are required to plan their work and be able to understand detailed instructions. The ability to visualize completed systems before beginning to work on them is an important skill.

Fees: Course fees are published in the *Schedule of Classes*. These fees cover the cost of tools required for lab activities.

CAREER AND EDUCATIONAL OPPORTUNITIES

Career opportunities are available in the public and private sector. A master plumber working for a systems installation business may advance to become a contractor, an inspector, educator or official in the plumbing trade.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0550 or Arithmetic score of	31

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
PLMB 1105 Plumbing and Safety Fundamentals	3
PLMB 1110 Blueprint Reading	2
PLMB 1115 Introduction to Gas Fitting and Pipe Laying	2
PLMB 1120 Drain, Waste and Vent I	2
PLMB 1125 Drain, Waste and Vent II	2
PLMB 1130 Piping Systems	2
TERM 2	
PLMB 1205 Backflow Prevention	2
PLMB 1210 Commercial Plumbing	2
PLMB 1225 Building Maintenance and Repair	2
PLMB 1230 Hydronics and Plumbing Systems	2
PLMB 1215 Plumbing Theory and Repair	2
PLMB 1220 Plumbing Code Applications	3

Certificate in Plumbing 26

**** See page 57 for information on course categories.***

PRE-MANAGEMENT

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

■ Associate of Arts Degree in Pre-Management

PROGRAM DESCRIPTION

Pre-management is an associate of arts degree designed to substantially fulfill the freshman and sophomore course requirements for admission to bachelor's degree programs in business at New Mexico colleges and universities; the degree's general education curriculum is accepted for transfer toward the general education core. Agreements have been made with New Mexico Highlands University (NMHU) and the University of New Mexico (UNM).

Students should communicate with the pre-management associate dean or program chairs as well as with admissions advisors at the college or university where they plan to complete the bachelor's degree. Courses taken with the credit/no credit option, transfer credits and non-traditional credits that have been accepted by CNM may not be accepted by the transfer institution. Many four-year institutions have minimum grade point average requirements for admission as well as a requirement that all coursework be completed with grades of C or better.

SPECIAL REQUIREMENTS

Additional Courses: Contact the School of Business & Information Technology at (505) 224-3811 and transfer institution(s) to determine if additional courses are required or accepted toward specific four-year graduation requirements.

Transfer Information: Student selection of Anthropology 1150 and Geography 1101 for the Pre-Management degree should depend upon articulation/transfer requirements of four-year transfer institution. Since some New Mexico schools classify Anthropology 1150 and Geography 1101 as a physical science, CNM pre-management students may use either course to meet the three credit hour biology/physical science requirement. However, CNM's acceptance of these classes to meet the biology/physical science requirement does not bind the transfer institution to the same classification. Students are cautioned to check with their transfer institution to ensure that the use of those classes to meet that requirement will be accepted by the institution in that category.

UNM: It is recommended that students coordinate their choices of classes with the Anderson School of Management (ASM) pre-admission requirements listed on the ASM website bba.mgt.unm.edu/admissions/requirements.asp. Students should contact the ASM admissions office at (505) 277-3888 one to two semesters prior to their expected start date to begin the application process.

NMHU: Students should contact NMHU in Rio Rancho at (505) 891-2046 one to two semesters prior to their expected start date to begin the application process.

CAREER AND EDUCATIONAL OPPORTUNITIES

Careers that may require a bachelor's degree in business range widely from accounting, financial analysts, personal financial advisors, employment, recruitment and placement specialists, insurance sales agents and marketing managers to name a few. The U.S. Department of Labor/Bureau of Statistics predicts that the demand for professionals in many of these areas is strong and is expected to remain so over the new few years.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 1310 Intermediate Algebra or College Level Math score of	60
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ENG 1101 College Writing	3
MATH 1315 College Algebra	3-4
Or	
MATH 1415 Advanced Algebra	
IT 1010 Introduction to Computers	3
PSY 1105 Introduction to Psychology	3
Or	
SOC 1101 Introduction to Sociology	
*FINE ARTS ELECTIVE	3
TERM 2	
ENG 1102 Analytic and Argumentative Writing	3
ECON 2200 Macroeconomics	3
MATH 1460 Elements of Calculus I or higher level calculus	3
*BIOLOGICAL/PHYSICAL SCIENCE AND LAB COURSE	4
Or	
ANTH 1150 Evolutionary Anthropology w/Lab	
Or	
GEOG 1101 Physical Geography w/Lab	
*SOCIAL/BEHAVIORAL SCIENCE ELECTIVE	3

See page 57 for information on course categories.

TERM 3

ECON 2201 Microeconomics....3
ACCT 1111 Accounting IA....3
*BIOLOGICAL/PHYSICAL SCIENCE ELECTIVE....3
Or
ANTH 1150 Evolutionary Anthropology
Or
GEOG 1101 Physical Geography
ENG 2219 Technical Writing (recommended)....3
Or
ENG 2220 Expository Writing
Or
COMM 1130 Public Speaking
Or
COMM 2221 Interpersonal Communication Studies
Or
COMM 2232 Business and Professional Communication Studies
MATH 1330 Introduction to Probability and Statistics....3

TERM 4

*SOCIAL/BEHAVIORAL SCIENCE ELECTIVE....3
*FOREIGN LANGUAGE ELECTIVE....3-4
ACCT 1112 Accounting IB....3
*HUMANITIES ELECTIVE....3
BA 2240 Business Law....3
ACCT 1210 Accounting II....3

Associate of Arts in Pre-Management....64-66

*** See page 57 for information on course categories.***

PROFESSIONAL COOKING

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology at (505) 224-3811or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

■ Certificate of Completion in Professional Cooking

PROGRAM DESCRIPTION

The Professional Cooking Certificate is a three-term, 28-30 credit-hour program. Professional cooking is an excellent field for students seeking a challenging career in a rapidly growing culinary and hospitality industry. Students will study buffet, banquet and á la carte cooking techniques, safety, sanitation, nutrition, knife skills, teamwork skills, equipment use, human relations, supervisory skills, dining room skills, business practices, menu development, culinary math and computer skills. Classes include classroom and lab time. The Professional Cooking Certificate program is a required part of the Culinary Arts associate of applied science degree which is nationally accredited by the American Culinary Federation (ACF) Education Foundation Accrediting Commission. ACF accreditation assures that a program is meeting at least a minimum of standards and competencies set for faculty, curriculum and student services. For more information about ACF, go to acfchefs.org. Students may participate in culinary competitions with ACF, SkillsUSA and other extracurricular activities.

SPECIAL REQUIREMENTS

Students entering CULN 1111 and subsequent CULN courses are required to purchase four sets of chef's uniforms, dining room service attire, textbooks and tools. Students should be able to lift 30 pounds and must present a physician's certificate to CNM at the start of classes stating that the student is free from tuberculosis in a transmissible form. Students must be able to stand for the duration of lab classes.

CAREER AND EDUCATIONAL OPPORTUNITIES

Jobs are available in restaurants, resorts, schools, retirement homes, hospitals, cruise ships, bed and breakfasts, catering companies, convention centers and other areas. Types of employment range from prep and pantry cooks to line or banquet cooks, as well as managers or chefs and include employment opportunities from the fast food industry and fine dining establishments to casinos and resorts.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0750 Basic College Mathematics	57
RDG 0750 Reading Improvement	69

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
CULN 1101 Introduction to Culinary Arts	1
Or	
HT 1101 Introduction to Tourism	3
CULN 1102 Applied Culinary Math	1
CULN 1103 Safety and Sanitation Principles	3
IT 1010 Introduction to Computers	3
TERM 2	
CULN 1111 Cooking Fundamentals I	5
CULN 1112 Cooking Fundamentals II	5
TERM 3	
CULN 2211 Global Cuisines I	5
CULN 2212 Global Cuisines II	5

Certificate in Professional Cooking.....28-30

**** See page 57 for information on course categories.***

PROFESSIONAL PILOT AND FLIGHT INSTRUCTION

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

■ **Certificate of Completion in Professional Pilot and Flight Instruction**

PROGRAM DESCRIPTION

The certificate in Professional Pilot and Flight Instruction offers students advanced single engine ratings and entry-level access as flight instructors.

Students may choose to take their flight lessons from independent flight instructors or at any of the many high quality flight schools in the area, most of which are within thirty minutes driving time of the campus

SPECIAL REQUIREMENTS

Individuals who wish to become pilots must meet the medical requirements for a second-class FAA medical certificate. *Note: please check course descriptions beginning on page 197 (subject code: AVIA) for course fees in this program.*

CAREER AND EDUCATIONAL OPPORTUNITIES

With the increased numbers of moderately priced business aircraft entering the market and the increasing retirements of current commercial pilots, the air transport industry will have an increased demand for pilots.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ENG 1101 College Writing	3
MATH 1210 or higher (except MATH 2110 or MATH 2096)	3-4
AVIA 1110 Introduction to Modern Commercial Air Operations	2
AVIA 1400 Private Pilot	3
AVIA 1492 Private Pilot Lab	3
TERM 2	
PHYS 1010 Introduction to Physics	3
AVIA 1500 Instrument Rating and Commercial Pilot I	3
AVIA 1592 Instrument Rating and Commercial Pilot I Lab	3
AVIA 1140 Meteorology	3
AVIA 1145 Aircraft, Engines and Maintenance	3
TERM 3	
AVIA 1600 Commercial Pilot II	3
AVIA 1692 Commercial Pilot II Lab	3
TERM 4	
AVIA 2100 CFI and CFI II RATINGS	3
AVIA 2192 CFI and CFI II RATINGS LAB	3

Certificate in Professional Pilot and Flight Instruction 41-42

**** See page 57 for information on course categories.***

RADIOLOGIC TECHNOLOGY

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-5208.

cnm.edu/depts/hwps/progs

■ Associate of Science Degree in Radiologic Technology

PROGRAM DESCRIPTION

Radiologic technology is a healthcare profession for practitioners who work in hospitals, clinics and free-standing imaging centers. The radiographer is a member of the healthcare team who works directly with the patient and the physician in performing a wide variety of diagnostic and interventional therapy procedures. The rapid expansion of medical diagnostic imaging has greatly increased the diversity and utility of medical diagnosis. Radiologic Technology is a 5-term associate of science degree program. The radiographer must be proficient in the knowledge of radiographic exposure, anatomy, patient positioning, the operation of specialized equipment and the care and management of the patient. Upon completion of the program, students will be eligible to take the certification examination administered by the American Registry of Radiologic Technologists (ARRT). The program meets the ARRT (American Registration of Radiologic Technologist) accreditation requirements through the NCACS-HLC institutional accreditation of Central New Mexico Community College.

SPECIAL REQUIREMENTS

Before entering the program, students must have a high school diploma or equivalent, be admitted to CNM, declare Radiologic Technology as a major, establish a college GPA of 2.0 or better, and complete the course prerequisites.

Selection of students into the program will be determined by the number of completed courses required for the degree, and date of declared major in Radiologic Technology.

Students petitioning for the Radiologic Technology program may take the following WorkKeys tests. All tests must be completed and have achieved the minimum scores listed below to get preference for petitioning.

- Listening – level 3
- Locating Information (Health Care version) – level 5
- Observation – level 5
- Teamwork – level 4

WorkKeys testing may be taken at the following locations: WorkKeys Testing Center, Main Campus, room TC-107, 224-4235. For more information on how WorkKeys scores are used in the petitioning process, please visit our program website: cnm.edu/depts/hwps/progs/allied/radtech/index.php

Additionally, students may get preference for petitioning by having a CNM GPA of 2.5 or better and the number of times they petition.

Once admitted to the core courses, students pay a program fee to cover the cost of the uniform, name tag, hospital parking permits, film markers and preventative lab tests in case of needle stick or other exposure to bodily fluids; a fee will also be charged to each clinical course for Dosimeter film badges. Students are required to provide proof of HLTH 1001 completion and must remain current in certifications issued in that course (CPR, bloodboorne pathogens, HIPAA, and first aid), a recent physical exam and current immunizations (tetanus, rubella, rubeola and hepatitis B) and PPD, prior to working with patients in a clinical setting.

Students may be required to undergo routine drug screening and a criminal background check prior to beginning their clinical experience. Students are required to provide documentation from a licensed healthcare provider that they can safely lift a minimum of 50 lbs. prior to beginning their clinical experience.

CAREER AND EDUCATIONAL OPPORTUNITIES

Hospitals are the primary employer of radiologic technologists although national indicators predict that a greater number of new jobs will be in physician offices and clinics. A career in radiologic technology offers vast opportunities for advancement in specialized imaging techniques.

A list of current transfer agreements are available at cnm.edu/depts/academicaffairs/oeu/Post-Secondary_School_Relations.php

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

ENROLLING AT CNM
STUDENT RESOURCES
EDUCATIONAL OPTIONS
DISTANCE LEARNING
NON-CREDIT OPTIONS
ACADEMIC POLICIES AND REQUIREMENTS
MOVING ON
PROGRAMS OF STUDY
COURSE DESCRIPTIONS
CODES AND POLICIES
GLOSSARY, INDEX AND MAPS

**** See page 57 for information on course categories.***

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	72
BIO 1410/1492 Biology for Health Sciences/Laboratory or passing score on the biology placement exam	
BIO 2210/2292 Human Anatomy and Physiology I/Lab	
CHEM 1410 /1492 Introduction to Chemistry/Lab or CHEM 1710/1792 General Chemistry/Lab	
ENG 1101 College Writing	

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED COURSES

COURSE	CREDIT HOURS
BIO 2310/2292 Human Anatomy and Physiology II/Lab	4
MATH 1210 Methods of Problem Solving or1310 Intermediate Algebra	4
PSY 1105 Introduction to Psychology	3
HLTH 1001 Clinical Preparation	1

SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
RADT 1003 Introduction to Radiologic Technology	1
RADT 1005 Fundamentals of Radiography	3
RADT 1070 Radiography Positioning I	3
RADT 1090 Clinical Radiography I	5
TERM 2	
RADT 1503 Patient Care in Radiography	2
RADT 1510 Radiobiology and Protection	3
RADT 1570 Radiographic Positioning II	3
RADT 1590 Clinical Radiography II	4
TERM 3	
RADT 2005 Introduction to Quality Assurance	2
RADT 2010 Radiographic Imaging I	3
RADT 2090 Clinical Radiography III	6
RADT 2092 Radiographic Film Critique Lab	1
TERM 4	
RADT 2404 Radiographic Imaging II	1
RADT 2408 Radiographic Pathology	2
RADT 2410 Radiographic Physics and Instrumentation	3
RADT 2490 Clinical Radiography IV	6
TERM 5	
RADT 2810 Radiologic Technology Seminar	2
RADT 2890 Clinical Radiography V	8

Associate of Science in Radiologic Technology 70

**** See page 57 for information on course categories.***

RESIDENTIAL WIRING

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

■ Certificate of Completion in Residential Wiring

PROGRAM DESCRIPTION

The Residential Wiring program provides students the opportunity to gain the knowledge and technical skills necessary to enter the electrical trade. A certificate is obtained by the student after successful completion of two terms and is accepted by the State of New Mexico Construction Industries Division as one year of experience toward the two-year experience requirement for the State of New Mexico Residential Wireman's Certificate of Competence.

Residential Wiring emphasizes the applications of the National Electrical Code (NEC), NM State Electrical Code, (NMSEC) and local electrical codes. Students learn electrical theory, material identification and use, Occupational Safety Hazard Administration (OSHA) compliance, residential wiring and services, conduit bending, installation, blueprint reading and electrical troubleshooting. Theory and lab courses are designed to be taken together to give students an in-depth understanding of the concepts of the residential electrical trade. First term students obtain knowledge and hands on training for personal and tool safety, meter reading, electrical circuitry, electrical formulas, electrical calculations, material identification, AC/DC motor operation and troubleshooting. Second term students are taught residential blueprint reading, applications of the NEC, NMSEC and local electrical codes, installation of branch circuits and feeders, residential services, single pole, three-way and four-way switch circuits, door chime installation, dryer and range circuits, swamp cooler circuitry and hand bending of electrical metallic tubing.

SPECIAL REQUIREMENTS

Students must have normal color differentiation as electricians they work with identified colored wires requiring accurate connections. The moving and installation of electrical materials and equipment necessitate that the electrical worker be able to lift at least 50 pounds. Electrical workers may work in various internal and external environments and should be free of chronic respiratory diseases and allergies. Most employers require a valid driver's license and clean driving record. Please contact Program Director for a list of required tools.

Fees: Program fees are published in the *Schedule of Classes*. These fees cover the cost of tools required for lab activities.

CAREER AND EDUCATIONAL OPPORTUNITIES

The New Mexico Department of Workforce Solutions predicts a continued increase in the demand for electrical workers for years to come. One hundred percent of CNM Electrical Trades graduates obtained employment in the electrical trade in 2007- 2008. The Department of Workforce Solutions reports that the starting wages for electrical workers range from $14.51 to $24.68 per hour or $30,180 to $51,318 annually. Coursework from Electrical Trades/Residential Wiring may be applied toward the Associate of Applied Science Degree in Construction Technology.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0750 Basic College Mathematics or Arithmetic score of	57
RDG 0750 Reading Improvement	69

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	ACCUPLACER SCORE OR EQUIV.
TERM 1	
ELTR 1005 Electrical Theory I	4
ELTR 1010 Electrical Math I	3
ELTR 1092 Electrical DC/AC Lab	3
ELTR 1192 AC Circuitry, Motors and Generators	3
TERM 2	
ELTR 1205 Blueprint Reading I	3
ELTR 1210 Electrical Theory II	4
ELTR 1292 Residential Wiring Lab	3
ELTR 1392 Residential Electrical Services	3

Certificate in Residential Wiring 26

**** See page 57 for information on course categories.***

RESPIRATORY THERAPY

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-4138.

cnm.edu/depts/hwps/progs

■ Associate of Science Degree in Respiratory Therapy

PROGRAM DESCRIPTION

Respiratory care is an allied health profession specializing in diagnostic testing, therapeutic treatment and critical care support for patients suffering from life-threatening or chronic cardiopulmonary diseases. Under medical direction, Respiratory Therapists assess and treat patients, monitor and evaluate cardiopulmonary function, perform diagnostic testing and maintain life-support systems for patients in critical care settings. The curriculum includes classroom, laboratory and supervised clinical instruction covering cardiopulmonary anatomy, physiology and pathophysiology, therapeutic treatments, cardiopulmonary diagnostic technology, critical care and life-support technology for adults, children and infants, respiratory home care and pulmonary rehabilitation. The CNM Respiratory Therapy Program is accredited by the Commission on Accreditation of Allied Health Educations Programs (CAAHEP) and the Committee on Accreditation for Respiratory Care (CoARC) and prepares graduates for the Certification (CRT) and Registry (RRT) credentials by the National Board for Respiratory Care (NBRC) and for Licensure (RCP) by the State of New Mexico Respiratory Care Board.

SPECIAL REQUIREMENTS:

Students must complete prerequisite arts and sciences courses, declare Respiratory Therapy as a major, establish a CNM GPA of 2.0 or better and complete the petition process to begin the core Respiratory Therapy courses. Selection is based on the number of prerequisite and required arts and sciences courses completed and the date of declared major in Respiratory Therapy.

Once admitted to the RT core courses, students pay a program fee to cover the cost of the uniform, stethoscope, name tag, hospital parking permits, criminal background checks, drug screening and lab tests in the event of a needle stick or exposure to bodily fluids. Students will also pay an ACLS certification fee and a program fee during the final term of the program to cover the cost the National Board assessment tests.

Students enrolled in the school health programs must be in good physical and psychological health. Reasonable accommodations are made for those students with disabilities. However, some disabilities may prohibit students from completing program specific competencies or gaining employment.

Students with a disability that may interfere with completing program competencies, including providing safe patient care, are advised to contact the HWPS School Office at (505) 224-4111 for more information. Students must have a physical exam and a completed health form with evidence of current immunizations (PPD, DTP, MMR and hepatitis B), the ability to perform specific activities and the ability to safely lift a minimum of 50 lbs. before beginning clinical coursework.

Criminal Background/Drug Screen: Students are required to undergo a routine drug screening and a state and federal criminal background check with fingerprints prior to starting the program or prior to beginning their clinical experiences. For information on the criminal background check, please note the complete description on page 56 under the School of Health, Wellness & Public Safety description. Students with a disqualifying conviction will not be allowed to start or remain in the program unless they successfully go through administrative reconsideration through the State of New Mexico; additionally any student found to have a disqualifying conviction will not be allowed to register for any Allied Health or Nursing programs. Students should contact appropriate credentialing or licensing agencies and local or regional industry for hiring and employment practices. Contact the HWPS School Office at (505) 224-4111 for more information.

All School of Health, Wellness & Public Safety career and technical courses required for graduation must be taken for a traditional grade of A, B or C. For Health, Wellness & Public Safety career and technical courses offered only for credit/no credit, a grade of credit (CR) must be earned.

CAREER AND EDUCATIONAL OPPORTUNITIES:

Graduates of the CNM Respiratory Therapy Program are employed by acute care hospitals, transitional care hospitals, home health care agencies, skilled nursing homes and cardiopulmonary rehabilitation centers within New Mexico and throughout the nation. The CNM program has a 100 percent placement rate for its graduates. Graduates can attain specialty credentials through employment training in specialized areas of cardiopulmonary care. They are also encouraged to continue education toward a bachelor of science degree in respiratory therapy, general science, education or management to pursue leadership positions in the field.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
High School Diploma or Equivalent	
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra	score of 72
BIO 1410/1492 Bio/Health Sciences Lab or passing score on the biology placement exam	
CHEM 1410/1492 Introduction to Chemistry/Lab or Chemistry 1710/1792 or passing score on the biology placement exam	
HLTH 1001 Clinical Preparation	

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

**** See page 57 for information on course categories.***

REQUIRED PROGRAM COURSES

COURSE	CREDIT HOURS
BIO 2110/2192 Microbiology/Laboratory	4
BIO 2210/2292 Human Anatomy and Physiology I/Laboratory	4
BIO 2310/2392 Human Anatomy and Physiology II/Laboratory	4
MATH 1210 Methods of Problems Solving	3-4
Or	
MATH 1310 Intermediate Algebra	
Or	
MATH 1315 College Algebra	
ENG 1101 College Writing	3
Or	
ENG 1102 Analytic and Argumentative Writing	
PHIL 2247 Biomedical Ethics	3

REQUIRED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1 (FALL ONLY)	
RT 1010/1070 Respiratory Therapy Principles and Practices I	4
RT 1030 Pharmacology of Respiratory Therapy	3
RT 1090 Clinical Experiences I	4
TERM 2 (SPRING ONLY)	
RT 1510/1570 Respiratory Therapy Principles and Practices II	4
RT 1540 Cardiopulmonary Pathophysiology I	1
RT 1590 Clinical Experiences II	4
TERM 3 (SUMMER ONLY)	
RT 2010/2070 Advanced Respiratory Therapy I	4
RT 2040 Cardiopulmonary Pathophysiology II	1
RT 2090 Advanced Clinical Experiences I	4
TERM 4 (FALL ONLY)	
RT 2410/2470 Advanced Respiratory Therapy II	4
RT 2440 Cardiopulmonary Pathophysiology III	1
RT 2490 Advanced Clinical Experiences II	4
TERM 5 (SPRING ONLY)	
RT 2810/2870 Advanced Respiratory Therapy III	4
RT 2840 Cardiopulmonary Pathophysiology IV	1
RT 2890 Advanced Clinical Experiences III	4

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** See page 57 for information on course categories.*

SURGICAL TECHNOLOGY

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-4166.

cnm.edu/depts/hwps/progs

■ Certificate of Completion in Surgical Technology

PROGRAM DESCRIPTION

Three Term Certificate: Surgical Technology is a three-term certificate program that presents the knowledge and skills necessary to work in a surgical environment and function as a vital member of the operating room team. The learning environment consists of the campus classroom and laboratory along with local hospitals, day surgery centers and physicians offices. Accreditation is from the Commission of Accreditation of Allied Health Education Programs (CAAHEP). Students will be administered the Surgical Technologist National Certifying Examination just prior to graduation. Surgical Technologists who take and pass this examination are certified and authorized to use the initials CST to designate their status as Certified Surgical Technologist.

Accelerated Alternate Delivery (AAD) Option: is designed to enroll currently employed surgical technologists who have been informally (on-the-job) trained or who are graduates from other programs. Upon successful completion of all program requirements, the student will be eligible to sit for the Surgical Technologist National Certifying Examination.

SPECIAL REQUIREMENTS

Arts and Sciences Courses: must be completed before beginning the Surgical Technology core courses

Program Orientation: One week prior to beginning ST 1010, students are required to attend a program orientation. Students may be dropped from the program for failure to attend the mandatory meeting. It is the responsibility of the student to insure the director has a current telephone and mailing address to insure proper notification of this meeting. All arts and sciences courses must be completed prior to enrolling in ST 1010. It is strongly recommended that anatomy and physiology be completed within the past five years.

Criminal Background: Students are required to undergo a state and federal criminal background check with fingerprints prior to starting the program or prior to beginning their clinical experiences. Students with a disqualifying conviction will not be allowed to start or remain in the program; additionally any student found to have a disqualifying conviction will not be allowed to register for any Allied Health or Nursing programs.

Drug Screen: Students are required to undergo a routine drug screening prior to starting the Program. Students with a positive drug screen will not be allowed to enter the Program.

Physical Requirements: Students interested in the Surgical Technology program, must be in good physical and psychological health. The Surgical Technology program requires documentation of a recent health screening from a licensed health care provider confirming the ability to safely perform program specific activities and lift a minimum of 50 pounds. Reasonable accommodations are made for those students with disabilities. However, some disabilities may prohibit students from completing program specific competencies or gaining employment. Students with a disability that may interfere with completing program competencies, which may include providing safe patient care, are advised to contact the Program Director at (505) 224-4166 for more information. Prior to enrollment in Surgical Technology clinical courses, students are required to provide proof of a recent physical exam, PPD and current immunizations (including tetanus, rubella, rubeola and hepatitis B).

Fees: Program fees are published in the *Schedule of Classes*. The program fee covers the cost of lab coat, scrubs, nametags, hospital parking permits and preventive lab tests in case of a needle stick or other exposure to bodily fluids, x-ray dosimeters, and the national certification exam.

Transportation Requirements: Students must arrange for their own transportation to all classes, observations and clinical rotations. Students may be required to attend clinical rotations at sites up to two hours away from Albuquerque, and the clinical rotations be scheduled during evening and/or weekend shifts.

ACCELERATED ALTERNATE DELIVERY (AAD) OPTION:

- Qualified students must complete all required program courses as listed on page 185.
- Students must have a passing score of 80% on the Surgical Technology Student Achievement Exam (SAE).
- Submit an application form and verification of current employment as a surgical technologist using the Employment Verification Form, along with two professional letters of recommendation, on letterhead, attesting to current competency as a surgical technologist (one letter must be from a current supervisor or employer) to the program director.
- Students must also provide documentation of a minimum of 150 surgical procedures. Completed surgical procedures must be done within 10 years from the date of admission to the AAD program.
- Students must have a minimum of 10 first scrub solo cases in each of the following areas: General surgery; Gynecologic surgery; Orthopedic surgery; Genitourinary surgery; Ophthalmology surgery; Plastic surgery and Reconstructive surgery; Cardiovascular surgery, Thoracic surgery, and Peripheral Vascular surgery; and Otorhinolaryngology surgery.
- Qualified students must then complete the theory portion of the program (ST 1010, ST 1510, and ST 2010).
- In addition, these qualified students must pass a challenge practical exam for the lab and clinical portion of the program.

Upon completion of the above criteria, the credits for ST 1092, ST 1592, ST 1590, ST 2092, and ST 2090 would then be awarded to the students. Students interested in the Accelerated Alternate Delivery (AAD) Option should contact the Surgical Technology Program Director at (505) 224-4166.

See page 57 for information on course categories.

CAREER AND EDUCATIONAL OPPORTUNITIES

Surgical Technologist perform may roles within and outside the operating room or surgical setting, but the primary role is to prepare and protect the sterile field, pass instruments, and assist the surgeon in an operative procedure. There is a demand for Surgical Technologists in Albuquerque and through out the state of New Mexico.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

SPECIAL NOTES

Accreditation for AAD option is pending.

COURSE PREREQUISITE(S)

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

COURSE	ACCUPLACER SCORE OR EQUIV.
High School diploma or equivalent	
ENG 1101 College Writing	110
MATH 0750 Basic College Mathematics or Arithmetic score of	57

REQUIRED PROGRAM COURSES

COURSE	CREDIT HOURS
COMM 2221 Interpersonal Communications Studies	3
BIO 1410/1492 Biology for Health Sciences/Laboratory	4
BIO 1310/1392 Human Anatomy and Physiology for Non-Majors/Laboratory	4
Or	
BIO 2210/2292 Human Anatomy and Physiology I/Laboratory	4
And	
BIO 2310/2392 Human Anatomy and Physiology II/Laboratory	4
HIT 1020 Medical Terminology and Anatomy	3

REQUIRED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1 (SUMMER ONLY)	
HLTH 1001 Clinical Preparation	1
ST 1010 Beginning Surgical Technology I	3
ST 1092 Surgical Technology Lab I	6
TERM 2 (FALL ONLY)	
ST 1510 Beginning Surgical Technology II	3
ST 1590 Surgical Technology Clinical I	8
ST 1592 Surgical Technology Lab II	2
TERM 3 (SPRING ONLY)	
ST 2010 Surgical Technology III	3
ST 2090 Surgical Technology Clinical II	8
ST 2092 Surgical Technology Lab III	2

Certificate in Surgical Technology.....50-54

RECOMMENDED SEQUENCE OF COURSES ACCELERATED ALTERNATE DELIVERY (AAD) OPTION

****Requires Program Chair (Director) Approval***

See Accelerated Alternate Delivery Option, page 184.

COURSE	CREDIT HOURS
TERM 1 (SUMMER ONLY)	
ST 1010 Beginning Surgical Technology I	3
TERM 2 (FALL ONLY)	
ST 1510 Beginning Surgical Technology II	3
TERM 3 (SPRING ONLY)	
ST 2010 Beginning Surgical Technology III	3
Upon completion of the AAD criteria, the credits for ST 1092, ST 1592, ST 1590, ST 2092, and ST 2090 would then be awarded to the students	26

**** See page 57 for information on course categories.***

TEACHER EDUCATION

School of Communication, Humanities & Social Sciences

CONTACT INFORMATION

Program Director: (505) 224-3597, Program Outreach Specialist: (505) 224-3607

cnm.edu/teachered

■ Associate of Arts Degree in Teacher Education (Concentrations in Career and Technical Education, Bilingual Elementary, Elementary, Secondary, Special Education)

PROGRAM DESCRIPTION

The Teacher Education associate degree program facilitates an introduction to learning the theory and skills required for working with children in the public school system (K-12). Students will also gain practical experience in the classroom. Students interested in teaching in the early grades (PreK-3rd grade) should also consider the Birth-3rd Grade Teacher concentration in the Early Childhood Multicultural Education Degree (see page 115).

This program leads to an Associate of Arts degree in one of five concentrations:

- Career and Technical Education: This concentration is designed for students who have already earned a certificate and/or AAS degree in selected vocational/technical areas. Examples of approved certificate/AAS include: automotive technology, culinary arts, electronics technology, manufacturing, and welding.
- Elementary Education
- Bilingual Elementary Education
- Secondary Education
- Special Education

SPECIAL REQUIREMENTS

Students may be required to undergo a TB test and a criminal background check prior to beginning their field / practicum experience. All courses required for transfer must be taken for a traditional grade of A, B, C, etc. For courses offered only for credit / no credit, a grade of credit (CR) must be earned.

CAREER AND EDUCATIONAL OPPORTUNITIES

The associate of arts degree enables graduates to serve as educational assistants or substitute teachers within New Mexico public schools. Graduates from the program may transfer to four-year institutions that grant bachelors degrees in education. The Career and Technical Education concentration is specifically articulated for transfer to Eastern New Mexico University's online Bachelors degree in Professional Technical Education.

Teaching remains a high demand field in New Mexico, especially in the areas of Bilingual Elementary, Secondary (Math or Science), and Special Education. The national and state trend in Career and Technical education in high schools has also increased the demand for skilled Career and Technical educators. The starting salary for teachers in New Mexico public schools is $30,000. Within 7 years of teaching, teachers can move to a salary of $50,000.

The Education Department also offers courses for students who have already earned a Bachelors degree and want to transition to teaching through the Alternative Teacher Licensure in the following areas:

- Early Childhood (PreK-3rd Grade)
- Elementary (K-8)
- Secondary (7-12)
- Special Education (K-12)

Students should refer to page 75 for the recommended course sequence for each Alternative Teacher Licensure area.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

SPECIAL NOTES

Teacher licensure regulations determine eligible vocational/technical areas for the Career and Technical concentration. Students seeking this degree and/or intending to transfer to ENMU's online program in Professional Technical Education must be advised by the program director.

Native Spanish speakers or speakers of Native American languages should contact program director for options to SPAN requirements for the Bilingual Elementary Concentration.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
RGD 0950 Reading and Critical Thinking	80
ENG 0950 Essay Writing	85
MATH 1310 Intermediate Algebra or College Level Math score of	60

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

**** See page 57 for information on course categories.***

CAREER AND TECHNICAL EDUCATION CONCENTRATION

REQUIRED COURSES

COURSE	CREDIT HOURS
BIOLOGICAL/PHYSICAL SCIENCE W/LAB (SEE LIST)	8
COMM 1130 or COMM 2221 OR COMM 2270 (COMM 2270 Recommended)	3
EDUC 1102 Introduction to Teaching: Theory and Lab (FALL/SPRING)	4
EDUC 2207 Educational Psychology	3
ENG 1101 College Writing	3
ENG 1102 or ENG 1119	3
FINE ARTS ELECTIVE (SEE LIST)	3
HUMANITIES ELECTIVE (SEE LIST)	3
IT 1010 Introduction to Computers	3
MATH 1315 or higher	3
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	6
Approved Technical Certificate/Associate of Applied Science Degrees	28+

Students must see program director if certificate/degree is not included in this list as eligibility for degree is guided by teacher licensure regulations.

APPROVED TECHNICAL CERTIFICATE/AAS DEGREES

Automotive Technology, Certificate
Baking, Certificate
Carpentry, Certificate
Construction Management Technology, Degree
Construction Technology, Degree
Culinary Arts, Degree
Electrical Trades, Certificate
Electronics Technology, Certificate
Hospitality and Tourism, Certificate and Degree
Machine Tool Technology, Certificate
Manufacturing Technology, Certificate and Degree
Mechanical Technology, Degree
Metals Technology, Degree
Photonics Technology, Certificate and Degree
Professional Cooking, Certificate
Welding, Certificate

Associate of Arts in Teacher Education (Career and Technical Concentration) 70

BIOLOGICAL/PHYSICAL SCIENCE ELECTIVES (SELECT FROM TWO DIFFERENT SUBJECT AREAS)
ASTR 1110/1192; BIO 1010/1092 or 1110/1192 or 1510/1592; CHEM 1410/1492 or 1710/1792; PHYS 1510/1592 or 1710/1792

SOCIAL/BEHAVIORAL SCIENCE ELECTIVES (SELECT FROM AT LEAST TWO DIFFERENT SUBJECT AREAS)
ANTH 1101, 1130, ECON 2200, 2201, PSCI 1110, 2200, 2220, 2240, PSY 1105, SOC 1101

HUMANITIES ELECTIVES
Any HIST, HUM 1111, 1121, ENG 1150, 2206, 2207, 2208, 2209, 2210, 2250, 2251, 2252, 2262, 2263, 2270, 2285, 2287, 2288, PHIL 1102, 1110, 1156, 2245, 2250, 2257, RGLN 1107, 2263

FINE ARTS ELECTIVES
ARTH 1101, 2201, 2202, 2250, 2251, MUS 1139, 1140, THEA 1122

BILINGUAL ELEMENTARY, ELEMENTARY, AND SPECIAL EDUCATION CONCENTRATIONS

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
Concentration Course Requirement (SEE LIST)	3-5
EDUC 2265 or IT 1010 (EDUC 2265 RECOMMENDED FOR TRANSFER)	3
ENG 1101 College Writing	3
HIST 1101 or HUM 1111	3
TERM 2	
Concentration Course Requirement (BILINGUAL CONCENTRATION ONLY)	3-4
EDUC 2204 or EDUC 2207	3
ENG 1102 Analytic and Argumentative Writing	3
HIST 1102 or HUM 1121	3
MATH 1110 Mathematics for Elementary and Middle School Teachers I	3
TERM 3	
ARTH 1101 or 2201 or 2202	3
MATH 1115 or MATH 1315 or higher	3
HIST 1161 or 1162	3
NS 1010 or BIOLOGICAL/PHYSICAL SCIENCE W/LAB (SEE LIST)	4
TERM 4	
Concentration Course Requirement (SEE LIST)	3-5
COMM 1130 or COMM 2221 Or COMM 2270 (COMM 2270 RECOMMENDED)	3
MUS 1139 or 1140 or THEA 1122	3
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3
NS 1015 or BIOLOGICAL/PHYSICAL SCIENCE ELECTIVE W/LAB (SEE LIST)	4
TERM 5	
Concentration Course Requirement (BILINGUAL CONCENTRATION ONLY)	3-4
HIST 2260 History of New Mexico	3
NS 2010 or BIOLOGICAL/PHYSICAL SCIENCE ELECTIVE W/LAB (SEE LIST)	4
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3

BILINGUAL ELEMENTARY CONCENTRATION COURSE REQUIREMENTS

COURSE	CREDIT HOURS
ANTH 1110 Language, Culture, and the Human Animal	3
EDUC 1102 Introduction to Teaching: Theory and Lab (FALL/SPRING)	4
SPAN 1101 or higher	3-4
SPAN 1102 or higher	3-4

ELEMENTARY CONCENTRATION COURSE REQUIREMENTS

COURSE	CREDIT HOURS
EDUC 1102 Introduction to Teaching: Theory and Lab (FALL/SPRING)	4
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3

SPECIAL EDUCATION CONCENTRATION COURSE REQUIREMENTS

COURSE	CREDIT HOURS
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3
SPED 2201 Education of the Exceptional Person (SPRING)	3
SPED 2290 Introduction to Special Education Practicum (SPRING)	2

Associate of Arts in Teacher Education (Bilingual, Elementary, Special Education) 64-72

BIOLOGICAL/PHYSICAL SCIENCE ELECTIVES (SELECT FROM THREE DIFFERENT SUBJECT AREAS)
ASTR 1110/1192; BIO 1010/1092 or 1110/1192 or 1510/1592; CHEM 1410/1492or 1710/1792; PHYS 1510/1592 or 1710/1792

SOCIAL/BEHAVIORAL SCIENCE ELECTIVES (SELECT FROM AT LEAST TWO DIFFERENT SUBJECT AREAS)
ANTH 1101, 1130, ECON 2200, 2201, PSCI 1110, 2200, 2220, 2240, PSY 1105, SOC 1101

** See page 57 for information on course categories.*

SECONDARY CONCENTRATION

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
EDUC 2265 or IT 1010 (EDUC 2265 RECOMMENDED FOR TRANSFER)	3
ENG 1101 College Writing	3
HIST 1101 or HUM 1111	3
MATH 1315 or higher	3
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3
TERM 2	
EDUC 2204 or EDUC 2207	3
ENG 1102 Analytic and Argumentative Writing	3
HIST 1102 or HUM 1121	3
BIOLOGICAL/PHYSICAL SCIENCE W/LAB (SEE LIST)	4
TERM 3	
ARTH 1101 or 2201 or 2202	3
EDUC 1102 Introduction to Teaching: Theory and Lab (FALL/SPRING)	4
HIST 1161 or 1162	3
BIOLOGICAL/PHYSICAL SCIENCE ELECTIVE W/LAB (SEE LIST)	4
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3
TERM 4	
COMM 1130 or COMM 2221 OR COMM 2270 (COMM 2270 RECOMMENDED)	3
MUS 1139 or 1140 or THEA 1122	3
SOCIAL/BEHAVIORAL SCIENCE ELECTIVE (SEE LIST)	3
HIST 2260 History of New Mexico	3
BIOLOGICAL/PHYSICAL SCIENCE ELECTIVE W/LAB (SEE LIST)	4

Associate of Arts in Teacher Education (Secondary Concentration) 64

Students should consult an academic advisor or the program director on selecting electives as choices may be influenced by teacher licensure requirements for different secondary content areas.

APPROVED ELECTIVES

BIOLOGICAL/PHYSICAL SCIENCE ELECTIVES (MUST BE FROM THREE DIFFERENT SUBJECT AREAS)

ASTR 1110/1192, BIO 1010/1092, BIO 1110/1192
Or BIO 1310/1392 (Recommended for Physical Education only)
(ELECTIVES BELOW HIGHLY RECOMMENDED FOR THOSE INTERESTED IN TEACHING MATH OR SCIENCE)
BIO 1510/1592; CHEM 1410/1492or 1710/1792; PHYS 1510/1592 or 1710/1792

SOCIAL/BEHAVIORAL SCIENCE ELECTIVES (SELECT FROM AT LEAST TWO DIFFERENT SUBJECT AREAS)

ANTH 1101, 1130, ECON 2200, 2201, PSCI 1110, 2200, 2220, 2240, PSY 1105, SOC 1101

See page 57 for information on course categories.

TECHNOLOGY MANAGEMENT AND TRAINING

School of Business & Information Technology

CONTACT INFORMATION

Program information is available from the School of Business & Information Technology Office at (505) 224-3811 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/bit/programs

■ Associate of Arts Degree in Technology Management and Training

PROGRAM DESCRIPTION

The Technology Management and Training associate of arts degree is designed to transfer to the University of New Mexico (UNM) College of Education Organizational Learning and Instructional Technologies (OLIT) program. This program allows the student with an associate of applied science degree that contains at least 30 technical hours (exclusive of IT 1010 or its equivalent and BA 1101) to take the required credit hours of arts and sciences coursework to earn the Technology Management and Training associate of arts degree at CNM. The CNM Associate of Applied Science (AAS) degree earned by a student must be within the last 10 years, or the student will be required to demonstrate continued proficiency in the technical components. The credit hours earned in this degree are designed to transfer to the UNM College of Education OLIT program to earn a Bachelor of Science in Education in Technology and Training. The UNM College of Education program currently requires:

1. 3.0 GPA in the technical discipline and
2. C grade or better in all arts and sciences coursework

Courses taken with the credit/no credit option, transfer credits and non-traditional credits accepted by CNM toward this degree may not be accepted by the UNM College of Education.

SPECIAL REQUIREMENTS

- Since some New Mexico schools classify ANTH 1150 and GEOG 1101 as physical sciences, CNM Technology Management and Training students may use either of these courses to meet the Biology/Physical Science requirement.
- Departmental approval is required to declare Technology Management and Training as a first major.
- An associate degree in a technical discipline, with at least 30 technical hours, excluding IT 1010 (or its equivalent) and BA 1101, must be received at least one semester prior to applying for the Technology Management and Training associate of arts degree.
- Overall GPA of 2.5.

CAREER AND EDUCATIONAL OPPORTUNITIES

This Technology Management and Training Associate of Arts degree is designed to transfer to the UNM College of Education OLIT program to prepare students to earn a bachelor of science degree in Education in Technology and Training. The bachelor of science in Education in Technology and Training enables students with a technical major to develop the skills necessary for employment as a technical trainer or training developer in the business, government or corporate sector.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 1310 Intermediate Algebra or College Level Math score of	60
RDG 0950 Reading and Critical Thinking	80

ENTRY LEVEL COURSE OR PROGRAM PREREQUISITE

Associate degree with at least 30 technical credits (not including IT 1010 or its equivalent, or BA 1101)

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
ENG 1101 College Writing	3
MATH 1315 College Algebra or higher	3
ECON 2200 Macroeconomics	3
Or	
ECON 2201 Microeconomics	
SOC 1101 Introduction to Sociology	3
IT 1010 Introduction to Computers	3
TERM 2	
ENG 1102 Analytic and Argumentative Writing	3
MATH (higher than 1315)	3
*BIOLOGICAL/PHYSICAL SCIENCE W/LAB	4
Or	
ANTH 1150 Evolutionary Anthropology w/lab	
Or	
GEOG 1101 Physical Geography w/lab	
PSY 1105 Introduction to Psychology	3

See page 57 for information on course categories.

TERM 3

*FOREIGN LANGUAGE 3
*BIOLOGICAL/PHYSICAL SCIENCE 3
Or
ANTH 1150 Evolutionary Anthropology
Or
GEOG 1101 Physical Geography
COMM 1130 Public Speaking 3
Or
COMM 2221 Interpersonal Communication Studies
*HUMANITIES ELECTIVE 3

TERM 4

*HUMANITIES ELECTIVE 3
ENG 2219 Technical Writing 3
Or
PHIL 1156 Logic and Critical Thinking
BA 1101 Introduction to Business 3
*FINE ARTS ELECTIVE 3

Associate of Arts in Technology Management and Training 82

(Including the 30 technical credits required from associate's degree)

**** See page 57 for information on course categories.***

TRANSPORTATION TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

- **Associate of Applied Science Degree in Transportation Technology (Concentrations in Automotive Technology or Diesel Equipment Technology)**
- **Certificate of Completion in Automotive Service Fundamentals**
- **Certificate of Completion in Automotive Technology**
- **Certificate of Completion in Diesel Equipment Technology**

PROGRAM DESCRIPTION

Students who earn certificates in their chosen concentration are encouraged to earn an Associate's Degree in Transportation Technology by taking academic and related trades classes, including welding, OSHA compliance, environmental protection, communication, English and physical science. Upon completion of the associate's degree program, graduates will be eligible for entry level employment at automotive or medium/heavy duty equipment dealerships and independent repair facilities. Graduates have the potential to work in management and other related areas of service operations.

SPECIAL REQUIREMENTS

Students are required to purchase textbooks, tools and personal safety equipment. One must not be allergic to fuels, oils, and chemicals used in industry. Most employers require a valid driver's license and a good driving record.

CAREER AND EDUCATIONAL OPPORTUNITIES

Career opportunities exist in government, independent repair facilities and dealerships for all aspects of the industry including line technician, field service technician, service writer, service manager, warranty and parts specialist and overhaul specialist. The national shortage of technicians in the both the automotive and the diesel truck and heavy equipment fields ensures plentiful employment opportunities with excellent pay and benefits.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
CERTIFICATES	
RDG 0750 Reading Improvement	69
MATH 0750 Basic College Mathematics or Arithmetic score of	57
DEGREE	
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving or Elementary Algebra score of	72
RDG 0950 Reading and Critical Thinking	80

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

AUTOMOTIVE TECHNOLOGY

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
AUTC 1110 Introduction to Automotive Systems	4
AUTC 1120 Brake Systems	4
AUTC 1130 Suspension and Alignment	4
AUTC 1140 Automotive Electrical	4

Certificate in Automotive Service Fundamentals 16

TERM 2	
AUTC 1210 Manual Transmission	4
AUTC 1220 Engine Repair	4
AUTC 1230 Automatic Transmissions	4
AUTC 1240 Automotive Electronics	4
TERM 3	
AUTC 2120 Engine Performance I	4
AUTC 2130 Engine Performance II	4
AUTC 2110 Air Conditioning and Heating	4

Certificate in Automotive Technology 44

ESH 2016 Occupational Safety I	1
ESH 2017 Occupational Safety II	1
ESH 2018 Occupational Safety III	1

**** See page 57 for information on course categories.***

TERM 4

ESH 1809 Workplace Adult First Aid and CPR 1
ESH 2899 Environmental Safety and Health Capstone Course 2
WELD Elective 3
ENG 1101 College Writing 3
IT 1010 Introduction to Computers 3

TERM 5

MATH 1210 or higher 3-4
COMM 1130 or higher 3
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCE ELECTIVE 3
PHYS 1010 or higher 3
AUTC 2999 Capstone 1

Associate of Applied Science in Transportation Technology (Concentration in Automotive Technology) 72-73

DIESEL EQUIPMENT TECHNOLOGY

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS

TERM 1 (FALL ONLY)

DETC 1110 Introduction to Diesel Technology 4
DETC 1120 Heavy Duty Brake Systems 4
DETC 1130 Heavy Duty Suspension and Steering 4
DETC 1150 Diesel Equipment Electrical Systems 4

TERM 2

DETC 1210 Heavy Duty Engine Repair 4
DETC 1220 Automatic Transmissions and Hydraulics 4
DETC 1230 Medium/Heavy Duty Air Conditioning and Heating 3
DETC 1240 Diesel Equipment Electronic Systems 4

TERM 3

DETC 1140 Manual Shift Transmissions and Axles 4
DETC 2110 Preventative Maintenance 4
DETC 2120 Diesel Engine Performance 4

Certificate in Diesel Equipment Technology 43

ESH 2016 Occupational Safety I 1
ESH 2017 Occupational Safety II 1
ESH 2018 Occupational Safety III 1

TERM 4

ESH 1809 Workplace Adult First Aid and CPR 1
ESH 2899 Environmental Safety and Health Capstone Course 2
WELD Elective 3
ENG 1101 College Writing 3
IT 1010 Introduction to Computers 3

TERM 5

MATH 1210 or higher 3-4
COMM 1130 or higher 3
*HUMANITIES OR SOCIAL/BEHAVIORAL SCIENCE ELECTIVE 3
PHYS 1010 or higher 3
DETC 2999 Capstone 1

Associate of Applied Science in Transportation Technology (Concentration in Diesel Equipment Technology) 71-72

*** See page 57 for information on course categories.***

TRUCK DRIVING

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

- **Certificate of Achievement in Truck Driving**
- **Certificate of Achievement in Class B CDL**

PROGRAM DESCRIPTION

Provides students basic instruction required to earn a either a Class A or Class B Commercial Driver's License (CDL) to become a professional commercial truck driver.

Students learn how to operate a tractor-trailer or Class B truck safely and efficiently through classroom, range, and over-the-road environments and through full-time and part-time course work. The Class A program is certified by the Professional Truck Driver Institute (PTDI). Students who successfully complete the Class A program will receive both a CNM Truck Driving certificate and a PTDI certificate. Class B students will receive a CNM Certificate of Achievement. This program meets federal regulation requirements for entry-level drivers.

SPECIAL REQUIREMENTS

- Be at least 18 years old
- Have a valid New Mexico driver's license
- Have maintained a valid driver's license for the previous three (3) years (some exceptions allowed, contact department)
- Provide original birth certificate (or proof of citizenship)
- Provide original social security card
- Provide a certified copy of driving record for the past three (3) years
- Have a Department of Transportation physical at a qualified testing facility
- Obtain pre-qualification testing for controlled substances use
- Not have been convicted of or forfeited bond for more than four (4) moving violations in the past three years
- Not have more than one at-fault, preventable accident in the past three (3) years
- Not have been convicted of or forfeited bond for reckless driving
- Not have any DWI/DUI convictions within the past five (5) years
- Not have more than one (1) DWI/DUI conviction in the past ten (10) years
- Not have more than two (2) DWI/DUI convictions within a lifetime
- Must be a U.S. citizen or Lawful Permanent Resident of the United States of America
- Students are subject to ALL Federal Motor Carriers Safety Regulations drug and alcohol testing rules

CAREER AND EDUCATIONAL OPPORTUNITIES

Jobs are available with various types of trucking companies, including local delivery, in-state routes and over-the road (regional and 48 states) opportunities.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

Note: Lab Courses are held at off-campus locations. Please see the Schedule of Classes.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
Math 0550 Basic Math or Arithmetic score	31

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
TRDR 1101 Basic Operational Theory	7
TRDR 1292 Basic Operational Lab	4
TRDR 1392 Advanced Operational Lab	2

Certificate in Truck Driving 13

TERM 1

TRDR 1105 Class B Operational Theory	6
TRDR 1492 Class B Basic Operational Lab	2
TRDR 1592 Class B Advanced Operational Lab	1

Certificate in Class B CDL 9

**** See page 57 for information on course categories.***

VETERINARY TECHNOLOGY

School of Health, Wellness & Public Safety

CONTACT INFORMATION

Program information is available from the School of Health, Wellness & Public Safety office at (505) 224-4111 or Academic Advisement and Career Development (505) 224-4321 or from Program Director/Chair at (505) 224-5043.

cnm.edu/depts/hwps/progs

■ **Associate of Applied Science Degree in Veterinary Technology**

PROGRAM DESCRIPTION

Veterinary technology is a career in which skilled veterinary technicians participate in the exciting and challenging field of veterinary medicine working with animals and their owners under the supervision of veterinarians. The five-term Associate of Applied Science degree program provides didactic, lab and clinical experiences necessary for employment in the field of veterinary care and technology. Upon completion of the program, the graduate is ready to be an integral part of the veterinary health care team providing care and support to animals. Graduates are eligible to sit for the Veterinary Technician National Examination and the New Mexico Board of Veterinary Practice Act Examination. Upon passing both examinations successfully, the applicant is eligible for licensure by the New Mexico Board of Veterinary Medicine (NMBVM) as a Registered Veterinary Technician. The American Veterinary Medical Association (AVMA) Committee on Veterinary Technician Education and Activities (CVTEA) nationally accredits the Program.

SPECIAL REQUIREMENTS

Students interested in the Veterinary Technology Program must be in good physical and psychological health. A felony record may prevent the graduate from sitting for the national and state board examinations. Students with felonies should contact the NM Board of Veterinary Medicine prior to petitioning to the Program.

Health requirements: The VT program requires documentation of a recent health screening from a licensed health care provider confirming the ability to safely perform program specific activities and lift a minimum of 50 pounds. Reasonable accommodations are made for those students with disabilities. However, some disabilities may prohibit students from completing program specific competencies or gaining employment. Students with a disability that may interfere with completing program competencies, which may include providing safe patient care, are advised to contact the program director at (505) 224-5043 for more information.

Petitioning: The Petition process is subject to change. Students should plan to attend an information session to remain current. Information sessions covering the petitioning process, program requirements and career opportunities are scheduled regularly. Dates and times for Program Information Sessions can be obtained by calling the School of Health, Wellness & Public Safety, (505) 224-4111 or on the CNM website: cnm.edu > Areas of Study > Health, Wellness & Public Safety > Programs of Study > Veterinary Technology.

The program begins in fall of each year. Petitions are accepted in May and June. In order to petition a student must:

- Complete and pass the Required Program Courses with a grade of "C" or better (present a CNM transcript)
- Achieve a minimum score of 85 on the HWPS Basic Math test within 12 months prior to petitioning
- Present proof of a GPA of 2.5 or greater in the Required Courses
- Documentation of basic computer literacy is strongly recommended (e-mail, computer course on transcript, etc.).

Consideration is given to prospective students in the following order:

1. The number of prerequisite science and mathematics courses completed with a GPA of 2.5 or higher
2. The number of non-science courses completed with a GPA of 2.5 or higher
3. Date of declaration of major as Veterinary Technology

Fees: Students are required to provide their own health insurance and transportation to classes, labs and clinical sites. The various program fees are published in the *Schedule of Classes*.

CAREER AND EDUCATIONAL OPPORTUNITIES

Employment opportunities for Registered Veterinary Technicians in New Mexico are excellent. RVTs work in private clinical veterinary practices, animal control and animal humane centers, zoos and wildlife facilities, diagnostic laboratories, biomedical facilities, federal positions, and institutions of higher learning as well as in other areas involving animal care. In some jobs, the academic training allows for rapid advancement into management positions with commensurate higher pay.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

SPECIAL NOTES

Students should have reliable transportation while in the program. Clinical assignments are given to students requiring travel throughout the metropolitan area.

IT 0850 Basic Keyboarding/Computer Skills is recommended for program success.

Optional Courses: *These courses do not fulfill graduation requirements and may not be eligible for financial aid.*

VT1192 Supplemental Lab for Veterinary Technicians (program students only).....1
VT2096 Preparation for Professional Success.....Credit/No Credit

**** See page 57 for information on course categories.***

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
ENG 0950 Essay Writing	85
MATH 0930 Algebraic Problem Solving I or Elementary Algebra score of	81
RDG 0950 Reading and Critical Thinking	80

Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

REQUIRED PROGRAM COURSES

COURSE	CREDIT HOURS
CHEM 1410/1492 Introduction to Chemistry Laboratory or CHEM1710/1792	4
BIO 1410/1492 Biology for Health Sciences/Laboratory	4
MATH 1210 Methods of Problem Solving or higher (except MATH 2110 and 2096)	3-4
ENG 1101 Essay Writing	3
Or	
ENG1102 Analytical Writing	
PSYCH 1105 Introduction to Psychology	3

REQUIRED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1 (PROGRAM BEGINS IN FALL ONLY)	
VT1004 Veterinary Medical Terminology	1
VT1006 Veterinary Office Skills	1
VT1008 Applied Mathematics for Veterinary Technicians	1
VT1010 Introduction to Veterinary Technology	2
VT1012 Introduction to Animal Care Lab	2
VT1070 Animal Comparative Anatomy and Physiology I	3
TERM 2 (SPRING)	
VT1210 Animal Comparative Anatomy and Physiology II	3
VT1272 Surgical Technology for Veterinary Technicians	2
VT1274 Radiology for Veterinary Technicians	2
VT1292 Veterinary Office Skills Laboratory	1
TERM 3 (SUMMER)	
VT2010 Clinical Pathology for Veterinary Technicians I	4
VT2015 Non-Infectious and Infectious Diseases for Veterinary Technicians	3
VT2180 Veterinary Technology Clinical I	4
TERM 4 (FALL)	
VT2610 Clinical Pathology for Veterinary Technicians II	4
VT2672 Anesthesiology for Veterinary Technicians	3
VT2674 Applied Therapeutics and Care for Veterinary Technicians I	3
VT2690 Veterinary Technology Clinical II	4
TERM 5 (SPRING)	
VT2803 Pharmacology for Veterinary Technicians	3
VT2810 Veterinary Technology Clinical III	5
VT2884 Applied Therapeutics II (Avian, Laboratory, Exotic and Large Animals)	4
VT2892 Dentistry Lab for Veterinary Technicians	1

Associate of Applied Science in Veterinary Technology 73-74

**** See page 57 for information on course categories.***

WELDING TECHNOLOGY

School of Applied Technologies

CONTACT INFORMATION

Program information is available from the School of Applied Technologies Office at (505) 224-3711 or from Academic Advisement and Career Development at (505) 224-4321.

cnm.edu/depts/at/index.php

■ **Certificate of Completion in Welding**

PROGRAM DESCRIPTION

Students will study hands-on welding technology, including blueprint reading, mathematics, metallurgy and other general course work. Classes include classroom and lab time. Upon completion of this program, graduates will be eligible for entry level employment in a variety of industrial careers.

SPECIAL REQUIREMENTS

Students are expected to purchase textbooks, tools and personal safety equipment.

CAREER AND EDUCATIONAL OPPORTUNITIES

One-hundred percent of our graduating class obtained employment in the welding industry. Jobs are available in the construction, manufacturing and energy fields.

Exit competencies (see page 3) for this program of study are available at cnm.edu/exitcomp.

For the graduation policy refer to page 46, cnm.edu or the Students tab in my CNM.

COURSE PREREQUISITE(S)

COURSE	ACCUPLACER SCORE OR EQUIV.
MATH 0750 Basic College Math or Arithmetic score of	57
RDG 0750 Reading Improvement	69

Students should see an academic advisor to customize their educational plans. Students must meet prerequisites by placement scores or specific course work. Please see Course Descriptions for prerequisite(s) information.

See page 12 for Accuplacer score equivalencies.

RECOMMENDED SEQUENCE OF COURSES

COURSE	CREDIT HOURS
TERM 1	
WELD 1001 Welding Math I	2
WELD 1005 Welding Blueprint Reading I	2
WELD 1092 Oxyacetylene Welding and Cutting	2
WELD 1192 Introduction to SMAW	2
WELD 1020 Introduction to Metallurgy	2
WELD 1292 Advanced SMAW	2
WELD 1492 Introduction to GMAW and Fabrication Lab	2
TERM 2	
WELD 1025 Welding Blueprint Reading II	2
WELD 1030 Welding Math II	2
WELD 1592 Introduction to GTAW and Fabrication Lab	2
WELD 2001 Advanced Blueprint Reading	2
WELD 2192 Pipe Layout and Welding	2
WELD 1692 Advanced GMAW and Fabrication	2
WELD 2292 Advanced GTAW and Fabrication	2
TERM 3	
WELD 1392 Introduction to SMAW Qualifications and Fabrication	2
WELD 2092 Qualifications for GMAW	2
WELD 2492 Project and Fabrication Lab	2
WELD 2392 Qualifications for GTAW	2
MATT 1060 Machine Tool Technology Skills	3
Certificate in Welding	**39**

**** See page 57 for information on course categories.***

COURSE DESCRIPTIONS

COURSE DESCRIPTIONS (alphabetical by subject code)

COURSE DESCRIPTIONS

HOW TO READ A COURSE DESCRIPTION

1 AA 1002 – Keyboard Applications **2 3**

3 *(Prerequisite: AA 101)*

4 Requires production of business letters, reports and tables and continued development of speed and accuracy. A minimum average speed of 35 wpm on three five-minute timings is required to pass this course. (30 theory and 45 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

5 **6**

1 Subject Code and Number: The subject codes indicates the course discipline. Generally, the higher the number the more advanced the content.

2 Credit Hours: Credits earned for successfully completing the course.

3 Prerequisites:

- A prerequisite must be completed before a student enrolls in the course (If an Accuplacer test score applies – see page 12 for details).
- A corequisite must be taken in combination with the course.
- A "recommended" pre requisite or corequisite is strongly encouraged for successful completion of the course, but is not required.

4 Course description: Details the content of the course.

5 Theory/Lab Hours: If a course has both theory and lab hours or just lab hours, this note will include the total hours spent in each area (theory/lab) per term.

6 Special notes: Notes concerning the course such as additional course or lab fees.

Course Subject Code/Course Number - Course Name — Credit Hours

AA – Administrative Assistant Courses School of Business & Information Technology

This program is being discontinued and will not accept new students. Please refer to the Office Technology Program.

(See OTEC Courses on page 275)

ACCT – Accounting Courses School of Adult & General Education

ACCT 0196, 0296…0996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ACCT 0850 – Introduction to Accounting **3**

Previously ACCT 100

Provides students with information about basic accounting cycle. Covers additional topics, such as payroll and taxes, as time permits. Helps students prepare for next-level accounting-related courses. (45 theory hours + 15 lab hours per term)

ACCT – Accounting Courses School of Business & Information Technology

ACCT 1096, 1196...1996 – Topics **1–6**

(all courses ending in 96 are topics courses)

Previously ACCT 296 (Prerequisite: ACCT 1111 + ACCT 1112 + ACCT 1210; or department approval)

Explores current topics in accounting.

ACCT 1109 – Business Math **3**

Previously ACCT 111 (Recommended prerequisite: MATH 0930 or appropriate placement scores, see page 12. This course is a prerequisite for ACCT 1112 and a pre- or corequisite for ACCT 1110)

Applies basic arithmetic operations to business applications and accounting.

Course Subject Code/Course Number - Course Name — Credit Hours

ACCT 1110 – Accounting I **6**

Previously ACCT 101 (Recommended prerequisite: MATH 0930 or appropriate placement scores, see page 12; RDG 0750 or appropriate placement scores, see page 12. Pre- or corequisite: ACCT 1109 or MATH 1315)

This course is offered via distance learning only (see page 33). Students analyze and record business transactions, implement accrual basis accounting and prepare basic financial statements. In addition, students apply generally accepted accounting principles to the elements of the balance sheet. This class is fast-paced (double the normal pace of ACCT 1111 and 1112). ACCT 1111 plus 1112 are equivalent to this course.

ACCT 1111 – Accounting IA **3**

Previously ACCT 101A (Recommended prerequisite: MATH 0930 or appropriate placement scores, see page 12, RDG 0750 or appropriate placement scores, see page 12) Note: Students going on to ACCT 1112 should take ACCT 1109 concurrently with ACCT 1111.

Students analyze and record business transactions, implement accrual basis accounting and prepare basic financial statements. ACCT 1111 plus 1112 are equivalent to ACCT 1110.

ACCT 1112 – Accounting IB **3**

Previously ACCT 101B (Prerequisite: ACCT 1111+ ACCT 1109; or ACCT 1111+ MATH 1315)

Applies basic generally accepted accounting principles to the elements of the balance sheet. ACCT 1111 plus 1112 are equivalent to ACCT 1110.

ACCT 1120 – Payroll Accounting **3**

Previously ACCT 170 (Recommended prerequisite: ACCT 1111 or ACCT 1110)

Covers payroll accounting procedures and controls, tax and employment laws and tax reports that form the core of payroll responsibilities.

ACCT 1140 – Accounting Applications 3

Previously ACCT 180 (Prerequisite: ACCT 1109 + ACCT 1112 + IT 1010; or ACCT 1109 + ACCT 1110+ IT 1010; or department approval)

Simulates the complete accounting process using practice sets to expand skills in the performance of accounting functions.

ACCT 1210 – Accounting II 3

Previously ACCT 102 (Prerequisite: ACCT 1109 + ACCT 1110 + IT 1010; or ACCT 1109 + ACCT1111 + IT 1010; or MATH 1315 + ACCT 1110 + IT 1010; or MATH 1315 + ACCT 1111 + IT 1010)

Presents utilization of accounting information for decision making by management in planning and controlling business activities. ACCT 1210 and 1140 from this catalog are equivalent to ACCT 102 from 1999 – 2000 and prior catalogs.

ACCT 1301 – Volunteer Tax Preparation 2

Previously ACCT 150

Introduces basic tax return preparation issues and the software to do basic tax returns for low-income and elderly taxpayers. Offered fall and spring terms.

ACCT 1303 – Volunteer Tax Review 1

Previously ACCT 152 (Prerequisite: ACCT 1301 + ACCT 1398)

Reviews changes in the tax code and tax software to prepare individual tax returns for low-income and elderly taxpayers. This course is designed for returning volunteers. Students must volunteer for a maximum of thirty hours and pass the certification examination.

ACCT 1398 – Volunteer Tax Internship 1

Previously ACCT 151 (Pre- or corequisite: ACCT 1301)

Students apply current tax code to prepare individual tax returns for low-income and elderly taxpayers. Thirty hours of volunteer tax return preparation work during the spring term at one of CNM's Tax Help locations is required along with passing a certification examination. Offered spring term.

ACCT 1410 – QuickBooks Complete 3

Previously ACCT 160 (Recommended prerequisite: ACCT 1111)

This course is offered via distance learning only (see page 33). Covers QuickBooks software for small business. Includes transaction recording for service and merchandising businesses, bank reconciliation, payroll and end-of-period procedures, financial reporting and conversion of business records into QuickBooks. ACCT 1411/1412/1413 are equivalent to this course. (30 theory + 45 lab hours per term)

ACCT 1411 – Beginning QuickBooks 1

Previously ACCT 157 (Recommended prerequisite: ACCT 1111)

Covers QuickBooks general ledger software for small businesses. The student will record transactions for a service-oriented business and prepare bank reconciliations and end-of-period financial statements. (5 weeks; 10 theory + 15 lab hours per term)

ACCT 1412 – Intermediate QuickBooks 1

Previously ACCT 158 (Pre- or corequisite: ACCT 1411 or department approval)

Expands QuickBooks knowledge to merchandise-oriented businesses. (5 weeks; 10 theory + 15 lab hours per term)

ACCT 1413 – Advanced QuickBooks 1

Previously ACCT 159 (Pre- or corequisite: ACCT 1412 or department approval)

Examines advanced topics including payroll transactions and reporting and conversion of existing manual records to QuickBooks. (5 weeks; 10 theory + 15 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

ACCT 2095 – Cooperative Education 4

Previously ACCT 299 (Prerequisite: ACCT 1140 + department approval)

Provides students the opportunity to work a minimum of 150 hours in a new job experience in accounting or training-related supervised work. Student trainees are paid by the cooperating firm and supervised jointly by CNM and the employer.

ACCT 2096, 2196...2996 – Special Topics 1-6

(all courses ending in 96 are topics courses)

Previously ACCT 296 (Prerequisite: ACCT 1111 + ACCT 1112 + ACCT 1210; or department approval)

Explores current topics in accounting.

ACCT 2097 – Independent Study Variable

Previously ACCT 297 (Prerequisite: department approval)

Requires the student and instructor to define a specific problem in the area of the student's interest and directly related to the program. Student develops and executes a solution applying analytical techniques and critical thinking to the problem. An oral presentation may be required.

ACCT 2098 – Internship 4

Previously ACCT 298 (Prerequisite: ACCT 1140 + department approval)

Provides students the opportunity to work a minimum of 150 hours in a new job experience in accounting or training-related supervised workstations. Students are not paid for their work but are supervised jointly by CNM and the company.

ACCT 2101 – Intermediate Accounting IA 3

Previously ACCT 201A (Prerequisite: ACCT 1140 or department approval)

Presents accounting theory, concepts, practical application and use of accounting facts and procedures in business contexts. Emphasis is on the rationale behind business transactions, the development of professional judgment and critical-thinking skills in regard to assets.

ACCT 2102 – Intermediate Accounting IB 3

Previously ACCT 201B (Prerequisite: ACCT 2101 or department approval)

Continues ACCT 2101 and completes the focus on the asset side of the balance sheet and starts the study of liabilities and stockholders' equity issues.

ACCT 2103 – Intermediate Accounting II 3

Previously ACCT 202 (Pre- or corequisite: ACCT 2102 or department approval)

Completes the accounting theory framework started in ACCT 2101 and ACCT 2102 with the remaining liabilities, stockholder equity issues and special topics.

ACCT 2210 – Cost Accounting 3

Previously ACCT 260 (Prerequisite: ACCT 1210 or department approval)

Covers job order and process costing systems for construction and manufacturing.

ACCT 2220 – Managerial Accounting 3

Previously ACCT 280 (Prerequisite: ACCT 1210 or department approval)

Expands the student's ability to use and interpret accounting information for decision making by management in planning and controlling business activities.

ACCT 2340 – Tax Accounting I 3

Previously ACCT 240 (Prerequisite: ACCT 1110; or ACCT 1111; or ACCT 1301 + ACCT 1398; or department approval)

Covers fundamental characteristics of individual federal income taxes.

ACCT 2341 – Tax Accounting II 3
Previously ACCT 241 (Prerequisite: ACCT 2340 or department approval)

Covers income tax aspects of corporations, partnerships, sub-chapter S corporations, fiduciaries and introduces some advanced concepts related to individual income taxes, tax planning and estate and gift taxation.

ACCT 2350 – Enrolled Agent Review I 3
Previously ACCT 242A (Pre- or corequisite: ACCT 1301 + ACCT 1302 + ACCT 2340; or department approval)

Reviews the fundamental characteristics of individual taxation and related IRS rules and regulations to assist in the preparation for the IRS Enrolled Agent exam.

ACCT 2351 – Enrolled Agent Review II 3
Previously ACCT 242B (Pre- or corequisite: ACCT 2341 + ACCT 2350; or department approval)

Reviews the fundamental characteristics of corporation, partnership, fiduciary, estate/gift and trust taxation and related IRS rules and regulations to assist in the preparation for the IRS Enrolled Agent exam.

ACCT 2410 – Electronic Spreadsheets 3
Previously ACCT 254 (Prerequisite: IT 1010 + ACCT 1111 + ACCT 1112; or IT 1010 + ACCT 1110; or department approval. Recommended prerequisite: ACCT 1210)

Applies electronic spreadsheets to accounting and business problems. (30 theory + 45 lab hours per term)

ACCT 2420 – Computerized Accounting 3
Previously ACCT 255 (Prerequisite: ACCT 1140 or department approval)

Employs integrated accounting software for payroll, inventory control, accounts payable, accounts receivable and general ledger functions. Course reviews the accounting cycle both manually and computerized. (30 theory + 45 lab hours per term)

ACCT 2510 – Governmental Accounting 3
Previously ACCT 270 (Prerequisite: ACCT 1140 or ACCT 2101 or department approval)

Examines fund accounting for governmental entities.

ACCT 2520 – Auditing 3
Previously ACCT 271 (Prerequisite: ACCT 1210 or department approval. Recommended prerequisite: ACCT 2101)

Surveys auditing concepts that include audit standards, reports, professional ethics, legal liability, evidence accumulation, audit planning, internal control, transaction cycles, other engagements and operational auditing.

ACHR – Air Conditioning, Heating & Refrigeration Courses
School of Applied Technologies

ACHR 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ACHR 1105 – Refrigeration Fundamentals 2
Previously ACHR 131 (Prerequisite: RDG 0750 + MATH 0550; or appropriate placement scores, see page 12; or department approval)

Introduces fundamentals of refrigeration, including components, refrigerants, accessories and hands-on competencies. (15 theory + 37.5 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

Course Subject Code/Course Number – Course Name Credit Hours

ACHR 1110 – Basic Electricity 2
Previously ACHR 132 (Prerequisite: RDG 0750 + MATH 0550; or appropriate placement scores, see page 12; or department approval)

Presents principles of electricity, measurements, safety, wiring procedures, schematics, components of basic circuits and principles and practices in electricity. (15 theory + 37.5 lab hours per term)

ACHR 1115 – Refrigerant Management 2
Previously ACHR 133 (Prerequisite: RDG 0750 + MATH 0550; or appropriate placement scores, see page 12; or department approval)

Stresses accepted practices and procedures of refrigerant handling, containment, safety, leak detection, evacuation, recovery and charging systems. Students must take and pass the EPA Universal CFC Certification exam. (15 theory + 37.5 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

ACHR 1120 – Motors and Controls 2
Previously ACHR 134 (Pre- or corequisite: ACHR 1110 or department approval)

Covers primary and control circuits in various applications, troubleshooting and components. Emphasizes attention to motors and starting devices. (15 theory + 37.5 lab hours per term)

ACHR 1125 – Refrigeration Applications 2
Previously ACHR 135 (Pre- or corequisite: ACHR 1105 + ACHR 1110 + ACHR 1115 + ACHR 1120; or department approval)

Covers system design, accessories, performance characteristics and problem diagnosis. (15 theory + 37.5 lab hours per term)

ACHR 1130 – Code and Safety Requirements I 1
Previously ACHR 137 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12; or department approval)

Investigates code requirements and safety practices related to refrigeration. Code and safety searches are an integral part of the course.

ACHR 1135 – Commercial Refrigeration 2
Previously ACHR 155 (Pre- or corequisite: ACHR 1105 + ACHR 1110 + ACHR 1115 + ACHR 1120; or department approval)

Covers installation, service and maintenance of reach-in and walk-in refrigeration systems. (15 theory + 37.5 lab hours per term)

ACHR 1205 – Air Conditioning 2
Previously ACHR 151 (Prerequisite: ACHR 1115 or Universal EPA certificate or department approval)

Covers installation, service and maintenance of air conditioning and heat pump systems. (15 theory + 37.5 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

ACHR 1210 – Air Conditioning Control 2
Previously ACHR 152 (Prerequisite: ACHR 1110 + ACHR1120; or department approval)

Covers installation, service and maintenance of air conditioning and heat pump systems controls. (15 theory + 37.5 lab hours per term)

ACHR 1215 – System Design 3
Previously ACHR 156

Examines air properties, air movement, heat load calculations and water as a secondary refrigerant. (30 theory + 37.5 lab hours per term)

ACHR 1220 – Installation and Retrofit of Heat/Cooling Systems 2
Previously ACHR 159

Covers the installation of new and retrofitting of existing heating and/or cooling units to duct systems. Test and balancing procedures are introduced. (15 theory + 37.5 lab hours per term)

ACHR 1225 – Heating Systems 2

Previously ACHR 157 (Prerequisite: RDG 0750 + MATH 0550; or appropriate placement scores, see page 12; or department approval)

Emphasizes gas, oil and electric heating systems used for residential and/or light commercial heating systems. Furnaces and package systems are covered. Alternative heating sources are discussed. (15 theory + 37.5 lab hours per term)

ACHR 1230– Heating Control Systems 2

Previously ACHR 158 (Prerequisite: ACHR 1110 + ACHR 1120; or department approval)

Emphasizes electrical and electronic control troubleshooting, service, maintenance and repair/replacement of residential and/or light commercial heating systems. (15 theory 37.5 lab hours per term)

ACHR 1306 – Advanced Hydronics 2

(Prerequisite: ACHR 1205+1210 or department approval)

Covers the types of hydronic systems, pumps and valves used in the industry; the sizing, selection and internal construction, disassembling, assembling and measurement of mechanical hydronic systems. *(Note: ACHR 1305 and 1310 were combined to create this course)* (15 theory + 37.5 lab hours a term) **$ Additional fees published in the *Schedule of Classes*.**

ACHR 1315 – Hot Water and Steam Generation Systems 2

Previously ACHR 212 (Pre- or corequisite: ACHR 1306 or department approval)

Covers types, design, construction of typical systems, sizing and controls of units. (15 theory + 37.5 lab hours per term)

ACHR 1320 – Controls I 2

Previously ACHR 213 (Pre- or corequisite: ACHR 1306 or department approval)

Stresses pneumatic, electronic and electric control systems with computer interfacing. (15 theory + 37.5 lab hours per term)

ACHR 1325 – Chilled Water Systems 2

Previously ACHR 214 (Pre- or corequisite: AC HR 1205 + 1210 + 1306; or department approval)

Emphasizes commercial and industrial chilled water systems. (15 theory + 37.5 lab hours per term)

ACHR 1335 – Controls II 2

Previously ACHR 215 (Pre- or corequisite: ACHR 1320 or department approval)

Covers advanced building controls using interfaced operating monitor equipment. (15 theory + 37.5 lab hours per term)

ACHR 1340 – Code and Safety Requirements II 1

Previously ACHR 216 (Prerequisite: ACHR 1130 or department approval)

Investigates code requirements and safety practices related to refrigeration. Code and safety searches are an integral part of this course.

ACHR 1345 – Controls III 2

(Pre- or corequisite: ACHR 1306 + 1315 + 1320 + 1325 + 1335; or department approval)

Covers the operations and configurations of Building Automated Controls (BACs) for Heating, Ventilating, Air Conditioning and Refrigeration (HVAC/R) Energy Management. During the course students will apply theory, knowledge and techniques to actual projects using computer based BACs. (15 theory + 37.5 lab hours per term)

ACHR 2096, 2196...2996 – Special Topics 1–6
(all courses ending in 96 are topics courses)

Previously ACHR 296

Provides an in-depth study of problems and advanced techniques.

ACHR 2297 – Independent Study Variable

Previously ACHR 297 (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

Course Subject Code/Course Number – Course Name Credit Hours

ACHR 2999 – ACHR Capstone Course 1

Previously ACHR 295 (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. (Taken during student's last term).

AFAS – Aerospace Studies Courses School of Communication, Humanities & Social Sciences

Students may register at CNM for the University of New Mexico Aerospace Studies. Uniforms and textbooks are provided. Because these courses are offered at the main campus of UNM, students should contact UNM before enrolling. For more information, contact:

Aerospace Studies Curtis E. Johanson, Lt. Col., USAF University of New Mexico AFROTC Detachment 510 Aerospace Studies Building MSC 02 1650, 1 UNM 1901 Las Lomas NE; Albuquerque, NM 87131 (505) 277-4502

Credits in Aerospace Studies may NOT be applied to any associate degree or certificate at CNM.

AFAS 1120 – The Foundation of the United States Air Force I 1

Previously AFAS 120 (Corequisite: AFAS 1192 + concurrent enrollment in leadership laboratory required for cadet status)

Introduces students to the United States Air Force (USAF), providing an overview of the basic characteristics, missions and organization of the USAF. Meets once weekly. Fall only.

AFAS 1121 – The Foundation of the United States Air Force II 1

Previously AFAS 121 (Corequisite: AFAS 1292 + concurrent enrollment in leadership laboratory required for cadet status)

Provides an introduction to the USAF, including an overview of the basic characteristics, missions and organization of the USAF. Meets once weekly. Spring only.

AFAS 1192 – Leadership Laboratory I 1

Previously AFAS 120L

Develops personal leadership and managerial abilities. Examines Air Force customs and courtesies and requires demonstration of related abilities as well as participation in drill and ceremonies. Emphasizes standards of discipline and conduct. Graded CR/NC. Enrollment in the laboratory is required with AFAS 1120 course. Fall only.

AFAS 1292 – Leadership Laboratory II 1

Previously AFAS 121L

Continues course of study begun in AFAS 1120/1192. Graded CR/NC. Enrollment in the laboratory is required with AFAS 1121 course. Spring only.

AFAS 2192 – Leadership Laboratory I 1

Previously AFAS 250L

Provides application of elements of personal leadership. Provides students an opportunity to demonstrate command and leadership abilities and knowledge of Air Force operating procedures. Graded CR/NC. Enrollment in the laboratory is required with AFAS 2250. Fall only.

AFAS 2250 – The Evolution of USAF Air and Space Power I 1

Previously AFAS 250 (Corequisite: AFAS 2192 + concurrent enrollment in leadership laboratory required for cadet status)

Introduces topics on Air Force heritage and leaders; introduces air and space power through examination of competencies and functions; and continues application of communication skills. Designed to instill an appreciation of the development and employment of air power and to motivate sophomore students to make transition from AFROTC cadet to AFROTC officer candidate. In addition, aspects of the AS 200 course begin to prepare students for field training exercises. Meets once weekly. Fall only.

AFAS 2251 – The Evolution of USAF Air and Space Power II **1**

Previously AFAS 251 (Corequisite: AFAS 2292 + concurrent enrollment in leadership laboratory required for cadet status)

Introduces topics on Air Force heritage and leaders; introduction to air and space power through examination of competencies and functions; and continued application of communication skills. Course is designed to instill an appreciation of the development and employment of air power and to motivate sophomore students to make transition from AFROTC cadet to AFROTC officer candidate. In addition, aspects of the AS 200 course begin to prepare students for field training exercises. Meets once weekly. Spring only.

AFAS 2292 – Leadership Laboratory II **1**

Previously AFAS 251L

Continues course of study begun in AFAS 2250/2192. Graded CR/NC. Enrollment in the laboratory is required with AFAS 2251. Spring only.

ANIM – Computer Animation Courses School of Applied Technologies

ANIM 1001 – Survey of Computer Animation **3**

Previously ANIM 101

Progresses from traditional cell animation through building free-hand skills, use of paint software packages, digital media applications and introduces 3-D computer animation. (30 theory + 45 lab hours per term)

ANIM 1003 – Techniques for Animation Text **3**

Previously ANIM 103 (Prerequisite: ENG 1101)

Introduces concepts required to create a story element, with emphasis on animation applications including project board techniques, structure for the short application, use of screenwriting software, information on the direct wants and needs of production houses and insights into legal aspects of the business. (30 theory + 45 lab hours per term)

ANIM 1005 – Introduction to Lightwave **3**

Previously ANIM 105 (Prerequisite: IT 1010; ARTS 1106 or ANIM 1001)

Explores various components of Lightwave 3-D animation software, modeling, texturing, lighting, animation and other bundled tools. Additional lab hours outside the regular class time are required. (30 theory + 45 lab hours per term)

ANIM 1007 – Introduction to Maya **3**

Previously ANIM 107 (Prerequisite: IT 1010; ARTS 1106 or ANIM 1001)

Uses, extensively, Maya 3-D computer animation software involving modeling, rendering, morphing, texture mapping, animation and image processing. Additional lab hours outside the regular class time are required. (30 theory + 45 lab hours per term)

ANIM 1009 – Intermediate Lightwave **3**

Previously ANIM 109 (Prerequisite: ANIM 1005)

Expands the use of Lightwave 3-D animation software to professional applications. Emphasizes insights into the work environment and employer expectations. Additional lab hours outside the regular class time are required. (30 theory + 45 lab hours per term)

ANIM 1011 – Intermediate Maya **3**

Previously ANIM 111 (Prerequisite: ANIM 1007)

Continues coverage of Maya character animation, scene design and simulation. Creates realistic characters and scenes, as well as a variety of special effects. (30 theory + 45 lab hours per term)

ANIM 1013 – Advanced Computer Animation **3**

Previously ANIM 113 (Pre- or corequisite: ANIM 1009 + ANIM 1011)

Explores advanced techniques such as inverse kinematics, constraints, character building, particle emission and dynamic forces. Emphasizes team project participation. Additional lab hours outside the regular class time are required. (30 theory + 45 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

ANIM 1050 – Game Design Theory **3**

Previously ANIM 150 (Prerequisite: IT1010 + ENG 1101)

Study the history and genres of computer games. Learn the basics of designing games and create standard game design documents while investigating standard practices of the development industry. (30 theory + 45 lab hours per term)

ANIM1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*

ANIM 2095 – Cooperative Education **3**

Previously ANIM 299 (Prerequisite: department approval)

In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position is paid.

ANIM 2096, 2196...2996 – Special Topics **1-9**

(all courses ending in 96 are topics courses)

Previously ANIM 296 (Prerequisite: department approval)

Topics vary based on the requests from the community and available software, hardware and instructors.

ANIM 2097 – Independent Study **1-9**

Previously ANIM 297 (Prerequisite: department approval)

The student and instructor define a specific problem in the area of the student's interest and directly related to the program. The student develops and executes a solution using analytical techniques appropriate to the problem. An oral presentation may be required.

ANIM 2098 – Internship **3**

Previously ANIM 298 (Prerequisite: department approval)

In cooperation with local industry, the student works for one term on a cooperative basis in an appropriate training program. The position is not paid.

ANIM 2999 – Animation Capstone **3**

(Pre- or corequisite: ANIM 1013)

Create a video demo reel. Reviews strategies for content, themes, packaging, editing, sound effects and presentation. Tailor demo reels to specific companies and areas of industry. Incorporates methods of job seeking and applications. (30 theory + 45 lab hours per term)

ANTH – Anthropology Courses School of Communication, Humanities & Social Sciences

ANTH 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ANTH 1101 – Introduction to Anthropology **3**

Previously ANTH 101 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Surveys the breadth of anthropology, including archaeology, biological anthropology, cultural anthropology and linguistic anthropology.

ANTH 1110 – Language, Culture and the Human Animal **3**

Previously ANTH 110 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Introduces concepts and practices of linguistics and anthropology. Study of the systematic nature of language: phonology, morphology, syntax, semantics and pragmatics.

ANTH 1120 – Archaeology: Discovering Our Past **3**

Previously ANTH 120 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Surveys archaeological theory and methods including data from selected archaeological sites in various geographical areas and from different time periods.

ANTH 1130 – Cultures of the World **3**

Previously ANTH 130 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Surveys basic concepts of cultural anthropology as well as cultural characteristics illustrated by a variety of existing cultures in their native environments with societal examples in cross-cultural comparisons.

ANTH 1150 – Evolutionary Anthropology **3**

Previously ANTH 150 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Introduces field of biological anthropology and concepts of organic evolution. Emphasizes fossil history of primates, prehistory of man and human genetics within a paleoecological context, modern primate behavior and its relevance to human evolution.

ANTH 2096, 2196...2996 – Special Topics **1-6**

Previously ANTH 296 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents various topics. See *Schedule of Classes*.

ANTH 2222 – Ancient Mesoamerica **3**

Previously ANTH 222 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Traces Mesoamerican archaeology from the earliest inhabitants through the Aztec period. Emphasizes cultural processes and dynamics of cultural evolution.

ANTH 2231 – North American Indians **3**

Previously ANTH 231 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents comparative ethnology of North American Indian tribes on geographic, ecologic and cultural bases and explores life of North American Indians before European influence and the diversity of cultures existing on the North American continent.

ANTH 2238 – Cultures of the Southwest **3**

Previously ANTH 238 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents basic concepts related to cultural patterns of the American Southwest from A.D. 1600 to the present and interactions of the ethnic groups that populate the Southwest.

ANTH 2255 – Southwestern Archaeology **3**

Previously ANTH 255 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents interpretations and dynamics of Southwestern archaeology from the time of the earliest inhabitants until European contact.

ANTH 2265 – The Anthropology of Drugs **3**

Previously ANTH 265 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Examines the nature and use of mind-altering drugs from a cross-cultural perspective, including study of the varieties and effects of such drugs around the world, socio-cultural contexts and functions of drugs, the social control of drugs and the political economy of world trade in both licit and illicit drugs.

ARBC – Arabic Courses School of Communication, Humanities & Social Sciences

ARBC 2096, 2196…2996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

Course Subject Code/Course Number – Course Name Credit Hours

ARDR – Architectural Drafting Courses School of Applied Technologies

ARDR 1010 – CAD Analysis I **2**

(Pre- or corequisite: CAD 1001)

Applies the usage of CAD to Architectural/Engineering drafting. (20 theory + 30 lab hours per term)

ARDR 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ARDR 1101 – Building Materials and Methods I **3**

Previously ARDR 109 (Prerequisite: ENG 0950 or appropriate placement scores, see page 12)

Studies construction systems, sub-systems and components. Emphasizes foundations, light wood frame and masonry construction. A construction hard hat is required. (30 theory + 45 lab hours per term)

ARDR 1105 – Architectural Drafting I **4**

Previously ARDR 107L (Pre- or corequisite: ARDR 1010 + ARDR 1101)

Introduces the fundamentals of architectural graphic representation as the foundation of all A/E drafting courses. Explores basic common assembly systems and introduces schedules. *Note: Students must provide their own drafting kits.* (15 theory + 135 lab hours per term)

ARDR 1110 – Architectural Mathematics **3**

Previously ARDR 108 (Prerequisite: MATH 0930 or appropriate placement scores, see page 12. Pre- or corequisite: ARDR 1010)

Covers basic concepts of problem solving, mathematics and geometry with an emphasis on architectural and engineering applications and calculator use. Students must provide a full-function scientific calculator with a ten-digit display. (30 theory + 45 lab hours per term)

ARDR 1201 – Building Materials and Methods II **3**

Previously ARDR 115 (Prerequisite: ARDR 1010 + ARDR 1101. Pre- or corequisite: ARDR 1105)

Continues ARDR 1101 with emphasis on steel, concrete, roofing, glazing and cladding systems. (30 theory + 45 lab hours per term)

ARDR 1205 – Architectural CAD II **7**

Previously ARDR 214L (Prerequisite: ARDR 1105. Pre- or corequisite: ARDR 1201 + ARDR 1220)

Continues ARDR 1105. Students produce design development and representative architectural construction drawings using standard graphic, dimensioning and notation systems. (45 theory + 180 lab hours per term)

ARDR 1220 – CAD Analysis II **3**

Previously ARDR 213 (Corequisite: ARDR 1205 or department approval)

Applies beginning to advanced CAD concepts and commands to the production and coordination of A/E construction drawings. (30 theory + 45 lab hours per term)

ARDR 1306 – Architectural CAD III **4**

(Prerequisite: ARDR 1105 or department approval)

Applies concepts and techniques of AutoCAD 3D modeling resulting in presentation drawings in AutoCAD and 3D Studio Viz. (15 theory hours + 135 lab hours per term)

ARDR 1320 – CAD Analysis III **3**

(Prerequisite: ARDR 1010 or department approval)

Introduces Building Information Modeling software used for the preparation of A/E construction and presentation drawings. (30 theory hours + 45 lab hours per term)

ARDR 1392 – Advanced Computer-Assisted Drafting 2
Previously ARDR 182L (Prerequisite: ARDR 1220)

Introduces third party CAD software-concepts and applications using Architectural Desktop. (75 lab hours per term)

ARDR 1492 – Architectural Design 2
Previously ARDR 208L (Pre- or corequisite: ARDR 1105)

Presents architectural design principles, theories, methods and process. Facilitates learning through student-designed project. (75 lab hours per term)

ARDR 1999 – ARDR Seminar I (Certificate Level) 1
(Prerequisite: department approval)

Prepares for a job search by examining the needs, expectations and trends for job procurement in the professional community. Develops documents appropriate for seeking and obtaining employment in the architectural/engineering/construction industry, such as a cover letter, resume and a cumulative portfolio. This class should be taken in the last term before completing the Certificate of Completion by all students; both those leaving with a Certificate of Completion, as well as those continuing on to obtain a degree. (45 lab hours per term)

ARDR 2096, 2196...2996 – Special Topics 1–7
(all courses ending in 96 are topics courses)
Previously ARDR 296 (Prerequisite: department approval)

Offers topics based on requests from the community and available instructors.

ARDR 2105 – Structural Systems CAD 4
(Prerequisite: ARDR 1205 + ARDR 1306. Corequisite: ARDR 2110 + ARDR 2120)

Develops standard structural engineering drawings in steel, concrete and/or wood structural systems. (15 theory hours + 135 lab hours per term)

ARDR 2110 – Structural Systems Analysis 3
Previously ARDR 2101 (Corequisite: ARDR 2105)

Introduces structural design and graphics in wood, steel and concrete and elementary beam design problems. (30 theory + 45 lab hours per term)

ARDR 2120 – Structural Systems Software Applications 2
(Prerequisite: ARDR 1220 + ARDR 1320. Corequisite: ARDR 2105 or department approval)

Introduces computer software applications, including BIM, used for the preparation of commercial structural documentation, detail drafting and 3D visualization. (15 theory hours + 60 lab hours per term)

ARDR 2192 – Site Analysis 2
Previously ARDR 113L (Prerequisite: ARDR 1105)

Examines analytical factors of site design, such as orientation and view, sound and light intrusions, contours and grading, drainage and foliage. Introduces planning aspects of site size. (75 lab hours per term)

ARDR 2205 – Mechanical/Electrical/Plumbing Systems CAD 4
(Prerequisite: ARDR 1205 + ARDR 1306. Corequisite: ARDR 2210 + ARDR 2220)

Reviews of conventional drafting methods of mechanical and electrical systems including overlaying electrical, heating, ventilation and plumbing systems on architectural views. Develop engineering drawings using engineering graphic skills. (15 theory hours + 135 lab hours per term)

ARDR 2210 – Mechanical/Electrical Systems Analysis 3
Previously ARDR 2201 (Corequisite: ARDR 2205)

Studies general theory and layout information and code requirements for non-residential systems. Includes lighting, plumbing and air conditioning. (30 theory + 45 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

ARDR 2220 – Mechanical/Electrical/Plumbing Systems Software Applications 2
(Prerequisite: ARDR 1220 + ARDR 1320. Corequisite: ARDR 2205 or department approval)

Introduces computer software applications, including BIM, used for the preparation of commercial mechanical/electrical/plumbing (MEP) documentation and 3D visualization. (15 theory hours + 60 lab hours per term)

ARDR 2295 – Cooperative Education 3
Previously ARDR 299 (Prerequisite: department approval)

Provides opportunity for the student to work for one term on a cooperative basis in an appropriate, defined training program. The position is paid.

ARDR 2297 – Independent Study 1–7
Previously ARDR 297 (Prerequisite: department approval)

Defines a specific problem in the area of the student's interest and directly related to the program. The student develops and executes a solution using analytical and drafting techniques. An oral presentation may be required.

ARDR 2298 – Internship 3
Previously ARDR 298 (Prerequisite: department approval)

Provides opportunity for the student to work for one term on a cooperative basis in an appropriate, defined training program. The position is not paid.

ARDR 2999 – ARDR Seminar II (Degree Level) 1
Previously ARDR 221L (Prerequisite: ARDR 1999 + department approval)

Updates and revises employment related documents prepared in the ARDR Seminar I (Certificate Level) class. Continues industry related research and the practice of employment procurement skills. This class should be taken in the last term before graduating with the degree. (30 lab hours per term)

ART (ARTH and ARTS) – Art Courses School of Communication, Humanities & Social Sciences

ARTH 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ARTH 1101 – Introduction to Art 3
Previously ART 101 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12)

Presents fundamental concepts of visual arts—the language of form and media of artistic expression. Possible museum exhibition attendance.

ARTH 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
Previously ART 296

Presents various topics. See *Schedule of Classes*.

ARTH 2200 – Women in Art 3
(Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12)

Examines the creative achievements of women artists, exploring the social and cultural contexts related to women's artwork in relationship to the history and contemporary practices of art.

ARTH 2201 – History of Art I 3
Previously ART 201 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12)

Surveys Near Eastern, Egyptian, Greek, Roman, early Christian, Byzantine, early Medieval, Romanesque and Gothic art and architecture. Fall, summer only

ARTH 2202 – History of Art II **3**

Previously ART 202 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12)

Surveys Italian and Northern Renaissance, Baroque, Rococo and 19th century Western European painting, sculpture and architecture. Spring, summer only.

ARTH 2250 – Modern Art **3**

Previously ART 250 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12)

Surveys major figures, movements and stylistic developments in Western art from 1850 to the present.

ARTH 2251 – Art of the American Southwest **3**

Previously ART 251 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12)

Presents interrelationships of three Southwestern cultures emphasizing major forms of expression in pottery, textiles, jewelry, architecture, painting and photography.

ARTH 2260 – Architectural History: Ancient through Modern **3**

Previously ART 260 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12)

Surveys the history of Western architecture from the pyramid to the post-modernist house; presents technological, stylistic and functional characteristics of monuments within their cultural contexts.

ARTS 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ARTS 1102 – Introduction to Studio Arts **3**

Previously ART 102

Covers techniques, materials and terminology in two-dimensional and three-dimensional image- and form-making, in hands-on studio format. Includes major studio concepts in design, drawing, painting, printmaking, ceramics, photography and sculpture.

ARTS 1106 – Drawing I **3**

Previously ART 106 (Recommended prerequisite: ARTH 1101)

Provides direct experience in exploring basic drawing concepts. Introduces the fundamentals of drawing, including the language of drawing, the use of drawing media (both wet and dry) and techniques associated with direct observational drawing skills.

ARTS 1121 – Two-Dimensional Design **3**

Previously ART 121 (Recommended prerequisite: ARTH 1101 + ARTS 1106)

Emphasizes visual awareness through direct experience with visual form—elements of line, shape, value, texture, color theory, space and volume, painting principles and visual vocabulary.

ARTS 1122 – Three-Dimensional Design **3**

Previously ART 122 (Prerequisite: ARTS 1106 + ARTS 1121)

Presents concepts, techniques, processes and vocabulary involved in working in the third dimension and emphasizes a variety of media and issues of space, form, mass and volume, line, texture, scale, proportion and the making of objects and spatial contexts.

ARTS 2096, 2196...2996 – Special Topics **1-6**

(all courses ending in 96 are topics courses)

Previously ART 296

Presents various topics. See *Schedule of Classes*.

Course Subject Code/Course Number – Course Name Credit Hours

ARTS 2204 – Life Drawing I **3**

Previously ART 204 (Prerequisite: ARTS 1106)

Continues descriptive and perceptual skills building on Drawing I, with an emphasis on human anatomical structures and historic concepts related to the drawing of the figure. Concludes with composition of the figure through use and study of models.

ARTS 2205 – Drawing II **3**

Previously ART 205 (Prerequisite: ARTS 1106)

Continues course of study initiated in ART 1106, offering further concentration on basic drawing concepts with greater emphasis on descriptive and perceptual drawing skills using wet and dry media and color. Explores aspects of experimental drawing, media and contemporary concerns, still life, landscape, portraiture and the figure in environmental contexts and in motion.

ARTS 2206 – Printmaking I **3**

Previously ART 206 (Prerequisite: ARTS 1106 + ARTS 1121; or department approval)

Introduces the fundamental methods of printmaking. Explores techniques and creative aspects of monotype, collagraph, relief and intaglio printmaking. Discusses lithography and screen printmaking.

ARTS 2207 – Painting I **3**

Previously ART 207 (Prerequisite: ARTS 1106 + ARTS 1121)

Explores the tradition of paint as a medium for artistic expression. Focuses on materials/media, tools, techniques, history and concepts of painting.

ARTS 2210 – Art Career Concerns **3**

(Prerequisite: ARTS 1106 + ARTS 1121; ARTS 2206 or ARTS 2207)

Presents the practicalities of building a fine art career with emphasis on developing a professional portfolio. Covers professional practices of the studio artist including self-promotion, contacts, research tools for exhibition venues and other art related opportunities.

ARTS 2211 – Portraiture **3**

Previously ART 211 (Prerequisite: ARTS 1106)

Develops skills in drawing and painting to depict the human likeness. Uses various artistic media to explore the anatomy of the human head and face in order to express individuality and mood. Examines the role of the portrait throughout history, together with the development of its skills.

ARTS 2214 – Life Drawing II **3**

Previously ART 214 (Prerequisite: ARTS 1106. Pre- or corequisite: ARTS 2204)

Extends the artistic study of the human figure through a greater variety of creative and expressive approaches, media and techniques.

ARTS 2216 – Printmaking II **3**

(Prerequisite: ARTS 2206 or department approval)

Continues exploration of print media begun in Printmaking I. Explores screen printing, multiple block relief printing, plate lithography and mixed media printmaking in an intermediate studio setting. Emphasizes developing a portfolio of prints focusing on individual expression, collaborative work and digital imagery. Includes lectures, visiting artists, demonstrations, practice and critique.

ARTS 2217 – Painting II **3**

Previously ART 217 (Prerequisite: ARTS 2207)

Continues course of study begun in ARTS 2207. Emphasizes more accomplished technical skills and more sophisticated conceptual understanding of content and form, with subjects drawn from imagination as well as observation. Focuses on the expressive potential of the medium.

ASTR – Astronomy Courses School of Math, Science & Engineering

ASTR 1010 – Introduction to Astronomy I **3**

Previously ASTR 101 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: MATH 0940)

Introduces the science of astronomy, focusing on the historical development of astronomy, radiation, spectroscopy, telescopes and the exploration of the solar system.

ASTR 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ASTR 1110 – Introduction to Astronomy II **3**

Previously ASTR 102 (Prerequisite: RDG 0950 + MATH 0940; or appropriate placement scores, see page 12)

Explores life cycles of stars and stellar systems and the structure of the universe. Focuses on the births, lives and deaths of stars; the nature of the Milky Way galaxy and current concepts on cosmology and the large-scale structure of the universe.

ASTR 1192 – Astronomy Laboratory **1**

Previously ASTR 111L (Pre- or corequisite: ASTR 1110)

Investigates in optional laboratory setting the principles discussed in ASTR 1110. (45 lab hours per term)

ASTR 2096, 2196...2996 – Special Topics **3**

(all courses ending in 96 are topics courses)

Previously ASTR 296 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents various topics. See *Schedule of Classes*.

AUTC – Automotive Technology Courses School of Applied Technologies

AUTC 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

AUTC 1110 Introduction to Automotive Systems **4**

(Prerequisite: RDG 0750 + MATH 0750; or appropriate placement scores, see page 12; or department approval)

Introduces essential shop skills including safety, tool identification and use, under-car and under-hood servicing, repair information retrieval and proper use and care of equipment. Introduces the relationships between all vehicle systems and sub-systems. Prepares students to perform basic service operations required of entry level technicians. Introduces students to program and CNM. (30 theory + 90 lab hours per term)

AUTC 1120 – Brake Systems **4**

Previously AUTC 121L (Pre- or corequisite: AUTC 1110 + AUTC 1140; or department approval)

Introduces principles of hydraulic brake operation and practical skills of diagnosis and repair of standard and anti-lock brakes. Includes lab activities on brake bleeding and adjustment, drum and rotor machining, master cylinder and brake caliper repair. (30 theory + 75 lab hours per term)

AUTC 1130 – Suspension and Alignment **4**

Previously AUTC 122L (Pre- or corequisite: AUTC 1110 + AUTC1140; or department approval)

Presents repair and service on a variety of modern vehicle suspension types. Includes strut replacement, wheel alignment and tire balancing, steering gear repair and rebuilding of common suspension components. (30 theory + 75 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

AUTC 1140 – Automotive Electrical **4**

Previously AUTC 126L (Prerequisite: RDG 0750 + MATH 0750; or appropriate placement scores, see page 12; or department approval)

Presents critical skills necessary for identifying and correcting problems found in automotive electrical/electronic systems. Includes DVOM and analog meter use, voltage drop testing, wiring schematic interpretation and electrical troubleshooting procedures. (30 theory + 90 lab hours per term)

AUTC 1210 – Manual Transmissions **4**

Previously AUTC 123L (Pre- or corequisite: AUTC 1110 or AUTC 1140 or department approval)

Introduces fundamentals of design and operation in front and rear drive manual transmissions, differentials and drive line components. Activities include disassembly, measurement, inspection and repair of various transmissions in the car and on the bench. (30 theory + 75 lab hours per term)

AUTC 1220 – Engine Repair **4**

Previously AUTC 131L (Prerequisite: AUTC 1110. Pre- or corequisite: AUTC 1140 or department approval)

Introduces internal combustion engine theory, engine overhaul procedures and precision tool measuring. Includes essential engine testing and identification of needed repairs along with removal/replacement of engines. (30 theory + 90 lab hours per term)

AUTC 1230 – Automatic Transmissions **4**

Previously AUTC 132L (Prerequisite: AUTC 1110. Pre- or corequisite: AUTC 1140 or department approval)

Explores the fundamentals of design and operation of automatic transmissions and transaxles, servicing and proper repair procedures. Students perform pump, clutch repair, valve body overhaul and gear replacement on a variety of transmissions. (30 theory + 90 lab hours per term)

AUTC 1240 – Automotive Electronics **4**

Previously AUTC 133L (Prerequisite: AUTC 1110 + AUTC 1140; or department approval)

Builds on skills developed in AUTC 1140. Covers testing and diagnostic procedures in more complex automotive electronic systems. Includes lighting circuits, body computers and sensors, use of lab scopes and scan tools. (30 theory + 75 lab hours per term)

AUTC 1250 – Transportation Trades Machining **3**

Previously AUTC 170

Introduces the practices of basic machining as they relate to gasoline and diesel engines, safety, proper use of hand and special tools, how to set up and use the lathe, mill and drill press. (15 theory + 75 lab hours per term)

AUTC 2096, 2196...2996 – Special Topics **1–6**

(all courses ending in 96 are topics courses)

Previously AUTC 296 (Prerequisite: department approval)

Presents various problems and current automotive subjects.

AUTC 2110 – Air Conditioning and Heating **4**

Previously AUTC 134L (Pre- or corequisite: AUTC 2130 or department approval)

Covers testing, evacuating and charging air conditioning systems while maintaining an awareness of potential environmental concerns caused by automotive refrigerants. Addresses cooling and heating diagnosis, climate control trouble-shooting and component repair. Includes a 40-hour industry shadow assignment (30 theory + 90 lab hours per term)

AUTC 2120 – Engine Performance I **4**

Previously AUTC 231L (Prerequisite: AUTC 1240 or department approval)

Provides information for basic test and repairs on computer controlled automotive drive trains. Includes engine condition diagnosis, the diagnostic process, service bulletins, scan tool data, fuel and fuel delivery. Engine performance I gives the learner mastery of the basic skills contained in the ASE/NATEF engine performance program standards. (30 theory + 75 lab hours per term)

AUTC 2130 – Engine Performance II **4**

Previously AUTC 232L (Pre- or corequisite: AUTC 2120 or department approval)

Provides intermediate and advanced information to test and repair computer controlled automotive drive trains. It concentrates on ignition systems, computer sensor diagnosis, emission control devices and five gas exhaust analysis, advanced diagnostic procedures, OBD II design and function and an overview of hybrid systems. It provides further advanced mastery of ASE/ NATEF engine performance program standards. (30 theory + 90 lab hours)

AUTC 2197 – Independent Study **Variable**

Previously AUTC 297 (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

AUTC 2999 – Automotive Technology Capstone Course **1**

Previously AUTC 295 (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. (Taken during student's last term).

AVIA – Aviation Courses School of Applied Technologies

AVIA 1010 – Introduction to Aircraft Structural Assembly **3**

Previously AVIA 101A

Provides preparation for aircraft structural assembly with emphasis on safety, Foreign Object Damage (FOD) prevention, general aviation information, measurement and layout tools, military standards, fasteners and blueprint interpretation. **$ Additional fees published in the *Schedule of Classes*.**

AVIA 1015 – Aircraft Structural Assembly Manufacturing **3**

Previously AVIA 101B

Introduces metal working equipment and tools used to cut, form, bend and fasten aircraft sheet metal assemblies. Course emphasizes procedures and policies used throughout the aerospace industry. **$ Additional fees published in the *Schedule of Classes*.**

AVIA 1092 – Aircraft Structural Assembly Lab **3**

Previously AVIA 101L

Utilizes metal working equipment and tools to measure, layout, form, cut, bend and fasten aircraft sheet metal assemblies with emphasis on aircraft manufacturing policies and procedures. Students will build various sheet metal assemblies including a Simulated Aircraft Structure TM. (90 lab hours) **$ Additional fees published in the *Schedule of Classes*.**

AVIA 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

AVIA 1110 – Introduction to Modern Commercial Air Operations **2**

Previously AVIA 125

Introduces the student to career opportunities in aviation disciplines, pilot requirements and responsibilities, crew coordination, aviation safety, aircraft characteristics and the regulatory environment associated with charter, commuter and major airlines flying. Topics include aircraft selection criteria, basing and maintenance, operational procedures, scheduling, routing, flight planning programs, roles and responsibilities of dispatchers, crew continuing training and utilization of large motion based simulators.

AVIA 1140 – Meteorology **3**

Previously AVIA 140

Studies weather recognition, icing, fog fronts, clouds, weather maps and symbols, forecasting pressure patterns, wind systems, temperature-humidity-dew point relationships and precipitation, with emphasis on the practical application of this knowledge to safe flying practices. The services and assistance available from the US government and the many commercial providers will be discussed.

Course Subject Code/Course Number – Course Name Credit Hours

AVIA 1145 – Aircraft, Engines and Maintenance **3**

Previously AVIA 144

Focuses on the study of the evolution, types of aircraft engines and the FAA requirements to maintain engines and aircraft. This study includes principles of internal combustion engines, engine design and construction, fuel, lubrication and cooling systems, propellers, aircraft electrical systems and aircraft trouble shooting, preventive maintenance, repair and maintenance, maintenance records and aircraft accessories.

AVIA 1150 – Aviation Electricity **2**

Previously AVIA 160

Provides an elementary basis for understanding the operating principles of modern aircraft electrical systems, instrumentation and avionics. Topics include fundamental concepts such as electromagnet force, current and resistance, Ohms law, interactions between electric and magnetic fields, interactions between magnetic fields and conductors, electrometric field phases, solid state junctions and system components such as inductors, resistors, capacitors, amplifiers, transistors and diodes.

AVIA 1192 – Electrical Systems Installation **3**

Previously AVIA 104L

An introduction to basic avionics systems installation to include wire termination, basic soldering practices, ground hook-ups, wire bundle build up and clamping, installation and documentation. Laboratory exercises will provide students with hands-on training in all aspects of electrical systems installation procedures and techniques used in the aircraft manufacturing industry. (75 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVIA 1292 –Plumbing, Hydraulic and Pneumatic System Installation **3**

Previously AVIA 105L

This course provides skills necessary for the identification and installation of various pneumatic and hydraulic systems on aircraft to include tubing assemblies, oxygen and hydraulic plumbing procedures and documentation. Laboratory exercises will provide students with hands-on training in all aspects of plumbing, pneumatic and hydraulic systems installation procedures and techniques used in the aircraft manufacturing industry. (75 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVIA 1392 –Flight Control Cable and Rigging Assembly **3**

Previously AVIA 106L

This course provides skills necessary for the identification and installation of various control cables and assembly procedures and documentation to include control cable installation, turn buckles, pulleys and materials used where bulkhead penetration is a factor. Laboratory exercises will provide students with hands-on training in all aspects of rigging and flight control cable assembly procedures and techniques used in the aircraft manufacturing industry. (75 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVIA 1400 – Private Pilot **3**

Previously AVIA 132

Introduces basic principles of aircraft systems, flight and airport environments, aviation meteorology, navigation, radio communication and Federal Aviation Regulations to qualify the student for the FAA written examination for the Private Pilot Certification and meets the FAA requirements for ground instruction. Private Pilot Kit/ **$ Additional fees published in the *Schedule of Classes*.**

AVIA 1492 – Private Pilot 3

Previously AVIA 132L (Pre- or corequisite: AVIA 1400)

Explores hands-on flight and simulator time including ground operations, take off and climb, flight at minimum control airspeeds, stalls, ground reference maneuvers, emergency procedures, landings, cross country navigation and basic instrument flying. Prepares the student with the practical knowledge and flight time to achieve the FAA Private Pilot certification. (135 lab hours per term) The student will pay Professional Pilot Training Laboratory fees directly to flight training provider.

AVIA 1500 – Instrument Rating and Commercial Pilot I 3

Previously AVIA 138 (Prerequisite: AVIA 1400 +/or a Private Pilot License)

Introduces to basic principles of aviation, meteorology, navigation, radio communication and Federal Aviation Regulations to prepare the student for the FAA Instrument Pilot Rating written examination, meets the FAA requirements for Instrument ground instruction and introduces the student to the Commercial Pilot rating. Commercial/instrument pilot kit/ **$ Additional fees published in the *Schedule of Classes*.**

AVIA 1592 – Instrument Rating and Commercial Pilot I Lab 3

Previously AVIA 138L (Pre- or corequisite: AVIA 1500)

Provides hands-on flight and simulation time that meets the required instructional time and aviation skills to pass the FAA Practical Standards Instrument Exam. The student also commences training for the Commercial Pilot rating. (135 lab hours per term) $ The student will pay Professional Pilot Training Laboratory fees directly to flight training provider.

AVIA 1600 – Commercial Pilot II 3

Previously AVIA 170 (Prerequisite: AVIA 1500 +/or Pilot Instrument Rating with some Commercial instruction)

Reviews current Federal Aviation Regulations, government publications, commercial flight standards, aircraft loading and weight and balance. Review of all aeronautical knowledge required to pass the FAA Single Engine (SE) Commercial written examination. This course fulfills FAA requirements for SE Commercial ground instruction. **$ Additional fees published in the *Schedule of Classes*.**

AVIA 1692 – Commercial Pilot II Lab 3

Previously AVIA 170L (Pre- or corequisite: AVIA 1600)

Provides hands-on flight and simulator time including the required skills and flight time to complete the FAA SE Commercial Pilot practical test check flight (135 lab hours per term) Course fee may be reduced based on any related prior flight. $ The student will pay Professional Pilot Training Laboratory fees directly to flight training provider.

AVIA 2096, 2196…2996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

AVIA 2100 – CFI and CFII Ratings 3

Previously AVIA 243 (Prerequisite: AVIA 1692 +/or SE Commercial Rating)

Reviews current Federal Aviation Regulations, government publications, CFI/CFII flight standards, the art of instruction and instructor requirements. Review of all aeronautical knowledge required to pass the FAA SE CFI and CFII written examinations. Preparation for the FAA oral exam is included. This course sequentially fulfills FAA requirements SE CFI and SE CFII ground instruction. SE Flight Instructor Pilot Kit: **$ Additional fees published in the *Schedule of Classes*.**

Course Subject Code/Course Number – Course Name Credit Hours

AVIA 2110 – Aerodynamics for Pilots 3

Previously AVIA 241 (Prerequisite: AVIA 1592. Corequisite: AVIA 2115)

Studies the theory of single and multi-engine flight, aircraft design, construction and operational limitations for high performance propeller and jet powered aircraft. The mathematical basis and relationships of fundamental properties such as lift, drag, angle of attack, power curves and the importance of specific excess power (Ps) for multi-and single-engine performance will be developed.

AVIA 2115 – Aerobatics, Spin and Up-Set Flight 1

Previously AVIA 242 (Prerequisite: AVIA 1592. Corequisite: AVIA 2110)

Explores the theory of flight characteristics over the entire range of an aircraft's aerodynamic and structural flight capabilities (V-N envelope). Emphasis is on performance on the boundaries of the V-N envelope and excursions beyond normal controlled flight. The course develops the details of the interactions among specific aerodynamic and inertial forces characteristic of spinning flight. Conditions potentially leading to up sets, such as autopilot flight in icing conditions, are described.

AVIA 2130 – Modern Avionics 3

Previously AVIA 245

Introduces emerging integrated aircraft instrumentation and navigational and flight control systems to include "glass cockpits" with primary flight displays (PFDs), multifunctional displays (MFDs), ground and collision avoidance systems (GPWS), collision avoidance systems (TAWS), electronic power management systems and full integrated auto flight systems with precision instrument approach and landing capabilities.

AVIA 2135 – Introduction to Air Traffic Control 3

Previously AVIA 246

Describes the components, functions and interactions of the US Air Traffic Control (ATC) system. Elements include flight service stations, tower control, approach control and ATC Centers. Operations and capabilities, including weather, radar and communications are described in terms of benefits to and obligations of, the pilot.

AVIA 2192 – CFI and CFII Ratings 3

Previously AVIA 243L (Pre- or corequisite: AVIA 2100)

Provides hands-on flight and simulator time including the required skills and flight time to complete the FAA SE CFI and SE CFII practical tests. (135 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVIA 2200 – Multi-Engine (ME) Commercial/ME Certified Flight Instructor (MEI) 3

Previously AVIA 248 (Prerequisite: AVIA 2192 +/or SE Commercial Rating and SE CFI-CFII Ratings)

Studies the principles of flight unique to multi-engine aircraft. Single engine flight in twin-engine aircraft is presented in detail, with emphasis on the dramatic reduction in specific excess power (Ps) and flight control trim requirements. The student receives the required ground instruction to pass the FAA ME Commercial and MEI written tests and to become a ME rated pilot with Commercial and MEI ratings. CFI FAA oral exam preparation is included. Multiengine Pilot Kit/ **$ Additional fees published in the *Schedule of Classes*.**

AVIA 2250 – Global Air Navigation 3

Previously AVIA 250

Surveys international and over-water flight navigation procedures and equipment used by airline, air cargo and general aviation aircraft. Navigation elements include basic dead reckoning and position plotting with the aid of ground and satellite based navigational aids, wide area systems such as Loran, GPS and on-board inertial navigation systems. Procedural elements include international aviation governing groups and rules such as Reduced Vertical Separation Minimums and worldwide charting information services.

AVIA 2255 – Aviation Physiology 2

Previously AVIA 253

Provides an in-depth study of aero-medical factors for pilot. The course covers recognition, treatment and prevention of problems associated with exposure to reduced atmospheric pressure, sensory (visual and vestibular) problems in flight, environmental stressors and health and wellness factors that can impact human performance in flight.

AVIA 2260– Crew Resource Management (CRM) 2

Previously AVIA 254

Focuses on integrating crewmembers and enhancing performance in the cockpit. Topics include: pilot judgment, decision making, leadership styles, techniques for effective cockpit communication in the task saturated environment and accident /mishap review processes.

AVIA 2265– Management of Air Operations 2

Previously AVIA 255

Describes oversight requirements and techniques for managing various categories of air operations: commercial, public and military. The Code of Federal Regulations 14, Parts 135 and 121 are surveyed to include operational specifications, pilot and management requirements, crew rest considerations and operational procedures typically employed by on-demand, commuter and airline operations. Differences in management between commercial and public and military management are described.

AVIA 2270– Turbine Aircraft Systems 6

Previously AVIA 256 (Prerequisite: AVIA 2192)

Introduces the student to complex systems associated with modern turbine powered aircraft (turboprop/turbojet). It provides a working knowledge of turbine engines, propellers, advanced avionics and hydraulic, electrical, pneumatic, environmental and safety systems commonly found on commercial, business and military aircraft.

AVIA 2285 – Advanced Flight Labs (Frasca SE FTD) 1

Previously AVIA 262A (Prerequisite: AVIA 1492)

Enables the student to build instructor supervised advanced proficiencies and flight experience in single engine aircraft training options in the FTD. Instruction includes: airport area, cross country flight and terminal procedures. (15 hours ground instruction – 30 hours FTD time) **$ Additional fees published in the *Schedule of Classes*.**

AVIA 2290 – Advanced Flight Labs (Frasca ME FTD) 1

Previously AVIA 262B (Prerequisite: AVIA 2192)

Enables the student to build instructor supervised advanced proficiencies and flight experience in multiengine aircraft training options in the FTD. Instruction includes: airport area, cross country flight and terminal procedures. (15 hours ground instruction – 30 hours FTD time) **$ Additional fees published in the *Schedule of Classes*.**

AVIA 2292 – Multi-Engine (ME) Commercial/ME Certified Flight Instructor (MEI) 3

Previously AVIA 248L (Pre- or corequisite: AVIA 2200)

Provides the hands on flight and simulator skills and flight time required to complete the FAA ME Commercial Pilot and MEI Commercial Pilot ratings. Course emphasis includes recognizing impending or actual engine failure, taking immediate and appropriate action, while maintaining control and appropriate airspeed in both visual and instrument environments. The MEI adds multi-engine instrument flight and instruction skills, to include simulated single engine instrument approaches and the CFI Pilot practical check flight. (135 lab hours) **$ Additional fees published in the *Schedule of Classes*.**

Course Subject Code/Course Number – Course Name Credit Hours

AVIA 2392 – Advanced Flight Labs (Cessna 172) 1

Previously AVIA 260L (Prerequisite: AVIA 1492)

Enables the student to build instructor supervised advanced proficiencies and flight experience in single engine aircraft training options. Instruction includes: airport area, cross country flight and terminal procedures. (15 hours ground instruction – 30 hours flight time) **$ Additional fees published in the *Schedule of Classes*.**

AVIA 2492 – Advanced Flight Labs (BE-95) 1

Previously AVIA 261L (Prerequisite: AVIA 2192)

Enables the student to build instructor supervised advanced proficiencies and flight experience in multiengine aircraft training options. Instruction includes: airport area, cross country flight and terminal procedures. (15 hours ground instruction – 30 hours flight time) **$ Additional fees published in the *Schedule of Classes*.**

AVMT – Aviation Maintenance Courses School of Applied Technologies

AVMT 1096, 1196…1996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

AVMT 1240 – Aircraft Forms, Regulations, Publications and Mathematics 4

(Recommended prerequisite: ENG 0950 + RDG 0950 + MATH 0940; or appropriate placement scores, see page 12. Corequisite: AVMT 1260 + AVMT 1270; or department approval)

Provides overview of technician's privileges and limitations. Includes familiarization with FAA forms and records. Presents mathematical computations of fundamental electrical circuit parameters Includes drawing symbols and schematic diagrams. (53 theory hours and 45 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 1260 –Basic Electricity I and Aircraft Weight and Balance 4

(Recommended prerequisite: ENG 0950 + RDG 0950 + MATH 0940; or appropriate placement scores, see page 12. Corequisite: AVMT 1240 + AVMT 1270; or department approval)

Includes basic definitions, laws and concepts. Includes schematic, wiring and parts placement diagrams Test and troubleshoot electrical and electronic components and circuits. Also provides an understanding of aircraft weight and balance and its integration into the maintenance function. (30 theory hours and 75 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 1270 –Basic Electricity II, Materials and Processes and Cleaning and Corrosion Control 4

(Recommended prerequisite: ENG 0950 + RDG 0950 + MATH 0940; or appropriate placement scores, see page 12. Corequisite: AVMT 1240 + AVMT 1260; or department approval)

Includes practical application of reading schematics, wiring diagrams along with parts placement diagrams, testing and troubleshoot electrical and electronic components and circuits. Also presents materials and processes as it relates to aircraft materials and tool usage. (33 theory hours and 75 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 1280 – Aviation Physics, Aircraft drawings, Ground Operations and Servicing, Fluid Lines and Fittings and Corrosion Control 5

(Recommended prerequisite: ENG 0950 + RDG 0950 + MATH 0940; or appropriate placement scores, see page 12. Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270; or department approval)

Provides basic concepts of motion, fluid dynamics, heat and sound, aerodynamics, aircraft structure and theory of flight. Includes fluid lines and fittings, component identification, function, inspection and installation. Presents cleaning and corrosion control non-destructive testing and precision measurement techniques. Performs aircraft ground operations and fuel servicing techniques. (70 theory hours and 26 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 2096, 2196…2996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*

AVMT 2220 – Aircraft Wood Structures, Covering, Finishing and Bonded Structures 5

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270. Corequisite: AVMT 1280 or department approval)

Presents theories and techniques of aircraft wood structures. Presents inspection, test and repair of aircraft fabric and wood structures. Aircraft structural design and methods of working with selected materials. Characteristics of composites, inspections and repairs. (53 theory hours and 62 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 2225 – Atmosphere Control, Fire Detection, Ice and Rain Protection Systems 5

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270. Corequisite: AVMT 1280 or department approval)

Presents operation and maintenance of aircraft auxiliary systems, inspection, servicing, troubleshooting and repair of environmental control, ice and rain control, fire protection and warning systems. (75 theory hours and 15 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 2230 – Aircraft Sheet Metal 4

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280; or department approval)

Presents inspection, fabrication and repair techniques of aircraft structural and nonstructural components and sheet metal heat-treating techniques. (35 theory hours and 94 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 2235 – Aircraft Landing Gear, Hydraulic, Pneumatic and Fuel Systems 5

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280; or department approval)

Presents identification, inspection, repair and troubleshooting techniques of aircraft landing gear, hydraulic, fuel, pneumatic systems. (60 theory hours and 35 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 2240 – Aircraft Electrical Systems 3

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280; or department approval)

Presents proper operation, inspection, servicing and troubleshooting of DC (Direct Current) generator, DC alternator, AC (Alternating Current) alternator, voltage regulator, reverse current relay, generator and alternator protection devices. Also includes solenoids and relays. (36 theory hours and 40 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

Course Subject Code/Course Number – Course Name Credit Hours

AVMT 2243 –Aircraft Instruments, Position and Warning and Communication and Navigation Systems 5

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1280; or department approval)

Presents communications, navigations, information display systems, transmitters and receiver fundamentals. Includes avionics installation, inspection and testing. Also includes the identification, inspection and testing of position and warning system components. Includes mechanical and electrical sensing devices. (68 theory hours and 38 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 2245 – Airframe Assembly, Rigging and Welding 5

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280; or department approval)

Presents aircraft assembly and rigging, flight control balancing and rigging. Aircraft welding techniques, theory and materials identification. (69 theory hours and 50 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 2250 – Reciprocating Engines 4

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270. Corequisite: AVMT 1280 + AVMT 2392; or department approval)

Presents historical development and application of reciprocating engines. Includes the theory of internal combustion, design and environmental factors, which influence propulsion. Reciprocating engine troubleshooting, inspection, service, repair and overhaul. Operational characteristics and engine test techniques on the aircraft and in test cells.

AVMT 2260 – Aircraft Turbine Engines I 6

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280; or department approval. Corequisite: AVMT 2262)

Presents the historical development and application of turbine engines along with the theory of thrust. Includes the design and environmental factors, which influence thrust. Turbine engine troubleshooting, inspection, service, repair and overhaul. Operational characteristics and engine test techniques on the aircraft and in test cells.

AVMT 2262 – Aircraft Turbine Engines II, Induction, Lubrication and Engine Fire Protection Systems 4

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280; or department approval. Corequisite: AVMT 2260)

Presents the tear down, inspection and rebuild of an aircraft turbine engines. Also includes troubleshooting, inspection, service, repair and overhaul procedures. Included in this course are the operation, inspection and maintenance of induction, lubrication and engine fire protection systems. (30 theory hours and 75 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 2265 – Engine Fuel and Metering Systems 6

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280; or department approval)

Presents inspection, servicing, troubleshooting, overhaul and repair of aircraft fuel systems and components, fuel metering devices, injection systems, turbochargers and superchargers. (75 theory and 50 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 2270 – Engine Electrical Systems 4

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1280; or department approval)

Presents the inspection, service, troubleshooting, overhaul and repair of engine electrical systems and components. (45 theory and 30 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 2275 – Engine Instruments, Cooling, Exhaust, Ignition and Starting Systems 5

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280; or department approval)

Presents the operation, maintenance, servicing, inspection, repair and troubleshooting of engine instruments, engine lubrication, cooling and exhaust systems. Also included is the theory of operation, maintenance, inspection, service, repair and troubleshooting of ignition and starting systems used in reciprocating and turbine engines. (60 theory hours and 45 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 2280 – Propeller Systems, Engine Inspections and Test and Review 5

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280 + AVMT 2250 + AVMT 2392 + AVMT 2260 + AVMT 2262 +AVMT 2265. Corequisite: AVMT 2270 or department approval)

Discusses the historical development, operation, disassembly, inspection, repair and maintenance of propellers. Also presents aircraft engine inspection techniques and reporting procedures. Presents log book record keeping skills. This course includes program review information to assist in the preparation for the final exam. Also allows extra course time to satisfy FAA time rules. (60 theory hours and 50 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 2292 –Airframe Inspection and Test and Review 2

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270 + AVMT 1280 + AVMT 2220 + AVMT 2225 + AVMT 2230 + AVMT 2235 + AVMT 2240. Corequisite: AVMT 2243 + AVMT 2245; or department approval)

Presents aircraft airframe inspection technique sand reporting procedures. Also presents log book record keeping skills. This course includes program review information to assist in the passing of the final exam. Also allow extra course time to satisfy FAA time rules. (75 lab hours) **$ Additional fees published in the *Schedule of Classes*.**

AVMT 2392 – Reciprocating Engines Lab 4

(Prerequisite: AVMT 1240 + AVMT 1260 + AVMT 1270; or department approval. Pre- or corequisite: AVMT 2250 + AVMT 1280)

Applies the practical application of the tear down, inspection and rebuild of aircraft reciprocating engines. Also includes troubleshooting, inspection, service, repair and overhaul procedures. (150 lab hours) **$ Additional fees published in the *Schedule of Classes*.**

BA – Business Administration Courses School of Business & Information Technology

BA 1015 – Introduction to Internet Commerce 1

Previously ECM 1010

Introduces E-Commerce business models and payment systems. Internet operation and concepts including domain naming, ISP, ASP, FTP, e-mail, routing, bandwidth and security are presented. (10 theory + 15 lab hours)

BA 1096, 1196...1996 – Special Topics 1–3
(all courses ending in 96 are topics courses)

Previously BA 296

Explores current topics in business.

BA 1101 – Introduction to Business 3

Previously BA 113 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12; or department approval)

BA 1101 is a survey course. Topics include basic business principles, business research, economic systems, international trade, business ethics, forms of business ownership, entrepreneurship, human resources, marketing, personal money management, investing and the financial markets. Emphasis is on relating topics to a market economy.

Course Subject Code/Course Number – Course Name Credit Hours

BA 1103 – Introduction to International Business 3

Previously IB 1010 (Prerequisite: RDG 0750; or appropriate placement scores, see page 12 or ESL 0750; or department approval)

Introduces international business and the globalization of the economy. Students are introduced to objectives, opportunities and challenges facing those who engage in business in foreign countries. Foreign organizations, cultural dynamics, trade channels, legal environment and political considerations are discussed.

BA 1105 – Introduction to Entrepreneurship 3

Previously ENTR 1101 (Prerequisite: RDG 0750+ ENG 0750; or appropriate placement scores, see page 12; or department approval)

Introduces students to the concept of entrepreneurism and to the fundamentals of the business process. Students study basic topics such as idea generation and evaluation, basic marketing concepts, financial management, small business management, small business organization and financing.

BA 1115 – Web Business 3

Previously ECM 1105 (Recommended pre- or corequisite BA 1015)

Focuses on how an online business is set up, organized and operated. This is the foundation course for students interested in e-commerce. Basic concepts for operating an online business are introduced. Topics include electronic payments, Web business models (auction, broker, advertising, catalog, etc.), security, privacy, order processing and store operations.

BA 1121 – Business English 3

Previously BA 121 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Focuses on the principles of effective written communication in the business environment. Emphasizes correct grammar, punctuation, sentence structure and vocabulary.

BA 1122 – Business Writing 3

Previously BA 122 (Prerequisite: BA 1121. Recommended prerequisite: 25 wpm typing skill)

Builds on principles presented in BA 1121 and integrates those principles in composing effective business letters, memos and reports; students develop oral presentation skills.

BA 1131 – Business Interpersonal Skills 3

Previously BA 131 (Prerequisite: RDG 0750 + ENG 0750; or department approval)

Focuses on developing interpersonal skills appropriate for the business environment. Topics include: attitude/perception, diversity, ethics, communication skills, teamwork/team building, business etiquette, group problem solving, conflict resolution and presentation skills.

BA 1133 – Principles of Management 3

Previously BA 133 (Prerequisite: RDG 0750 or department approval)

Introduces the basic theory of organization and includes the management functions of planning, organizing, directing and controlling, human relations, group process, problem solving, team building and leadership skills.

BA 1150 – Introduction to Quality Management 1

Previously BA 101 (Prerequisite: RDG 0750 or department approval)

Presents concepts and theories of quality management. Focus is on helping students understand the cost of poor quality, why quality matters, how work methods and business processes impact employee job performance and anticipate obstacles to quality improvement, practical application of quality and application of quality principles.

BA 1151 – Fundamentals of Continuous Quality Improvement (CQI) 1

Previously BA 102 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12 or department approval)

Focuses on data for clarifying customer expectations for service and product quality; choosing quality standards for business performance; selecting measures and indicators of quality and customer satisfaction; assessing effective ways to evaluate and improve both quality and customer satisfaction, improving quality based on customer feedback; and planning for practical application.

BA 1152 – Quality Tools 1

Previously BA 103 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12 or department approval)

Focuses on recognizing and understanding applications for quality tools, developing skill and confidence in using quality tools, selecting and integrating quality tools to improve a specific work process; and planning for practical application of quality tools at work and in personal life.

BA 1165 – Personal Finance 1

Previously BA 165 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12 or department approval)

Focuses on personal and financial planning with an emphasis on record keeping.

BA 1166 – Personal Investment Management 1

Previously BA 166 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12 or department approval)

Presents the basics of investment, securities markets, stocks and bonds, mutual funds and other alternatives of investment. Risks associated with each and sources of investment information are discussed.

BA 1167 – Retirement Investment 1

Previously BA 167 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12)

Focuses on retirement and estate planning.

BA 2095 – Cooperative Education 4

Previously BA 299 (Prerequisite: department approval)

Provides an opportunity for a structured educational "paid" work experience related to a student's academic goals. Internship is a partnership between the students and both the educational institution and the employer, with specified responsibilities for each party. Requires a minimum of 150 hours and must involve a new learning experience.

BA 2096, 2196...2996 – Special Topics 1-6

(all courses ending in 96 are topics courses)

Previously BA 296

Explores current topics in business.

BA 2097 – Independent Study 1-6

Previously BA 297 (Prerequisite: department approval)

Student works with the instructor on specific topics directly related to the course or program of study. The meeting time is arranged between the student and the instructor.

BA 2098 – Internship 4

Previously BA 298 (Prerequisite: department approval)

Provides an opportunity for a structured educational "unpaid" experience related to a student's academic goals. Internship is a partnership between the student and both the educational institution and the employer with specified responsibilities for each party. Requires a minimum of 150 hours and must involve a new learning experience.

Course Subject Code/Course Number – Course Name Credit Hours

BA 2101 – Entrepreneurship IA 3

Previously ENTR 2101 (Prerequisite: RDG 0750+ ENG 0750; or appropriate placement scores, see page 12 or department approval; Recommended prerequisite: BA 1105)

Focuses on new business design and development. Students study critical issues experienced by entrepreneurs while exploring and creating an effective model of their own. Emphasis is on customized market research and feasibility assessment. BA 2101 plus BA 2102 are equivalent to BA 2103.

BA 2102 – Entrepreneurship IB 3

Previously ENTR 2102 (Prerequisite: BA 2101)

Students use the market research and feasibility assessment from BA 2101 to develop a complete business plan for their business. Emphasis is on writing the vision and mission statement, the company overview, the product/service strategy, the marketing plan, the financial plan and the executive summary. Entrepreneurship higher-level case studies are woven into the course content. BA 2101 plus BA 2102 are equivalent to BA 2103.

BA 2103 – Entrepreneurship 6

Previously ENTR 2103 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12 or department approval. Recommended prerequisite: BA 1105)

Focuses on new business design and skill development. Students complete a market research and feasibility assessment to develop a complete business plan. Emphasis is on business research and writing the vision and mission statement, company overview, product/service strategy, marketing plan, financial plan and executive summary. BA 2101 plus BA 2102 are equivalent to this course.

BA 2104 – Entrepreneurship in a Global Setting 3

Previously ENTR 2104 (Prerequisite: RDG 0750+ ENG 0750; or department approval. Recommended prerequisite: BA 1105)

Focuses on providing an overview of entrepreneurship for the 21st century with an emphasis on entrepreneurship in a global setting. The contemporary world of entrepreneurship, the entrepreneurial perspective, the development of the entrepreneurial plan and entrepreneurial ventures are covered.

BA 2120 – Financing an Import/Export Business 1

Previously IB 2211 (Prerequisite: BA 1101 or BA 1103 or department approval)

Focuses on how and where to obtain financing to operate an existing international business. Includes domestic and international financing sources, commercial banks and government guarantees, e.g. the Small Business Administration and how to obtain letters of credit.

BA 2121 – Basics of Importing 1

Previously IB 2215 (Prerequisite: BA 1101 or BA 1103 or department approval)

Focuses on importing terminology, importing inco terms (standard trade definitions), flow of importing documents, customs broker assistance with importing issues, importing quality control, currency, ethics and environment for importers, trade shows, trademark and property rights.

BA 2122 – Basics of Exporting 1

Previously IB 2216 (Prerequisite: BA 1101 or BA 1103 or department approval)

Focuses on exporting terminology, exporting inco terms (standard trade definitions), flow of exporting documents, customs broker assistance with exporting issues, exporting quality control, currency, ethics and environment for exporters, trade shows, trademarks and property rights.

BA 2153 – Team Building for Quality 1

Previously BA 104 (Prerequisite: RDG 0750; or appropriate placement scores, see page 12; or department approval)

Focuses on difference between team work and group work, specific situations when teamwork is needed and not needed, designing and launching a successful team, recognizing and appreciating divergent styles of team players, learning and improving skills and tools that contribute to successful teamwork, understanding and managing phases in team development, recognizing and managing obstacles to team success.

BA 2154 – Re-engineering for Quality **1**

Previously BA 105 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12 or department approval)

Focuses on competitive market forces that are compelling organizations to radically redesign their business, recognizing primary obstacles to reengineering and innovation, thinking creatively about critical success factors in their personal and professional lives, and developing a personal and professional strategy for growth and success in a rapidly changing business environment.

BA 2155 – Quality Leadership **1**

Previously BA 106 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12; or department approval)

Presents the urgent need for leadership in today's businesses, communities and families; focuses on understanding the difference between leadership and management; exploring strategies, building confidence and developing skills for effective leadership; identifying opportunities for leadership from within or from bottom of an organization; and planning to increase personal influence and leadership.

BA 2160 – Web Shopping Carts **3**

Previously ECM 2225 (Prerequisite: BA1115 or department approval. Recommended prerequisite: BA 1015)

Presents the methods for making electronic payments online. Students study shopping cart features and operation. Related topics also include credit cards, merchant accounts, personal accounts, digital wallets, micro payments and the use of digital signatures and encryption.

BA 2161 – Web Stores **3**

Previously ECM 2240 (Prerequisite BA 1115 or department approval. Recommended prerequisite: BA 1015)

Focuses on bringing together the techniques and applications for operating an online business. On the product side, product selection, product sourcing and order fulfillment for an online business are integrated. In the area of operations, selecting the correct e-commerce applications and credit risk management are discussed. These topics are also linked with marketing and customer service.

BA 2220 – Web Marketing **3**

Previously ECM 2220 (Recommended prerequisite: BA 1115)

Focuses on planning to create and market a website. Internet marketing topics such as registering with search engines, increasing traffic, segmenting and targeting markets, establishing an online presence, developing a marketing plan and reshaping business for the Web market are covered.

BA 2221 – International Marketing **3**

Previously IB 2101 (Prerequisite: BA 1101 or BA1103 or department approval)

Introduces marketing in a globalized world economy. The student will be introduced to a framework for analyzing marketing opportunities in different cultures and nations using the marketing mix.

BA 2222 – Principles of Marketing **3**

Previously BA 222 (Prerequisite: BA 1101 + BA 1121; or department approval)

Introduces methods, policies and organization involved in the exchange of goods and services between producers and consumers. Topics include social, economic and legal environments in which marketing operates, consumer behavior, market research, market segmentation and target marketing, strategic marketing, product planning, pricing, promotion and distribution.

BA 2223 – Consumer Behavior **3**

(Prerequisite: BA 1101 + BA 1121; or department approval)

Explores the basic principles of consumer behavior, which offers insight into the needs, motivations, perceptions and attitudes of consumers and the influence of social class, culture and subculture on consumer behavior. Application of theories from psychology, social psychology and economics are examined. Course explores implications of concepts for marketing decisions. Emphasis on model building and marketing strategy formulation.

Course Subject Code/Course Number – Course Name Credit Hours

BA 2224 – Introduction to Market Research **3**

(Prerequisite: BA 2222 or department approval)

Focuses on student understanding of marketing, environmental and dynamic interrelationships of the functions of marketing price, channels of distribution, promotion and product development and management. Provides simulated marketing environment for experience in marketing decision-making and analyzing market cases. Emphasis is on design of measurement instruments, sampling, data collection and analysis.

BA 2225 – Marketing Services **3**

(Recommended Prerequisite: BA 1101 or BA 2222 or BA 2223 or BA 2224 or BA 1105)

Focuses on basic marketing principles applied to sports venues, non-profit organizations and special events. The course provides a simulated marketing environment for experience in marketing decision making and provides practical experience in implementing specialized marketing tools.

BA 2226 – Sales **3**

Previously BA 284 (Prerequisite: HT 1132; BA 2222 or HT 2141; or department approval)

Covers the principles and techniques of personal selling as a form of persuasive communication basic to business and other types of interpersonal relationships. Sales principles, demonstrating selling skills and promoting goods and services are emphasized. Each student presents sales presentations.

BA 2228 – Advertising **3**

Previously BA 286 (Prerequisite: BA 2222 or department approval)

Covers the history of advertising promotion and media available today, the psychological approach to consumer persuasion, the techniques used in media selection and the creative processes of advertising. Students develop an advertising plan, select and schedule media, create budgets, design and produce advertisements and evaluate advertising effectiveness.

BA 2230 – Customer Relations **3**

Previously BA 252 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Focuses on the relationship of self to customers, problem solving and communicating with customers, understanding customers, anticipating customers' needs and offering assistance.

BA 2232 – Supervision **3**

Previously BA 255 (Prerequisite: HT 1101 or BA 1133; ENG 1101 or BA 1121; or department approval)

Focuses on the fundamental elements of supervision and the different supervisory roles. Planning and control, organizing, staffing and employee development, motivating individual and group performance and coping with workplace dynamics are covered.

BA 2234 – Organizational Behavior **3**

Previously BA 233 (Prerequisite: HT 1101 or BA 1133; ENG 1101 or BA 1121; or department approval)

Covers the fundamentals of human behavior within business organizations, organizational relationships and communication processes that affect motivation and human behavior.

BA 2235 – International Management **3**

Previously IB 2102 (Prerequisite: BA 1101 or BA 1103 or BA 1133 or department approval)

Focuses on developing a student's understanding and application of skills used in managing cross-cultural differences when conducting business with people of different cultures in a global setting.

BA 2236 – Retail Management 3

Previously BA 251 (Pre- or corequisite: BA 2222 or department approval)

Focuses on the changing demographics of retail marketing, the growth of new retail formats and the use of information technology to enable quick response to market dynamics through customer service, vendor-retailer partnering and employee diversity.

BA 2238 – Human Resource Management 3

Previously BA 236 (Prerequisite: HT 1101 or BA 1133; ENG 1101 or BA 1121; or department approval)

Focuses on the role of human resource management in relation to organizational requirements. Topics include human resource management, employee staffing, compensation and benefits, labor relations, Equal Employment Opportunity, affirmative action, training and development and other related topics.

BA 2240 – Business Law 3

Previously BA 211 (Recommended prerequisite: BA 1101)

Provides an overview of the legal system and an introduction to common legal principles. The course focuses on topics particularly relevant to business, including the legal system, torts, contracts, product liability and agency. The course will assist students in identifying and understanding the sources of liability and strategies to minimize legal risk.

BA 2242 – Employment Law for Business 3

Previously BA 230 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Presents law and employment decisions from a managerial perspective. Areas covered include the employment relationship, discrimination in employment, the employment environment and other forms of regulation.

BA 2244 – Legal Issues in E-Commerce 3

Previously ECM 2235 (Prerequisite: BA 1115 or department approval. Recommended prerequisite: BA 1015)

Focuses on current legal issues for businesses that use the Internet. This course is intended for the business owner or professional that needs to understand the concepts and current issues involved in e-commerce. Major legal issues such as taxation, intellectual property, privacy, copyrights, trademarks and jurisdiction are discussed.

BA 2270 – Real Estate Law 3

Previously BA 270

Focuses on the fiduciary relationship between real estate agent and client, ownership rights, law of agency and law of contracts. Course has been certified to earn 30 hours of credit toward the New Mexico Real Estate Broker's License Exam.

BA 2271 – Real Estate Principles and Practice 3

Previously BA 271 (Recommended prerequisite: BA 2270)

Covers the real estate market, real property ownership and interest, deeds and descriptions, property transfer, contracts, finance and appraising. Course has been certified to earn 30 hours of credit toward the New Mexico Real Estate Broker's License Exam.

BA 2272 – Basic Appraisal Principles 3

Previously BA 272 (Recommended prerequisite: BA 2271)

Provides an overview of real property concepts and characteristics, legal considerations, value influences, real estate finance, types of value, economic principles, real estate markets and analysis and ethics in appraisal.

BA 2273 – Real Estate Finance 3

Previously BA 273 (Recommended prerequisite: BA 2271)

Focuses on financing real property, money markets and sources of mortgage money, financial leverage, value of existing mortgage in the current market and purchaser qualification.

Course Subject Code/Course Number – Course Name Credit Hours

BA 2274 – Real Estate Investment 3

Previously BA 274 (Recommended prerequisite: BA 2270 +BA 2271)

Introduces the principles for investment decisions, assessment of property potential and an awareness of the marketplace and the needs of the public.

BA 2275 – Broker Basics 3

Previously BA 285 (Prerequisite: BA 2270 + BA 2271; or department approval)

Covers the establishment of a real estate office, agency relationships and law, signage, brokers' duties, trade names, listing and purchasing agreements, common forms, property management and trusteeship/trust accounts. Course has been certified to earn 30 hours of credit toward the New Mexico Real Estate Brokers License Exam.

BA 2278 – Property Management 3

Previously BA 275

Explores residential and commercial property management, marketing of services, market analysis, record keeping, related laws, legal documents, property maintenance, employee relations, insurance, security and administration.

BA 2279 – The National Uniform Standards of Professional Appraisal Practice 2

Previously BA 279 (Pre-or corequisite: BA 2272 or department approval)

Focuses on the requirements for ethical behavior and competent performance by appraisers. The role of the appraiser is emphasized and the implied impartiality often associated with this role is examined. The special responsibilities of the appraiser with regard to implied impartiality are explored in detail.

BA 2280 – Real Estate Appraisal Procedures 3

Previously BA 282 (Prerequisite: BA 2272 or department approval)

Provides an overview of real estate appraisal concepts and procedures, approaches to valuation, property description, residential applications, residential construction, appraisal math, application of depreciation, paired sales and adjustments. Market value and analyses, inspection, appraisal and appraisal reports are covered.

BA 2281 – Ethics in Business 3

Previously BA 234 (Prerequisite: BA 1101 or BA 1133; BA 1121 or ENG 1101; or department approval)

Focuses on the identification, analysis and practical resolution of ethical issues that managers and business leaders face in the workplace with particular emphasis on the role of business managers and leaders in establishing and maintaining the ethical culture of a business. Case studies and real life problems are used to develop a framework and strategy to make practical decisions.

BA 2282 – Leadership and Group Dynamics 3

Previously BA 238 (Prerequisite: BA 1131 or BA 2234; BA 1121 or ENG 1101; or department approval)

Focuses on the development of leadership skills. Course is designed to provide the basic steps in leadership and group dynamics to help individuals develop a personal philosophy of leadership and the moral and ethical responsibilities of leadership.

BA 2284 – Strategic Management 3

Previously BA 289 (Prerequisite: BA 1101 or BA 1133; BA 1121 or ENG 1101; or department approval)

Explores strategic management activities undertaken by the leadership of a business organization and focuses on the integration of ethics, sustainability, globalization and technology in planning, implementing and evaluating different strategies. Examining the external and internal environments, students will analyze and apply problem-solving skills to situations that affect business operations.

BA 2999 – Capstone Course **1**

Previously BA 295 (Prerequisite: ACCT 2101 + ACCT 2420; or BA 2222 + BA 2240; or BGC 2020 + BGC 2040; or FIN 1310 + FIN 2210; or OTEC 2231 + OTEC 2260; or HT 2141 + HT 1161)

Focuses on assessment of exit competencies for program of study and assessment of CNM's core competencies. (Taken in student's last term)

BGC – Business Graphics Courses School of Business & Information Technology

BGC 1096, 1196...1996 – Special Topics **1-3**

(all courses ending in 96 are topics courses)

Previously BCG 296

Explores current topics in business graphics and communication.

BGC 2010 – Introduction to Digital Publishing **3**

Previously BGC 200 (Prerequisite: IT 1010)

Introduces students to computing on a Mac, professional graphics software, design concepts and visual literacy skills. (30 theory + 45 lab hours per term)

BGC 2015 – Advanced Digital Publishing **3**

Previously BGC 201 (Prerequisite: BGC 2010)

Explores design layout with professional software. Presents design concepts, introduction to typography, print production terminology and graphic design history. (30 theory + 45 lab hours per term)

BGC 2020 – Digital Drawing **3**

Previously BGC 202 (Prerequisite: BGC 2010. Recommended prerequisite: CIS 2355)

Examine and practice vector-based illustration. Skills are taught as they relate to a production and PDF workflow. Advanced typography and color theory. (30 theory + 45 lab hours per term)

BGC 2030 – Production Photoshop **3**

Previously BGC 203 (Prerequisite: BGC 2010; Recommended prerequisite: CIS 1330 + BGC 2015 + BGC 2020)

Discover print production skills using Photoshop for the practical aspects of halftone and separation production including color models, dot gain, linescreen, other production techniques and graphics for the Web. (30 theory + 45 lab hours per term)

BGC 2040 – Digital Printing Production **3**

Previously BGC 204 (Prerequisite: BGC 2015 + BGC 2020. Pre- or corequisite: BGC 2030)

Learn pre-press, pre-flight and the practical aspects of print production, plus advanced layout and the development of a professional portfolio. (30 theory + 45 lab hours per term)

BGC 2095 – Cooperative Education **4**

Previously BGC 299 (Prerequisite: BGC 2015 + BGC 2020 + BGC 2030 + department approval)

Provides students the opportunity to work a minimum of 150 hours in a new office-related position. Student trainees are paid by the cooperating firm and supervised jointly by CNM and the employer. The student and employer determine the weekly contact hours.

BGC 2096, 2196...2996 – Special Topics **1–3**

(all courses ending in 96 are topics courses)

Previously BCG 296

Explores current topics in business graphics and communication.

Course Subject Code/Course Number – Course Name Credit Hours

BGC 2097 – Independent Study **3**

Previously BCG 297 (Prerequisite: department approval)

Allows student and instructor to define a specific problem in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to the problem. An oral presentation may be required.

BGC 2098 – Internship **4**

Previously BGC 298 (Prerequisite: BGC 2015 + BGC 2020 + BGC 2030 + department approval)

Provides students the opportunity to work a minimum of 150 hours at office-related supervised workstations. Students are not paid for their work but are supervised jointly by CNM and the employer. The student and employer determine the weekly contact hours.

BIO – Biology Courses School of Adult & General Education

BIO 0196, 0296…0996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

BIO 0950 – Introduction to Biology **3**

Previously BIO 100 (Prerequisite: MATH 0750 + RDG 0750; or appropriate placement scores, see page 12. Recommended prerequisite: RDG 0950)

Explores basic topics such as characteristics of life, biological molecules, cells, anatomy and classification, while developing a sense of scale, observation and diagramming skills, familiarity with the microscope, reading and note taking skills. Complements, but does not replace, CHEM 0950. (45 theory + 15 lab hours per term)

BIO – Biology Courses School of Math, Science & Engineering

BIO 1010 – Biology for Non-Majors **3**

Previously BIO 110 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Emphasizes biological principles and current topics for non-biologists or liberal arts students: cellular and molecular biology, microbiology, human genetics, ecology, complexity theory and animal behavior.

BIO 1092 – Biology for Non-Majors Laboratory **1**

Previously BIO 112L (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Pre- or corequisite: BIO 1010)

Provides in optional laboratory setting lab the use of microscopes, culturing bacteria, chemical analysis of biomolecules, plant and animal behavior. (45 lab hours per term)

BIO 1096, 1196...1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

BIO 1110 – Environmental Science **3**

Previously BIO 111 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents an academic study of the environment, including basic ecology, a comparison of scientific approaches and world views with respect to ecology and the environment, relationship of humans to the environment and solutions to local, regional and global environmental problems.

BIO 1192 – Environmental Science Laboratory **1**

Previously BIO 111L (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Investigates in optional laboratory setting the principles discussed in BIO 1110; emphasizes analysis of water, soil and air pollutants. Moderately strenuous field trips to special interest sites may be scheduled outside regular laboratory hours. (45 lab hours per term)

BIO 1210/1292 – Southwestern Natural History 4

Previously BIO 224/224L (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents in lecture and labs or field trips (one or more overnight) the natural history and identification of southwestern flora and fauna. (45 theory + 45 lab hours per term)

BIO 1310 – Human Anatomy and Physiology for Non-Majors 3

Previously BIO 136 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: BIO 0950 or CHEM 0950)

Examines the structure (anatomy) and function (physiology) of the human body. Investigates molecular, cellular, tissue and organ levels and study of organ systems. Course available online.

BIO 1392 – Human Anatomy and Physiology for Non-Majors Laboratory 1

Previously BIO 139L (Pre- or corequisite: BIO 1310)

Introduces lab exercises, which complement concepts presented in BIO 1310, including histological study, biochemical processes, mammal organ dissections and use of models to illustrate anatomical arrangement. Course available online. (45 lab hours per term)

BIO 1410 – Biology for Health Sciences 3

Previously BIO 123 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: CHEM 1410 or BIO 0950 or CHEM 0950)

Presents principles of cell biology, cell chemistry, genetics and organismic biology with an emphasis on human systems.

BIO 1492 – Biology for Health Sciences Laboratory 1

Previously BIO 124L (Prerequisite: MATH 0750 or appropriate placement scores, see page 12. Pre- or corequisite: BIO 1410)

Introduces exercises and demonstrations related to cell biology, biochemical processes and genetics. (45 lab hours per term)

BIO 1510/1592 – Molecular and Cell Biology 4

Previously BIO 201/201L (Pre- or corequisite: CHEM 1710 + CHEM 1792)

Introduces a number of related cell biology topics. The scientific method, the role of water in cell biology, diversity of organic molecules and macromolecules, introduction to metabolism, cellular respiration and photosynthesis, cell structure and functions, cell communication and the cell cycle. (45 theory + 45 lab hours per term)

BIO 1610/1692 – Genetics 4

Previously BIO 202/202L (Prerequisite: BIO 1510/1592. Pre- or corequisite: CHEM 1810 + CHEM 1892)

Builds upon concepts presented in Bio 1510/1592 to explore a wide range of materials related to genetics. Mitosis, meiosis, Mendelian genetics, chromosomal inheritance, molecular inheritance, replication, transcription and translation, genetics of viruses, bacteria and eukaryotes, genomics, developmental genetics and human genetics. (45 theory + 45 lab hours per term)

BIO 2096, 2196...2996 – Special Topics 3

(all courses ending in 96 are topics courses)

Previously BIO 296 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents various topics. See *Schedule of Classes*.

BIO 2110 – Microbiology 3

Previously BIO 239 (Prerequisite: BIO 1410/1492 or pre-or corequisite of BIO 1610/1692; CHEM 1410/1492 or CHEM 1710/1792; or a passing score of 64 on the Biology Placement Exam. Pre- or corequisite: BIO 2192)

Introduces concepts of microbiology, host-parasite relationships, infection and immunity.

Course Subject Code/Course Number – Course Name Credit Hours

BIO 2192 – Microbiology Laboratory 1

Previously BIO 239L (Prerequisite: BIO 1410/1492 or pre- or corequisite of BIO 1610/1692; CHEM 1410/1492 or CHEM 1710/1792; or a passing score of 64 on the Biology Placement Exam. Pre- or corequisite: BIO 2110)

Investigates a variety of techniques designed to facilitate the growth, identification and control of microorganisms. (45 lab hours per term)

BIO 2210 – Human Anatomy and Physiology I 3

Previously BIO 237 (Prerequisite: BIO 1410/1492 or pre- or corequisite of BIO 1610/1692; CHEM 1410/1492 or CHEM 1710/1792; or a passing score of 64 on the Biology Placement Exam. Pre- or corequisite: BIO 2292)

Presents integrated study of human structure and function covering the integumentary, skeletal, muscular and nervous systems.

BIO 2292 – Human Anatomy and Physiology I Laboratory 1

Previously BIO 237L (Prerequisite: BIO 1410/1492 or pre- or corequisite of BIO 1610/1692; CHEM 1410/1492 or CHEM 1710/1792; or a passing score of 64 on the Biology Placement Exam. Pre- or corequisite: BIO 2210)

Introduces lab exercises in anatomy and physiology, which complement topics covered in BIO 2210, including specimen dissection and cadaver study. (45 lab hours per term)

BIO 2310 – Human Anatomy and Physiology II 3

Previously BIO 238 (Prerequisite: BIO 2210)

Continues course of study begun in BIO 2210, covering structure and function of the cardiovascular, respiratory, digestive, urinary, reproductive and endocrine systems.

BIO 2392 – Human Anatomy and Physiology II Laboratory 1

Previously BIO 248L (Prerequisite: BIO 2292. Pre- or corequisite: BIO 2310)

Provides lab exercises in anatomy and physiology, which complement BIO 2210, including specimen dissection and cadaver study. (45 lab hours per term)

BIO 2410/2492 – Ecology and Evolution 4

Previously BIO 203/203L (Prerequisite: BIO1510/1592 + BIO 1610/1692. Pre- or corequisite: MATH 1710 or MATH 1460)

Presents various topics associated with the principles of ecology and evolutionary biology. Darwinian principles, origin theory, the fossil record and patterns of diversification of ancient life, evolution of populations, speciation, phylogenetics, basics of ecology and study of the biosphere, behavioral ecology, population ecology, community ecology, ecosystem ecology and conservation biology. (45 theory + 45 lab hours per term)

BIO 2510/2592 – Plant and Animal Form and Function 4

Previously BIO 204/204L (Prerequisite: BIO1510/1592 + BIO 1610/1692)

Focuses on comparative botany and zoology. Topics covered are plant structure and growth, transport, nutrition, reproduction and development in plants. Introduction to animal form and function, animal nutrition, circulation and gas exchange, immune system function and evolution, control of the internal environment, chemical signaling, reproduction and development, nervous systems, sensory and motor mechanisms. (45 theory + 45 lab hours per term)

BIO 2710 – Pathophysiology I 3

Previously BIO 240 (Prerequisite: BIO 2210 + BIO 2310 + BIO 2110 + BIO 2192)

Focuses on building a basic understanding of pathophysiology for health science students. Presents diseases of the circulatory, nervous, musculoskeletal and dermal systems.

BIO 2711 – Pathophysiology II 3

Previously BIO 241(Prerequisite: BIO 2710)

Continues course of study begun in BIO 2710, covering pathology of cardiovascular, pulmonary, gastrointestinal, urinary and endocrine systems.

BIOT – Biotechnology Courses School of Math, Science & Engineering

BIOT 1005 – Math for the Biotechnology Laboratory 3
Previously BIOT 170

Provides a review of common math manipulations used in a bioscience laboratory. Students apply concepts including exponents, scientific notation, logarithms, unit conversion, equations, percents, concentration and dilutions to routine laboratory applications.

BIOT 1010 – Introduction to Biotechnology 2
Previously BIOT 164A
Introduces the field of biotechnology and the biotechnology laboratory. Explores current issues, techniques and topics related to biotechnology, including career opportunities. Review, discussion and presentation of the social, medical and ethical considerations of biotechnology will also be covered.

BIOT 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)
Presents various topics. See *Schedule of Classes*.

BIOT 1210/1270 – Biotechnology Laboratory Techniques I 4
Previously BIOT 263/263L (Prerequisite: department approval + BIOT 1010. Pre- or corequisite: BIO 1510/1592 + CHEM 2210. Corequisite: BIOT 1211 + BIOT 1005)

Presents theory of laboratory safety, documentation and GLP (good laboratory practices).Techniques include laboratory measurement and solutions, bacterial cloning, recombinant DNA and tissue culture. (45 theory + 45 lab hours per term)

BIOT 1211 – Biotechnology Seminar II 1
Previously BIOT 164B (Recommended prerequisite: BIOT 1010. Corequisite: BIOT 1210/1270)

Continues topics presented in BIOT 1010. Current issues and topics related to biotechnology will be explored. Current literature will be read, reviewed and discussed. (15 theory hours)

BIOT 1510/1570 – Biotechnology Laboratory Techniques II 5
Previously BIOT 264/264L (Prerequisite: BIOT 1210/1270. Pre- or corequisite: BIO 1610/1692 + BIO 2110/BIO 2192 + PHIL 2247. Corequisite: BIOT 1512)

Provides experience with various research/manufacturing tools and protocols used to characterize and manipulate nucleic acids. Techniques include tissue culture, PCR, RT-PCR, gel electrophoresis, recombinant DNA technology, cloning and sequencing. (45 theory + 90 lab hours per term)

BIOT 1512 – Biotechnology Seminar III 1
Previously BIOT 164C (Prerequisite: BIOT 1211. Corequisite: BIOT 1510/1570)

Continues topics presented in BIOT 1211. Current issues and topics related to biotechnology will be explored. Current literature will be read, reviewed and discussed.

BIOT 2096, 2196...2996 –Special Topics 1-6
(all courses ending in 96 are topics courses)
Previously BIOT 296
Explore various topics of interest in the field of Biotechnology.

BIOT 2098 – Internship 8
Previously BIOT 298 (Prerequisite: BIOT 2410/2470 and BIOT 2475 + department approval. Corequisite: BIOT 2810)

Provides an internship with a research or manufacturing laboratory. Internship locations vary based upon availability and student interests. This course will provide the student with actual work experience prior to graduation. (315 internship hours and 45 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

BIOT 2410/2470 – Biotechnology Laboratory Techniques III 5
Previously BIOT 265/265L (Prerequisite: BIOT 1510/1570. Corequisite: BIOT 2413 + BIOT 2475)

Applies concepts and techniques begun in 1510/1570 to the characterization of proteins. Techniques include protein isolation, polyacrylamide gel electrophoresis, isoelectric focusing, 2-D gel analysis, ELISAs, recombinant protein purification and column chromatography. Students will also prepare for a cumulative final exam. (45 theory + 90 lab hours per term)

BIOT 2413 – Biotechnology Seminar IV 1
Previously BIOT 164D (Prerequisite: BIOT 1512. Corequisite: BIOT 2410/2470 + BIOT 2475)

Continues topics presented in BIOT 1512. Current issues and topics related to biotechnology will be explored. Current literature will be read, reviewed and discussed.

BIOT 2475 – Bioinformatics and Proteomics 3
Previously BIOT 274L (Prerequisite: BIOT 1510/1570. Pre- or corequisite: IT 1010 + MATH 1330. Corequisite: BIOT 2413 + BIOT 2410/2470)

Introduces the data management systems associated with DNA and protein information gathering, organization and retrieval. Extensive use of internet resources, search protocols and data analysis. (30 theory + 45 lab hours per term)

BIOT 2810 – Biotechnology Seminar 2
Previously BIOT 280 (Prerequisite: BIOT 2475. Corequisite: BIOT 2098)

Provides a capstone experience for students preparing for employment in the biotechnology industry. Topics will include preparation of a written and oral presentation summarizing internship accomplishments.

BT – Building Trades Courses School of Applied Technologies

BT 1005 – Remodeling 3
Previously BT 178

Introduces hand and power tools and the safety measures associated with their use. OSHA regulations and job safety. Provides basic structural, electrical, plumbing and other typical remodeling repair principles and techniques. (15 theory + 75 lab hours per term)

BT 1010 – Advanced Remodeling 3
Previously BT 179 (Prerequisite: BT 1005 or department approval)

Provides information on job site safety, OSHA regulations, design and construction techniques for remodeling and additions to existing buildings. (15 theory + 75 lab hours per term)

BT 1092 – Metal Framing 2
Previously BT 177L

Introduces commercial and residential construction design, Uniform Building Code requirements, job site and tool safety and erection of metal buildings. (75 lab hours per term)

BT 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)
Presents various topics. See *Schedule of Classes*.

CAD – Computer Assisted Drafting Courses School of Applied Technologies

CAD 1001 – Basics of CAD 1
(Prerequisite: IT 1010)

Introduces the fundamentals of computer aided drafting. (10 theory + 15 lab hours per term)

CAD 1003 – CAD for Landscaping 1
(Recommended prerequisite: IT 1010 + CAD 1001)

Introduces the application of computer aided drafting for Landscaping Architecture. (10 theory + 15 lab hours per term)

CAD 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

CARP – Carpentry Courses School of Applied Technologies

CARP 1005 – Carpentry Blueprint Reading I 4
Previously CARP 101 (Prerequisite: MATH 0550 or appropriate placement scores, see page 12; or department approval)

Covers lumber sizing, scaling, centering and triangle theory, interpretation of elevation drawings, floor plans, symbols, notations, dimensions and structural information.

CARP 1010 – Introduction to Carpentry 1
Previously CARP 121 (Prerequisite: MATH 0550 or appropriate placement scores, see page 12; or department approval)

Introduces students to the construction trade and demonstrates the correct and safe use of hand and power tools commonly used in the construction trades.

CARP 1015 – Structural Systems I 1
Previously CARP 122 (Pre- or corequisite: CARP 1005 or department approval)

Explains concrete and concrete reinforcing materials, foundations and flatwork, concrete forms and handling and finishing concrete.

CARP 1020 – Structural Systems II 1
Previously CARP 123 (Pre- or corequisite: CARP 1005 or department approval)

Explains floor framing systems, wall, ceiling, stair and roof framing and the installation of exterior doors and windows.

CARP 1092 – Construction Lab A 2
Previously CARP 124A (Pre- or corequisite: CARP 1005 + CARP 1010; or department approval)

Provides beginning carpentry students with practical, hands-on learning experience by taking advantage of building opportunities on and off campus. (75 lab hours per term)

CARP 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

CARP 1192 – Construction Lab B 2
Previously CARP 124B (Pre- or corequisite: CARP 1005 + CARP 1010; or department approval)

Provides beginning carpentry students with additional practical, hands-on learning experience by taking advantage of building opportunities on and off campus. (75 lab hours per term)

CARP 1292 – Construction Lab C 2
Previously CARP 124C (Pre- or corequisite: CARP 1005 + CARP 1010; or department approval)

Provides beginning carpentry students with additional practical, hands-on learning experience by taking advantage of building opportunities on and off campus. (75 lab hours per term)

CARP 1305 – Furniture Making 3
Previously CARP 126

Covers fundamental design and construction of simple furniture including safety and use of hand and power tools. Includes designing and constructing a furniture project. (15 theory + 75 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

CARP 1310 – Advanced Furniture Making 3
Previously CARP 127

Covers advanced design and construction of simple furniture including safety and use of hand and power tools. Includes designing and constructing a furniture project. (15 theory + 75 lab hours per term)

CARP 1315 – Cabinetmaking 3
Previously CARP 128

Fundamentals of cabinet construction. Emphasis is on safety and use of tools. European construction is emphasized. (15 theory + 75 lab hours per term)

CARP 1320 – Carpentry Fundamentals 3
Previously CARP 170

Covers safety and use of hand and power tools. Includes designing a project, estimating bills for materials, building and completing the project are covered. (15 theory + 90 lab hours per term)

CARP 1325 – Construction Trades Blueprint Reading 3
Previously CARP 171

Focuses on reading and interpreting blueprints with emphasis on terminology, symbols, notations, scaling, dimensioning and drawing techniques. Reviews construction methods, materials, calculations for material take-off and estimates.

CARP 1330 – Manufactured Housing Set-Up 1
Previously CARP 172

Provides instruction in manufactured housing carpentry work, set-up, leveling and blocking to satisfy NMMHD industry standards. Work practices and safety are emphasized.

CARP 2005 – Carpentry Blueprint Reading II 4
Previously CARP 111 (Prerequisite: CARP 1005 or department approval)

Introduces blueprint applications for residential homes, multiple family dwellings and commercial buildings, along with material estimating and volume measure.

CARP 2010 – Exterior Finishes 1
Previously CARP 131 (Pre- or corequisite: CARP 2005 or department approval)

Introduces common materials and methods used for thermal and moisture protection, exterior siding and roofing.

CARP 2015 – Interior Finishes I 1
Previously CARP 132 (Pre- or corequisite: CARP 2005 or department approval)

Introduces metal framing for interior walls, drywall installation and finishing.

CARP 2020 – Interior Finishes II 1
Previously CARP 133 (Pre- or corequisite: CARP 2005 or department approval)

Introduces the installation of doors, windows, flooring, ceiling trim and cabinet installation.

CARP 2092 – Construction Lab A 2
Previously CARP 134A (Pre- or corequisite: CARP 2005 + CARP 1010; or department approval)

Provides advanced carpentry students with additional practical, hands-on learning experience by taking advantage of building opportunities on and off campus. (75 lab hours per term)

CARP 2096, 2196...2996 – Special Topics 1–6
(all courses ending in 96 are topics courses)
Previously CARP 296

Provides an in-depth study of methods and advanced techniques.

CARP 2192 – Construction Lab B **2**

Previously CARP 134B (Pre- or corequisite: CARP 2005 + CARP 1010; or department approval)

Provides advanced carpentry students with additional practical, hands-on learning experience by taking advantage of building opportunities on and off campus. (75 lab hours per term)

CARP 2292 – Construction Lab C **2**

Previously CARP 134C (Pre- or corequisite: CARP 2005 + CARP 1010; or department approval)

Provides advanced carpentry students with additional practical, hands-on learning experience by taking advantage of building opportunities on and off campus. (75 lab hours per term)

CARP 2997 – Independent Study **Variable**

Previously CARP 297 (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

CARP 2999 – Carpentry Capstone Course **1**

Previously CARP 295 (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. (Taken during student's last term).

CCAP – Commercial Carpentry Apprenticeship School of Applied Technologies

CCAP 1115 – Commercial Carpentry Apprenticeship **5-7**

Previously CCAP 198A (Prerequisite: current full-time employment in the carpentry industry or department approval)

Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, commercial carpentry process for shop tools and equipment, supplies and materials, building systems, blueprint reading, concrete, specifications and code interpretation.

CCAP 1125 – Commercial Carpentry Apprenticeship **5-7**

Previously CCAP 198B (Prerequisite: current full-time employment in the carpentry industry or department approval)

Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, commercial carpentry process for shop tools and equipment, supplies and materials, building systems, blueprint reading, concrete, specifications and code interpretation.

CCAP 1215 – Commercial Carpentry Apprenticeship **5-7**

Previously CCAP 198C (Prerequisite: current full-time employment in the carpentry industry or department approval)

Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, commercial carpentry process for shop tools and equipment, supplies and materials, building systems, blueprint reading, concrete, specifications and code interpretation.

CCAP 1225 – Commercial Carpentry Apprenticeship **5-7**

Previously CCAP 198D (Prerequisite: current full-time employment in the carpentry industry or department approval)

Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, commercial carpentry process for shop tools and equipment, supplies and materials, building systems, blueprint reading, concrete, specifications and code interpretation.

CCAP 1315 – Commercial Carpentry Apprenticeship **5-7**

Previously CCAP 198E (Prerequisite: current full-time employment in the carpentry industry or department approval)

Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, commercial carpentry process for shop tools and equipment, supplies and materials, building systems, blueprint reading, concrete, specifications and code interpretation.

Course Subject Code/Course Number – Course Name Credit Hours

CCAP 1325 – Commercial Carpentry Apprenticeship **5-7**

Previously CCAP 198F (Prerequisite: current full-time employment in the carpentry industry or department approval)

Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, commercial carpentry process for shop tools and equipment, supplies and materials, building systems, blueprint reading, concrete, specifications and code interpretation.

CCAP 1415 – Commercial Carpentry Apprenticeship **5-7**

Previously CCAP 198G (Prerequisite: current full-time employment in the carpentry industry or department approval)

Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, commercial carpentry process for shop tools and equipment, supplies and materials, building systems, blueprint reading, concrete, specifications and code interpretation.

CCAP 1425 – Commercial Carpentry Apprenticeship **5-7**

Previously CCAP 198H (Prerequisite: current full-time employment in the carpentry industry or department approval)

Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, commercial carpentry process for shop tools and equipment, supplies and materials, building systems, blueprint reading, concrete, specifications and code interpretation.

CDV – Child, Youth & Family Development Courses School of Communication, Humanities & Social Sciences

CDV 1020 – 45-Hour Entry-level Course **3**

Previously CDV 120B

Assists entry-level early care, education and family support individuals to advance their understanding and practice in the seven competency areas as defined by the state of New Mexico. Provides opportunities for students to construct knowledge about children, families, communities and support systems through discussion, reflection and skill practice. Does not require a high school diploma or GED.

CDV 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*

CDV 1101 – Parents and Young Children **3**

Previously CDV 101

Examines interactions of parents and children and diverse family configurations throughout the life cycle.

CDV 1103 – Preschool Growth and Development **3**

Previously CDV 103 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Examines the cognitive, physical and social/emotional development of the preschool child. Requires observations in appropriate settings.

CDV 1107 – Art and Play **3**

Previously CDV 107 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Focuses on the importance of play and art in the development of children. Introduces basic analysis techniques.

CDV 1120 – Introduction to CDA Training **2**

Previously CDV 120 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Examines the history of CDA, the assessment system and competency standards. Reviews the six competency and 13 functional areas as well as what is needed to complete the CDA through the direct assessment route. Presents clarification of the steps involved in preparation for CDA assessment.

CDV 1190 – Supervised Field Experience 3
Previously CDV 124 (Prerequisite: CDV 1020 + CVD 1120; or appropriate placement scores, see page 12)

Required practicum experience for CDA candidates in process of completing the Formal Assessment. Requires working with children in one of four settings: Infant Toddler, Preschool, Home Visitor, or Family Home Provider Setting, including bilingual programs at any of the levels, 0-5 years. Assigned advisors will observe and evaluate students in one of the above licensed settings. Continued enrollment in Field Experience is allowed until the Formal Assessment requirements are completed. (90 hours per term)

CDV 1890 – Family Studies Practicum I 2
Previously CDV 108C (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Demonstrates skills and competencies as indicated in coursework/objectives. Provides practical experiences in an approved FS, ECME, or community setting in working with families and children from birth to age 36 months. (60 hours per term)

CDV 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
Previously CDV 296

Offers special topics in the field as elective hours. See *Schedule of Classes*.

CDV 2201 – Middle Childhood Growth and Development 3
Previously CDV 201 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Presents the principles of growth and development for 6 to 11-year-old children in cognitive, physical and social-emotional areas.

CDV 2202 – Adolescent Growth and Development 3
Previously CDV 202 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Examines the development and communication patterns of adolescents within the family setting.

CDV 2210 – Introduction to Social Work 3
(Prerequisite: RDG 0950 + ENG 0950)

Introduces students to the social work profession's values, ethics, fields of practice and settings. Highlights the profession's commitment to diverse and at-risk populations and social/economic justice.

CDV 2212 – Special Issues in Child and Family Development 3
Previously CDV 212 (Prerequisite: Must be in final term or department approval; summer and fall graduates may enroll in spring term)

An exit seminar that presents a balance of research findings, theory and application. Focuses on critical contemporary issues in the field.

CDV 2218 – Strengthening Family Structures 3
Previously CDV 218 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Examines families from a structural perspective by being exposed to systems thinking. Explores how families are similar to and different from others in society, including biological and social systems. Studies and encourages the practice of a strength-based perspective.

CDV 2219 – Marriages and Families 3
Previously CDV 219 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Provides insights into contemporary marriage and family situations. Focuses on decision-making for better understanding of families and the broader society.

CDV 2297 – Independent Study 1-3
Previously known as CDV 297 (Prerequisite: department approval)

Defines and studies a specific problem while working with the instructor.

Course Subject Code/Course Number – Course Name Credit Hours

CDV 2299 – Cooperative Education 1-3
Previously CDV 299 (Prerequisite: department approval)

Works for one term on a cooperative (paid) basis in an appropriate training program with local employers.

CDV 2890 – CYFD Practicum 2
Previously CDV 208C (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12)

Provides practical experiences in approved social work and/or closely related settings. (45 hours per term). (1 lecture/1 1ab)

CHEM – Chemistry Courses School of Adult & General Education

CHEM 0196, 0296…0996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

CHEM 0950 – Basics of Chemistry 3
Previously CHEM 100 (Prerequisite: MATH 0750 or appropriate placement scores, see page 12. Recommended prerequisite: MATH 0930)

Focuses on the study of chemistry: the periodic table, chemical bonds and reactions, solutions and energy. Integrates applied math (metric system, unit analysis, significant figures), reading academic text and study skills. Provides essential background for CHEM 1410, BIO 1410 and BIO 1310. (45 theory + 15 lab hours per term)

CHEM – Chemistry Courses School of Math, Science & Engineering

CHEM 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

CHEM 1410 – Introduction to Chemistry 3
Previously CHEM 111 (Prerequisite: RDG 0950 + MATH 0930; or appropriate placement scores, see page 12. Corequisite: CHEM 1492.)

Introduces qualitative and quantitative aspects of general chemistry: atomic and molecular structure, periodic table, acids and bases, mass relationships, solutions and brief introduction to organic chemistry.

CHEM 1492 – Introduction to Chemistry Laboratory 1
Previously CHEM 112L (Pre- or corequisite: CHEM 1410)

Introduces experiments complementing CHEM 1410. (45 lab hours per term)

CHEM 1710 – General Chemistry I 3
Previously the lecture portion of CHEM 1510/1592 (Prerequisite: RDG 0950 + MATH 1310 or appropriate placement scores, see page 12. Pre- or corequisite: CHEM 1792)

First term of a two-term sequence for students in sciences, engineering and many health occupations. Introduces atomic and molecular structure, chemical periodicity, mass and energy relationships and chemical reactions.

CHEM 1792 – General Chemistry I Lab 1
Previously the lab portion of CHEM 1510/1592 (Prerequisite: RDG 0950 + MATH 1310; or appropriate placement scores, see page 12. Pre- or corequisite: CHEM 1710)

A three-hour per week laboratory class containing experiments complementing the CHEM 1710 lecture class. (45 lab hours per term)

CHEM 1810 – General Chemistry II 3
Previously the lecture portion of CHEM 1610/1692 (Prerequisite: CHEM 1710 within the past 3 years + CHEM 1792 within the past 3 years + MATH 1315. Pre- or corequisite: CHEM 1892)

Emphasizes acids and bases, equilibrium, kinetics, thermodynamics, solubility, electro- and nuclear chemistry. Introduces coordination and organic chemistry.

CHEM 1892 – General Chemistry II Lab **1**

Previously the lab portion of CHEM 1610/1692 (Prerequisite: CHEM 1710 within the past 3 years, CHEM 1792 within the past 3 years + MATH 1315. Pre- or corequisite: CHEM 1810)

A three-hour per week laboratory class containing experiments complementing the CHEM 1810 lecture class. (45 lab hours per term)

CHEM 2096, 2196...2996 – Special Topics **3**

(all courses ending in 96 are topics courses)

Previously CHEM 296 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents various topics. See *Schedule of Classes*. Recommended for entry-level students. (45 theory + 15 lab hours per term)

CHEM 2210 – Organic Chemistry and Biochemistry **4**

Previously CHEM 212 (Prerequisite: CHEM 1410/1492 or CHEM 1710/1792)

Introduces organic and biochemistry for students in health or environmental occupations: survey of organic functional groups including chemistry of living organisms. Emphasis on medical aspects.

CHEM 2710 – Organic Chemistry I **3**

Previously CHEM 291 (Prerequisite: CHEM 1810/1892)

Introduces study of modern organic chemistry including bonding theory, structure and reactivity, physical properties and the reactions of organic compounds. Systematic examination of organic compounds based on their functional groups, including their synthesis and characterization by instrumental methods.

CHEM 2792 – Organic Chemistry I Laboratory **1**

Previously CHEM 293L (Pre- or corequisite: CHEM 2710)

A three-hour per week laboratory class containing experiments complementing the CHEM 2710 lecture class. (45 lab hours per term)

CHEM 2810 – Organic Chemistry II **3**

(Prerequisite: CHEM 2710 + CHEM 2792)

Organic spectroscopic analysis. The chemistry of aromatic hydrocarbons, alcohols and ethers, aldehydes, ketones, carboxylic acids and derivatives, amines, amino acid, carbohydrates and other functional groups. Mechanisms and synthesis.

CHEM 2892 – Organic Chemistry II Laboratory **1**

(Prerequisite: CHEM 2710 + CHEM 2792. Pre- or corequisite: CHEM 2810)

A three-hour laboratory class per week containing experiments complementing the CHEM 2810 lecture class.

CIS – Computer Information Systems Courses School of Business & Information Technology

CIS 1096, 1196...1996 – Special Topics **1-3**

(all courses ending in 96 are topics courses)

Previously CIS 296

Explores current topics in computers.

CIS 1110 – MS Applications and Integration **3**

Previously CIS 105 (Recommended prerequisite: IT 1010)

Extends the fundamental knowledge of Word, Excel, Access and PowerPoint. Incorporates and emphasizes the integration capabilities among the individual applications. (30 theory + 45 lab hours per term)

CIS 1120 – Microsoft Word **3**

Previously CIS 123 (Recommended prerequisite: IT 1010)

Focuses on word processing using Microsoft Word for Windows with emphasis on functions and practical office applications. (30 theory + 45 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

CIS 1125 – Word Fundamentals **1**

Previously CIS 121 (Recommended prerequisite: CIS 1130)

Focuses on creating, editing, enhancing and merging documents. (5 weeks; 10 theory +15 lab hours per term)

CIS 1130 – Windows **1**

Previously CIS 130

Explores basic elements of Windows with emphasis on software functions. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1140 – PowerPoint Fundamentals **1**

Previously CIS 140 (Recommended prerequisite: 25 wpm typing skill + CIS 1130)

Focuses on basic text charts and graph charts. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1145 – Microsoft PowerPoint **2**

Previously CIS 142 (Recommended prerequisite: IT 1010)

Provides hands-on experience in graphics presentation software, which emphasizes charting, drawing, organizing and displaying text and images. (20 theory + 30 lab hours per term)

CIS 1150 – MS Outlook **1**

Previously CIS 143 (Recommended prerequisite: CIS 1130)

Covers concepts such as managing messages, appointments, contacts and tasks, as well as tracking activities. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1160 – Introduction to Information Management **3**

Previously CIS 147 (Recommended prerequisite: IT 1010)

Provides a broad overview of important topics of information systems that are reviewed from the managerial point of view.

CIS 1170 – Excel Fundamentals **1**

Previously CIS 150 (Recommended prerequisite: 25 wpm typing skill + CIS 1130)

Stresses concepts such as creating, editing and enhancing worksheets, formatting cells, basic formulas and charts. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1171 – Intermediate Excel **1**

Previously CIS 151 (Recommended prerequisite: CIS 1170 or department approval)

Manages multiple worksheets and workbooks, manage data and design forms. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1172 – Advanced Excel **1**

Previously CIS 152 (Recommended prerequisite: CIS 1171 or department approval)

Focuses on creating pivot tables, using advanced data analysis techniques and Excel with other programs. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1173 – Excel Complete, DL Only **3**

Previously CIS 153

This course is offered via distance learning only. Covers Excel software from creating and editing spreadsheets to advanced data analysis tools. This course may substitute for CIS 1170, CIS 1171 and CIS 1172.

CIS 1180 – Access Fundamentals **1**

Previously CIS 155 (Recommended prerequisite: 25 wpm typing skill + CIS 1130)

Focuses on creating database tables, queries, forms and reports. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1181 – Intermediate Access **1**

Previously CIS 156 (Recommended prerequisite: CIS 1180 or department approval)

Covers concepts such as managing data, creating special action queries and tools, adding features to forms and adding hyperlinks to database. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1182 – Advanced Access **1**

Previously CIS 157 (Recommended prerequisite: CIS 1181 or department approval)

Examines concepts such as Access macros, advanced reports, data filters using parameters and sharing databases. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1183 – Access Complete, DL Only **3**

Previously CIS 158

This course is offered via distance learning only. Covers Access software from creating basic databases, macros and advanced design tools in databases. This course may substitute for CIS 1180, CIS 1181 and CIS 1182.

CIS 1185 – Adobe Acrobat **1**

Previously CIS 172 (Prerequisite: IT 1010)

Focuses on how to use Adobe Acrobat to create, save, modify and publish PDF files for electronic access. Additional topics to be covered are sharing PDF files, document security, digital signatures, forms, buttons and searching and extracting images and text from PDF documents. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1187 – FrontPage Complete **2**

Previously CIS 192

Surveys concepts such as planning, creating, publishing and managing websites using MS FrontPage. Develop and publish projects that include text, images, hyperlinks, forms, tables and frames.

CIS 1207 – Programming Logic and Design **3**

Previously CP 107 (Prerequisite: RDG 0950 + MATH 0940; or appropriate placement scores, see page 12. Pre- or corequisite: IT 1010)

This course introduces students to the fundamentals of computer programming, including programming concepts, enforcing good style and logical thinking. The course covers key concepts of structure and the use of pseudocode and flow charts. An overview of programming languages is presented. Students begin the course by coding simple HTML tags and seeing their results in a browser. The students then use JavaScript to learn key language concepts including syntax, variables, program control statements, function calls, mathematical operations and array use. The course also introduces object-oriented concepts. (30 theory + 45 lab hours per term)

CIS 1250 – Introduction to Python **3**

(Prerequisite: CIS1207 or department approval)

Introduces the Python programming language. The course provides a basic overview of the language and includes setting up the Python environment. We cover the various uses of Python, including scripting, classes and objects and building Graphic User Interfaces. Students will research other technical fields where Python scripting is used. Time will be spent building programs using Python's comprehensive standard library. (30 theory + 45 lab hours per term)

CIS 1275 – C++ Programming I **3**

Previously CP 278A (Prerequisite: CIS 1207 or department approval)

Includes structured programming techniques, programming logic and control using C++. Covers data types, variables, arithmetic, control statements, basic functions, pointers, arrays and structures. Object-oriented concepts are presented. Students who have successfully completed similar introductory C++ programming courses, such as those at APS/CEC, may have this course waived and proceed to CIS 2275. (30 theory + 45 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

CIS 1280 – .NET I/C# **3**

(Prerequisite: CIS 1207. Pre- or corequisite CIS1275; or department approval)

Introduces the .NET Framework and the C# development environment within a C# context. Course scope includes C#.NET language syntax and structure, development of C#.NET event driven applications incorporating a graphical user interface and user defined classes and interfaces. Course includes abstract classes and interfaces, stressing inheritance and polymorphism. (30 theory + 45 lab hours per term)

CIS 1284 – .NET I/Visual Basic **3**

Previously CP 284 (Prerequisite: CIS 1207 or department approval)

Introduces the capabilities of the .NET Framework and the Visual Studio development environment within a Visual Basic context. Course scope includes VB.NET language syntax and structure, development of Visual Basic. NET event driven applications incorporating a graphical user interface, .NET Framework and user defined classes and interfaces. Emphasis is on building simple, relevant object-oriented .NET applications. (30 theory + 45 lab hours per term)

CIS 1310 – Introduction to Multimedia **3**

Previously CIS 170 (Recommended prerequisite: IT 1010 + knowledge of Windows)

Explores concepts of how text, graphics, sound, images and video come together in a multimedia program.

CIS 1320 – Digital Sound Processing **1**

Previously CIS 171 (Recommended prerequisite: CIS 1310)

Focuses on integrating and editing sound files for a multimedia program. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1325 – Visual Communication for Business Design **3**

Previously CIS 173

Explores how we see and use visuals to communicate information. Students will develop critical-thinking skills in applying these concepts. Students will apply the concepts with hands-on design projects and media-analysis assignments. These concepts will then be applied to design for advertising, print, multimedia, Web design and 3-D design.

CIS 1330 – PhotoShop **3**

Previously CIS 193 (Prerequisite: IT 1010 or department approval)

Focuses on concepts such as using painting, selections, layers and color correction tools to modify photographic images; using paths, channels, clipping groups, special effects and masks with finer selections; using Web tools such as optimization, slicing images for rollovers and animations, to manipulate images for the web; using color management, monitor calibration and setting up PhotoShop files for two-color and four-color printing. (30 theory + 45 lab hours per term)

CIS 1410 – IT Essentials I: PC Hardware and Software **3**

Previously CP 128 (Pre- or corequisite: IT 1010 or challenge exam)

Covers the fundamentals of computer hardware and software as well as advanced concepts. The basics of computer hardware and Network Operating Systems (NOS) technologies are introduced in a lab-oriented environment. (30 theory + 45 lab hours per term)

CIS 1415 – IT Essentials II: Network Operating Systems 3
Previously CP 183 (Prerequisite: CIS 1410)

This course covers the installation and administration of Network Operating Systems including Microsoft Windows and Linux. Students will be instructed in both lecture and hands-on labs, including server setup, server configuration, basic administration of common networking services and security administration with an emphasis on network communication protocols. Topics include, installation of the Network Operating System, configuration of network services, (i.e. file and print sharing) managing users, remote access, DHCP, FTP, HTTP and managing a network infrastructure. Upon completion of this course, students should be able to install and configure a Network Server environment supporting the preparation for taking the CompTIA Server+ exam. (30 theory + 45 lab hours per term)

CIS 1420 – Introduction to Computer Networking 3
Previously CIS 145 (Recommended prerequisite: IT 1010)

Offers concepts of data communications theory including data communications networking terms, topologies, media, components and applications.

CIS 1425 – Network Topologies/Cisco Academy Semester I 3
Previously CP 182 (Prerequisite: CIS 1410 or department approval)

Introduces building networks and running a network operating system. Uses the OSI model as a guide for study of cabling protocols, data link protocols (Ethernet, FDDI, ATM, etc.) and network protocols (IP and IPX) Introduces switches, bridges, gateways and routers. (30 theory + 45 lab hours per term)

CIS 1513 – Database Design and Introduction to SQL 3
Previously CP 213 (Pre- or corequisite: IT 1010 or department approval)

This course lays the foundation for understanding relational databases and database design. Data modeling concepts and Entity Relationship Diagramming (ERD) are introduced. Students will create Data Models and ERD's from complex business scenarios while building collaboration and problem solving skills. The SQL portion of the course teaches the student the basics of retrieving data from a database server. Each student benefits by learning industry standards while utilizing the latest database software and online training materials. (30 theory hours + 45 lab hours per term)

CIS 1610 – Windows Client Software for Systems Administrators 3
Previously CIS 137 (Recommended prerequisite: CIS 1420)

Focuses on managing the Windows operating system including user accounts and groups and to control access to files and other resources. Covers concepts such as internet working, protocols, remote access, performance tuning and troubleshooting. This course may assist in preparation for MCTS or MCTIP certification. Version taught subject to change. Please check with school. (30 theory + 45 lab hours per term)

CIS 1620 – Windows Client for Enterprise Support Technicians 3
Previously CIS 138 (Prerequisite: CIS 1610)

Focuses on supporting and troubleshooting applications on the Windows operating system in a corporate environment. Topics will include managing and troubleshooting, access to resources, hardware devices and drivers, desktop and user environments and network protocols and services. Installation and upgrading as well as remote assistance will also be covered. This course may assist in preparation for MCTS and MCTIP certification. Windows version taught subject to change. Please check with school. (30 theory + 45 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

CIS 1625 – Windows Client for Consumer Support Technicians 3
Previously CIS 139 (Prerequisite: CIS 1610 or department approval)

Focuses on supporting and troubleshooting user applications on a Windows operating system in either a home or consumer retail environment. Topics will include application issues involving: configuring, troubleshooting, usability, customization, connectivity and security. This course may assist in preparation for MCTS and MCTIP certification. Windows version taught subject to change. Please check with school. (30 theory + 45 lab hours per term)

CIS 1680 – Linux Essentials 3
Previously CP 274L (Prerequisite: IT 1010 or department approval)

Introduces the LINUX operating system, with emphasis on the basic commands of the environment. Students will learn the LINUX file system and how to perform common file maintenance from the command line as well as the GUI. Covers how to install, upgrade and delete application packages, use network utilities and perform common system administration tasks. (30 theory + 45 lab hours per term)

CIS 1710 – Beginning XHTML 1
Previously CIS 164 (Recommended pre- or corequisite: CIS 1130)

Focuses on the concepts of a format used for writing documents to be viewed with a Web browser. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1711 – Intermediate XHTML 1
Previously CIS 165 (Recommended prerequisite: CIS 1710)

Applies the concepts of intermediate XHTML markup such as forms, tables and cascading style sheets. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1712 – Advanced XHTML 1
Previously CIS 166 (Recommended prerequisite: CIS 1711)

Introduces concepts such as incorporating multimedia Javascripts and controlling the layout of the page. (5 weeks; 10 theory + 15 lab hours per term)

CIS 1713 – XHTML Complete 3
This course is designed for students who want to learn to communicate effectively using web development technology. Students will learn principles and techniques for client-side programming which includes XHTML, CSS, JavaScript and web graphics.

CIS 1715 – Overview of Web Technologies 3
Previously CP 106 (Pre- or corequisite: IT 1010 or department approval)

Covers basic UNIX commands for manipulating and managing CNM Web accounts, different Web servers, client to Web server interaction. Demonstration and incorporation of client side scripting (JavaScript, JScript and VB Script) Java applets and server side scripting (ASP, ColdFusion and Perl) (30 theory + 45 lab hours per term)

CIS 1725 – Extensible Markup Language 3
Previously CIS 183 (Prerequisite: CIS 1712 or CIS 1713)

Focuses on creating XML documents, binding XML data, Document Type Definitions and XML Schema Language, Namespaces, Cascading Style Sheets and Extensible Style Sheet Language (XSL). (15 weeks; 30 theory + 45 lab hours per term)

CIS 1730 – Web Programming with JavaScript 3
Previously CP 132 (Prerequisite: CIS 1710 + CIS 1711 or CIS 1713; or department approval)

Covers the fundamentals of the Common Gateway Interface (CGI) protocol and JavaScript. Uses compiled programs and introduces CGI security concerns. (30 theory + 45 lab hours per term)

CIS 1750 – Web Programming with PHP 3

Previously CP 135 (Pre- or corequisite: CIS 1730)

Continues skill development with focus on integrating scripting into Web designs and structures using PHP. Develops both client and server application, incorporating many advanced Web page development techniques. (30 theory + 45 lab hours per term)

CIS 2095 – Cooperative Education 4

Previously CIS 299 (Prerequisite: CIS 1172 or CIS 1182 or CIS 2111 or CIS 2350 or CIS 2620; department approval)

Provides students the opportunity to work a minimum of 150 hours at business or training-related supervised work stations. Student trainees are paid by the cooperating firm and supervised jointly by CNM and the employer.

CIS 2096, 2196...2996 – Special Topics 1–3

(all courses ending in 96 are topics courses)

Previously CIS 296

Explores current topics in computers.

CIS 2097 – Independent Study Variable

(all courses ending in 97 are independent study courses)

Previously CIS 297 (Prerequisite: department approval)

Allows student and instructor to define a specific problem in the area of the student's interest and directly related to the program. The student develops and executes a solution using analytical techniques appropriate to the problem. An oral presentation may be required.

CIS 2098 – Internship 4

Previously CIS 298 (Prerequisite: CIS 1172 or CIS 1182 or CIS 2111 or CIS 2350 or CIS 2620; department approval)

Provides students the opportunity to work a minimum of 150 hours at business or training-related supervised work stations. Students are not paid for their work but are supervised jointly by CNM and the company.

CIS 2110 – Project Management Software 1

Previously CIS 186 (Recommended prerequisite: IT 1010 + CIS 1130)

Focuses on planning, scheduling, managing and communicating project information. (5 weeks; 10 theory + 15 lab hours per term)

CIS 2111 – Project Management 3

Previously CIS 254 (Pre- or corequisite: CIS 2110)

Focuses on the project management framework and covers each of the project management knowledge areas in the context of information technology projects. (30 theory + 45 lab hours per term)

CIS 2120 – Hardware and Software Administration 3

Previously CIS 201 (Prerequisite: CIS 1130 or CIS 1610 or department approval)

Introduces concepts such as Windows operating systems, installation of boards and hardware, troubleshooting and disassembling/building a microcomputer system. This course may assist in preparation for the A+ exams. (30 theory + 45 lab hours per term)

CIS 2121 – Advanced Hardware and Software Management 3

Previously CIS 202 (Prerequisite: CIS 2120 or department approval)

Focuses on computer system software including advanced installation/ troubleshooting of software, conflict resolutions, evaluating and troubleshooting operating systems. This course may assist in preparation for the A+ exams. (30 theory + 45 lab hours per term)

CIS 2130 – Word Certification Prep 1

Previously CIS 220 (Recommended prerequisite: CIS 1120)

Focuses on integrating all levels of Word and may assist in preparation for the Word MOS certification exam. (5 weeks; 10 theory + 15 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

CIS 2131 – MS Outlook Certification Prep 1

Previously CIS 221 (Recommended prerequisite: CIS 1150)

Focuses on integrating all levels of MS Outlook and may assist in the preparation for the Outlook MOS certification exam. (5 weeks; 10 theory + 15 lab hours per term)

CIS 2132 – PowerPoint Certification Prep 1

Previously CIS 222 (Recommended prerequisite: CIS 1145)

Focuses on integrating all levels of PowerPoint and may assist in preparation for the PowerPoint MOS certification exam. (5 weeks; 10 theory + 15 lab hours per term)

CIS 2133 – Excel Certification Prep 1

Previously CIS 224 (Recommended prerequisite: CIS 1172)

Focuses on integrating all levels of Excel and may assist in preparation for the Excel MOS certification exam. (5 weeks; 10 theory + 15 lab hours per term)

CIS 2134 – Access Certification Prep 1

Previously CIS 226 (Recommended prerequisite: CIS 1182)

Focuses on integrating all levels of Access and may assist in preparation for the Access MOS certification exam. (5 weeks; 10 theory + 15 lab hours per term)

CIS 2135 – Microsoft Expression 3

(Recommended prerequisite: IT 1010)

Microsoft Expression is used to build websites that include designing a layout for a page, using Cascading Style Sheets, designing tables and forms and publishing a website. (30 theory + 45 lab hours per term)

CIS 2140 – Business Database Management 3

Previously CIS 230 (Prerequisite: CIS 1182)

Focuses on using Access advanced features to support the business-decision process through modeling, analysis and control structures and converting simple forms and reports into essential business tools. Additional topics include switchboards, macros and domain aggregate functions, controlling code executions, creating complex Access Web pages and sharing Access data. (30 theory + 45 lab hours per term)

CIS 2145 – Excel Advanced Business Applications 3

Previously CIS 231 (Prerequisite: ACCT 2410 or CIS 1172)

Focuses on using Excel advanced features to create a decision support system using general management tools, statistical models, financial models and analyzing advanced macros for general business practices. Additional topics include converting and using lists, primary and secondary charts, troubleshooting functions, creating custom functions and forms, controlling code executions and sharing Excel data with other programs. (30 theory + 45 lab hours per term)

CIS 2147 – Macro Programming 1

Previously CIS 237 (Pre- or corequisite: ACCT 2410 or CIS 1172)

Provides students with basic procedures for writing and running a macro. (5 weeks; 10 theory + 15 lab hours per term)

CIS 2149 – MS Visio 1

Previously CIS 252 (Recommended prerequisite: IT 1010)

Focuses on using Visio to create a broad range of diagrams for networks, databases, application software and the Web. (5 weeks; 10 theory + 15 lab hours per term)

CIS 2150 – MS SQL Server – Implementation and Maintenance 3

Previously CIS 290 (Prerequisite: CIS 1610 or CIS 2520 or CIS 2620)

Students will gain valuable experience with: installing, configuring, security, disaster recovery, maintaining databases, monitoring and troubleshooting SQL Server performance. They will also be creating and implementing database objects (views, triggers, functions, procedures, constraints) and supporting data consumers (Queries, Insert, Update, Delete statements) This course will help in preparation for MCTS certification. (30 theory + 45 lab hours per term)

CIS 2151 – MS Exchange Server 3

Previously CIS 291 (Recommended prerequisite: CIS 1610. Recommended pre- or corequisite: CIS 2620)

Provides students with the concepts of Microsoft Exchange Server. Instruction is provided on Exchange installation, configuration, user accounts, security and performance. This course may assist in preparation for MCTS certification. (30 theory + 45 lab hours per term)

CIS 2160 – Office Integration 1

(Prerequisite: IT 1010)

Covers the relationship between Word, Excel, PowerPoint and Access and offers practice in projects using all applications. (5 weeks; 10 theory + 15 lab hours per term)

CIS 2235 – Java Programming I 3

Previously CP 235 (Prerequisite: CIS 1275 or department approval)

Provides an accelerated introduction to the Java programming language. Covers class design and implementation, object-oriented design topics, Graphic User Interface development, exception handling, file input/output, inheritance, polymorphism. Attention is given to preparation for the Sun Java Associate Certification test. (30 theory + 45 lab hours per term)

CIS 2237 – Java Programming II 3

Previously CP 237 (Prerequisite: CIS 2235)

Covers advanced Java technologies including JSP's and servlets. This course includes design, implementation and deployment of intermediate and advanced web applications using NetBeans IDE and Tomcat server. (30 theory + 45 lab hours per term)

CIS 2270 – Open GL Programming 3

Previously CP 260L (Prerequisite: CIS 1275 or department approval)

Explores the OpenGL Application Programming Interface as it is implemented under Windows-based operating systems. The course covers the fundamentals of graphical programming using the C/C++ language. The course begins by exploring orthographic and perspective clipping and window viewports. Programming projects include building scenes with basic primitives including points, lines and polygons. Color, material, lighting properties and texture maps are incorporated into program later in the course. Students will use OpenGL's GLUT library for the necessary GUI capabilities. (30 theory + 45 lab hours per term)

CIS 2275 – C++ Programming II (Object-Oriented Programming) 3

Previously CP 278B (Prerequisite: CIS 1275 or department approval)

Continues coverage of C++ programming. Covers structures, enumerated data types, C++ function enhancements, classes and objects, inheritance and virtual functions. This advanced course provides a solid foundation in object-oriented programming methods. (30 theory + 45 lab hours per term)

CIS 2277 – C++ Programming III (Advanced OOP) 3

Previously CP 278C (Prerequisite: CIS 2275 or department approval)

Covers advanced programming including stacks, queues, linked lists, template classes, inheritance and polymorphism and other computer science problems. (30 theory + 45 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

CIS 2279 – Windows Programming in C++ 3

Previously CP 290 (Prerequisite: CIS 2275 or department approval)

Provides an introduction to writing Windows-based programming applications. The course topics include building windows, drawing into the window, building menus, dialog boxes, toolbars and other graphical user interface components. Advanced C++ concepts and classes are incorporated into programs. The course begins with Microsoft Foundation Class (MFC) overview and message handling concepts. The majority of programs are written using wxWidgets, a cross-platform windows library. The development environment is Microsoft Visual C++. (30 theory + 45 lab hours per term)

CIS 2284 – .NET II/C#/Visual Basic 3

Previously CP 287 (Prerequisite: CIS 2280 or CIS 1284 or department approval)

Course focuses on development of advanced ASP applications and ASP Web services. A substantial portion of the course curriculum includes applications that manipulate a relational database. All classes are written in either VB.NET or C#.NET. (30 theory + 45 lab hours per term)

CIS 2310 – Desktop Publishing 3

Previously CIS 255 (Prerequisite: IT 1010 + CIS 1130; or department approval)

Focuses on professional high-quality page design for business publications, newsletters, flyers, brochures, business cards and advertisements-using page layout tools for print and the Web. (30 theory + 45 lab hours per term)

CIS 2330 – Authorware 3

Previously CIS 270 (Recommended prerequisite: CIS 1310)

Explores concepts of interactive multimedia authoring program with emphasis on learning to combine a variety of media. (30 theory + 45 lab hours per term)

CIS 2335 – Director 3

Previously CIS 271 (Recommended prerequisite: CIS 1310)

Emphasizes concepts such as the use of interactive multimedia script language to create dynamic multimedia productions. (30 theory + 45 lab hours per term)

CIS 2336 – Introduction to Motion Graphics 3

Focuses on concepts such as the ability to generate animations and composites of all kinds, from stylized motion graphics to realistic visual effects. Create media production and motion graphics effects for film and video. Uses flexible digital motion graphics and compositioning software that enables digital effects to be easily integrated into live video or film. For visual effects and motion graphics pros of all stripes – from broadcast professionals to VFX supervisors to web designers who need to produce occasional video segments.

CIS 2340 – Dreamweaver 2

Previously CIS 272 (Recommended prerequisite: IT 1010)

Explores concepts such as building websites using rollovers, tables and style sheets. (10 weeks; 20 theory + 30 lab hours per term)

CIS 2350 – Flash 3

Previously CIS 273 (Recommended prerequisite: IT 1010 + CIS 1310)

Focuses on concepts such as animation, drawing and interactivity in Flash as well as sound and introduction to actions. (30 theory + 45 lab hours per term)

CIS 2355 – Adobe Illustrator 3

Previously CIS 274 (Prerequisite: CIS 1330 or department approval)

Explores concepts such as vector-based artwork for print, presentation and the Web using draw tools to produce templates, patterns and logos for a wide variety of business publications ranging from business cards to banners. (30 theory + 45 lab hours per term)

CIS 2360 – Digital Video Editing 3

Previously CIS 275 (Prerequisite: CIS 1310)

Lab-based instruction and application of the theories and techniques of non-linear digital video editing. Emphasis will be on editing and integrating special effects for video, CD-ROM and the Web.

CIS 2370 – Business Web Graphics 2

Previously CIS 276 (Prerequisite: ECM 1010 + CIS 1711; or CIS 2340)

Analyzes production techniques for design and creation of professional business websites and optimize the appearance of business websites by incorporating appropriate graphics. Tools include animations, rollover effects, buttons, thumbnail galleries, image slices and icons. Attention given to bandwidth and presentation needs unique to the Web. Focuses on developing business websites that are attractive, professional and appropriate to business representation and functions on the Web. (10 weeks; 20 theory + 30 lab hours per term)

CIS 2380 – PhotoShop Practicum 2

Previously CIS 263 (Prerequisite: CIS 1330 or department approval)

Expands on the Photoshop skill set to develop proficiency with Masks, Channels, Clipping Paths, Clipping Groups, History, Blending Modes, Curves and Color Correction. The focus is on the core image-editing tools of Photoshop that can be universally applied to photography, print, or the Web. The material is covered in production-oriented projects. (10 weeks; 20 theory + 30 lab hours per term)

CIS 2420 – Basic Router Config./Cisco Academy Semester 2 3

Previously CP 205 (Prerequisite: CIS 1425)

Configure routers, other layer 3 devices and their associated protocols in different network scenarios. Prepares students for the Cisco Certified Networking Associate certification. (30 theory + 45 lab hours per term)

CIS 2423 – Local Area Network Management/Cisco Academy Semester 3 3

Previously CP 206 (Prerequisite: CIS 2420)

Configure and troubleshoot routers/switches in a LAN environment. Prepares students for the Cisco Certified Networking Associate certification. (30 theory + 45 lab hours per term)

CIS 2425 – Wide Area Network Management/Cisco Academy Semester 4 3

Previously CP 207 (Prerequisite: CIS 2423)

Configure and troubleshoot routers/switches in a WAN environment. Prepares students for the Cisco Certified Networking Associate certification. (30 theory + 45 lab hours per term)

CIS 2427 – Troubleshooting Networks 3

Previously CP 285 (Pre- or corequisite: CIS 2425)

Allows students to run a wide variety of applications over a network and apply troubleshooting techniques using software and LAN and WAN analyzing equipment. (30 theory + 45 lab hours per term)

CIS 2450 – Fundamentals of Network Security 3

Previously CP 231 (Prerequisite: CIS 2423)

Introduces Network Security and overall security processes. The focus of the course will be hands-on experience for students with emphasis on: security policy design and management, security technologies, products and solutions. (30 theory + 45 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

CIS 2520 – Introduction to SQL (Structured Query Language) 3

Previously CP 221 (Prerequisite: CIS 1513 or department approval)

Introduction to Structured Query Language (SQL) within the context of an Oracle database. Students will create basic and complex queries (joining, sub-queries, aggregate functions, grouping data) and learn to manipulate data using insert, update and delete statements. Students will create tables, views, constraints, indexes and sequences and benefit by learning the industry standards while utilizing the latest database software and online training materials. This course also prepares students to pass the 1st Oracle Associate Certification Test. (30 theory hours+ 45 lab hours perform)

CIS 2521 – Database Programming with PL/SQL 3

Previously CP 222 (Prerequisite: CIS 2520 or department approval)

Introduces Oracle's PL/SQL programming language, which is a standard procedural language for relational databases. Students will learn and develop PL/SQL programs that use built-in SQL functions, conditional and iterative control structures, stored procedures, functions, packages, triggers and how to trap exceptions. Each student benefits by learning the industry standards while utilizing the latest database software and online training materials. Prepares students for 2nd Test, which will award them with the Oracle Certified Associate Certification. (30 theory hours + 45 lab hours per term)

CIS 2522 – Oracle Internet Forms 3

Previously CP 218 (Prerequisite: CIS 2520 or department approval)

Students will build, test and deploy Internet applications with Oracle Forms. Working in a graphical user interface environment, they will learn how to build forms with user input items such as check boxes, list items and radio groups as well as customize forms by creating event-related triggers. Prepares students for 3rd and final Test, which will award them with the Oracle Certified Professional Certification. (30 theory hours + 45 lab hours per term)

CIS 2524 – Oracle Reports 3

Previously CP 224 (Prerequisite: CIS 2520)

Students learn how to design and build a variety of standard and custom Web and paper reports using Oracle Reports Developer. Students will learn Reports Builder to set up a Data Model, retrieve and display data and format data from any data source in numerous reporting styles and publish the output to any destination. (30 theory + 45 lab hours per term)

CIS 2610 – Foundations of Network+ 3

Previously CIS 239 (Recommended prerequisite: IT 1010 + CIS 1420)

Provides students with the skills and knowledge expected of networking professionals. It provides a foundational knowledge in diverse operational environments and operating systems. This course may assist in preparation for Network+ certification. (30 theory + 45 lab hours per term)

CIS 2620 – Windows Server Management 3

Previously CIS 243 (Recommended pre- or corequisite: CIS 1420 + CIS 1610)

Focuses on user and group management, client and server management and file-sharing management. This course may assist in preparation for MCTS or MCTIP certification. Version being taught is subject to change. Please check with school. (30 theory + 45 lab hours per term)

CIS 2621 – Windows Server Enterprise Administration 3

(Prerequisite: CIS 1620 or department approval)

Focuses on operating and managing Windows Server in a large enterprise environment. Topics include planning networks and application services, designing core identity and access management components, planning for migrating, upgrading and restructuring domains and forests, implementing PKI, and designing virtualization strategy. This course may assist in preparation for MCTS and MCTIP certification. Windows version taught subject to change. Please check with school.

CIS 2630 – Windows Server Application Infrastructure Configuration 3
Previously CIS 245 (Prerequisite: CIS 2620 or department approval)

Focuses on how to configure Windows Server for a variety of network roles. Subjects covered include application server, file server, Internet Information Server, terminal services server and high availability technologies. This course may assist in preparation for MCTS or MCTIP certification. Server version being taught subject to change. (30 theory + 45 lab hours per term)

CIS 2635 – Windows Directory Services Management 3
Previously CIS 246 (Prerequisite: CIS 2620 or department approval)

Focuses on organizing objects into a structure that provides a means for searching and locating objects within the network database directory and making information available to authorized users, applications and operating system services. This course may assist in preparation for MCTS or MCTIP certification. Version being taught is subject to change. Please check with school. (30 theory + 45 lab hours per term)

CIS 2650 – Windows Server Network Infrastructure Configuration 3
Previously CIS 251 (Prerequisite: CIS 2620 or department approval)

Focuses on how to configure, manage and secure IP addressing services, DNS, DHCP, Network access, file and print services and network monitoring and management. This course may assist in preparation for MCTS and MCITP certifications. Server version being taught is subject to change. (30 theory + 45 lab hours per term)

CIS 2660 – Principles of Information Security 3
Previously CIS 257 (Prerequisite: CIS 1420. Recommended prerequisite: CIS 2630)

Explores network security in depth. Topics included are risk management, network security policy, security training, implementing security and security maintenance.

CIS 2670 – Computer Security+ 3
Previously CIS 258 (Prerequisite: CIS 1420. Recommended prerequisite: CIS 2630)

Focuses on an overview of network and computer security. Topics included are general security concepts, communication security, infrastructure security, operational and organization security. (30 theory + 45 lab hours per term)

CIS 2680 – Linux Administration 3
Previously CP 275 (Prerequisite: CIS 1680 or department approval)

Allows students to build and customize a LINUX server in a network environment and administer it remotely. Covers the tasks involved in the installation, configuration and administration of a LINUX server. Students will learn to perform the common tasks of user and group administration, integration of a server into a LAN and the configuration of Linux services. (30 theory + 45 lab hours per term)

CIS 2740 – Cascading Style Sheets 3
(Recommended prerequisite: CIS 1710 + CIS 1711)

Introduces the fundamentals of Cascading Style Sheets and their role in separating the content of Web pages from their presentation. Provides a firm understanding of how CSS works and how they are used to format and style Web pages. (30 theory + 45 lab hours per term)

CIS 2745 – ASP.NET 3
(Prerequisite: CIS 1750 or department approval)

This course covers aspects of server side scripting using Active Server Pages. Focuses on how to develop interactive and dynamic Web applications using ASP and the .NET framework. (30 theory + 45 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

CIS 2750 – ColdFusion 3
(Prerequisite: CIS 1730 or department approval)

Covers one of the most common forms of "middle ware" in the Web environment. The focus will be on data manipulation via ColdFusion. (30 theory + 45 lab hours per term)

CIS 2755 – JavaServer Pages 3
(Recommended prerequisite: CIS 1750)

Introduces the main concepts of JSP technology, syntax and components of JSP development. Focuses on how to design and develop dynamic Web pages with JSP and how to build database driven Web applications using JSP. (30 theory + 45 lab hours per term)

CJ – Criminal Justice Courses School of Health, Wellness & Public Safety

CJ 1001 – Introduction to Criminal Justice 3
(Prerequisite: ENG 0750 + MATH 0750 + RDG 0750; or appropriate placement scores, see page 12; or department approval)

Introduces the structural framework for the criminal justice system in the United States. The function, role and practices of the police, the courts and corrections will be explained and career opportunities in the administration of justice are explored.

CJ 1002 – Criminal Law 3
Previously CJ 101 (Prerequisite: ENG 0950 + MATH 0750 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Covers the historical development, elements and goals of common and statutory criminal laws, which control actions in the criminal justice system.

CJ 1007 – Criminal Procedure 3
Previously CJ 107 (Prerequisite: ENG 0950 +MATH 0750 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Examines the method of enforcing the substantive criminal law. Includes the process of applying the established law, constitutional law, rules of evidence, case law and an understanding of the logic used by the courts.

CJ 1096, 1196...1996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
(Prerequisite: department approval)

Provides the in-depth study of problems and the advanced techniques that criminal justice expert's use in responding to them.

CJ 1502 – Juvenile Law and Procedure 3
Previously CJ 102 (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Covers the juvenile court and justice system including the Children's Code and the Rules of Procedure.

CJ 1509 – Introduction to Security Services 3
Previously CJ 109 (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Covers the development of security services, relationships to the legal process, career roles and operational processes in security operations. The course also helps homeowners and covers Homeland Security, report writing and emergency procedures.

CJ 1518 – Report Writing 3
Previously CJ 118 (Prerequisite: ENG 0950 + RDG 0950 + MATH 0930; or appropriate placement scores, see page 12; or department approval)

Covers criminal justice reports, including writing and use of forms.

CJ 1580 – Patrol Practices 3
Previously CJ 1570 (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12 or department approval)
Introduces basic patrol functions, practices problems faced by law enforcement officers.

CJ 2005 – Probation and Parole 3
Previously CJ 203 (Prerequisite: CJ 1502 + CJ 1007; or department approval)
Presents the history, philosophy and legal basis governing investigation and supervision of juvenile offenders and adult violators placed on probation and parole.

CJ 2006 – Rules of Criminal Evidence 3
Previously CJ 210 (Prerequisite: CJ 1002 + CJ 1007; or department approval)
Covers the application of the Federal Rules of Evidence and the New Mexico Rules of evidence in a criminal case from investigation through sentencing.

CJ 2007 – White Collar Crimes 3
Previously CJ 211 (Prerequisite: CJ 1002 + CJ 1007; or department approval)
Presents the criminal elements of white collar crimes and the techniques and methods to investigate these specific crimes to include computer crimes.

CJ 2008 – Organized Crime and Terrorism 3
Previously CJ 213 (Prerequisite: CJ 1002 + CJ 1007; or department approval)
Covers the history of organized crime and terrorism and presents methods and practices of both. Presents current trends and the growing relationship between the two entities.

CJ 2009 – Management for Criminal Justice Professionals 3
Previously CJ 215 (Prerequisite: CJ 1002 + CJ 1007; or department approval)
Presents management methods in a criminal justice environment to include law enforcement, corrections and security. Covers basic management theory, leadership, assertiveness, time management, performance evaluation, legal issues, ethics and supervision.

CJ 2011 – Public Policies and Strategies 3
Previously CJ 217 (Prerequisite: CJ 1002 + CJ 1007; or department approval)
Presents issues and strategies involved in developing and implementing public policy, including problems in criminal justice, standard police operations, public security, public safety, corrections and juvenile justice.

CJ 2096, 2196...2996 –Special Topics 1-6
(all courses ending in 96 are topics courses)
(Prerequisite: department approval)
Provides the in-depth study of problems and the advanced techniques that criminal justice expert's use in responding to them.

CJ 2505 – Community-Oriented Policing 3
Previously CJ 208 (Prerequisite: CJ 1002 + CJ 1007; or department approval)
Examines the history of policing, problems with earlier methods, re-thinking of the basic role of police and using police for problem solving, improving relations and crime prevention with the public.

CJ 2511 – Correctional Services 3
Previously CJ 216 (Prerequisite: CJ 1002 + CJ 1007; or department approval)
Covers the duties and authorities of correctional officers, admission procedures, cell searches, lockdown, penal terminology, key control measures and operations, as well as court decisions dealing with corrections.

CJ 2515 – Criminal Investigation 3
Previously CJ 212 (Prerequisite: CJ 1002 + CJ 1007 + CJ 1518; or department approval)
Presents basic criminal investigation from the preliminary investigation to final preparation and presentation in court.

Course Subject Code/Course Number – Course Name Credit Hours

CJ 2692 – Criminal Investigation Laboratory 1
Previously CJ 212L (Pre- or corequisite: CJ 2515 or department approval)
Introduces exercises and practical demonstrations related to the investigations of crime. (45 lab hours per term)

CJ 2695 – Cooperative Education 3
Previously CJ 299 (Prerequisite: department approval)
Employs the student at an approved program-related work site and applies learned theory based on goals and objectives.

CJ 2697 – Independent Study Variable
Previously CJ 297 (Prerequisite: department approval)
Focuses on a specific problem while working with an instructor.

CJ 2698 – Internship 3
Previously CJ 298 (Prerequisite: department approval)
Provides opportunity for student to work as a volunteer in an appropriate criminal justice school. Position is not paid. (135 lab hours per term)

CJ 2999 – Criminal Justice Capstone Course 1
Previously CJ 295 (Prerequisite: department approval)
Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. (Taken during student's last term)

CLA – Clinical Laboratory Assistant Courses School of Health, Wellness & Public Safety

CLA 1010 – Introduction to Laboratory Techniques 3
Previously CLA 101L (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; PHLB 1090 or department approval ; HLTH 1001 or department approval. Corequisite: CLA 1075)
Introduces basic medical laboratory techniques with an emphasis on urinalysis and immunology. Includes laboratory instrumentation, communication, quality control and safety. (7.5 weeks; 4 theory + 6 lab hours per week = 30 theory/45 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

CLA 1075 – Basic Hematology/Coagulation 2
Previously CLA 104L (Corequisite: CLA 1010)
Presents theory and procedures associated with routine hematology and coagulation tests. Students apply theory in performing basic hematology and coagulation tests procedures. Includes instrumentation, calibration and quality control. (7.5 weeks; 2 theory + 6 lab hours per week = 15 theory + 45 lab hours per term)

CLA 1096, 1196...1996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
Previously CLA 296
Explore various topics of interest in the field of Clinical Lab Assistant.

CLA 1570 – Basic Chemistry/Microbiology 2
Previously CLA 106L (Prerequisite: CLA 1010 + 1075. Corequisite: CLA 1590)
Presents theory and procedures associated with routine chemistry and microbiology tests. Students apply theory in performing basic chemistry and microbiology procedures. Includes instrumentation, calibration and quality control. (7.5 weeks; 2 theory + 6 lab hours per week = 15 theory + 45 lab hours per term)

CLA 1590 – Clinical Experience 3
Previously CLA 103C (Corequisite: CLA 1570)
Provides practical experience in chemistry, hematology, microbiology and urinalysis procedures in hospital and clinic medical laboratories. (135 clinical hours per term)

CM – Construction Management Courses School of Applied Technologies

CM 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)
Presents various topics. See *Schedule of Classes*.

CM 1105 – Construction Detailing 3
Previously CM 130
Introduces the basics of manual drawing and drafting, construction detailing, construction contract documents, working drawings and blueprint reading. (30 theory + 37.5 lab hours per term)

CM 1110 – Construction Materials and Techniques 3
Previously CM 171
Introduction to the construction industry, educational opportunities, materials, techniques and terminology of construction.

CM 1115 – Commercial Construction Theory 3
Previously CM 203
Through exercises and lecture students will become familiar with model building codes, the project manual\specifications and zoning and planning codes. Students will investigate how they affect and govern the construction process.

CM 1205 – Computer Aided Construction Drafting/Engineering 2
Previously CM 132L (Pre- or corequisite: CAD 1001 or department approval)
Introduces principles and techniques of computer graphic applications used in the construction industry. (15 theory + 45 lab hours per term)

CM 1210 – Mechanical Electrical Systems and Construction 3
Previously CM 279
Introduces materials and equipment associated with the mechanical and electrical systems used in commercial and residential buildings.

CM 1215 – Construction Equipment and Methods 3
Previously CM 263
Presents large equipment used to move, lift and assemble components of commercial buildings. Covers earth work, concrete forms and construction, along with steel, wood and masonry methods and productivity.

CM 1220 – Introduction to Construction Project Management 3
Previously CM 267
Introduction to construction project planning and scheduling. Students will be introduced to management topics such as leadership, quality control, document control and risk management. (45 Theory Hours)

CM 1305 – Construction Estimating 3
Previously CM 257 (Prerequisite: CM 1105 + CM 1205 + CM 1110; or department approval. Recommended prerequisite: MATH 0940)
Covers cost estimates on buildings based on Construction Specifications Institute, formatted budgets, take-off techniques. (15 theory + 75 lab hours per term)

CM 2096, 2196...2996 – Special Topics 1-4
(all courses ending in 96 are topics courses)
Previously CM 296 (Prerequisite: department approval)
Provides in-depth study of topics related to construction management.

Course Subject Code/Course Number – Course Name Credit Hours

CM 2105 – Construction Scheduling 3
(Prerequisite: CM 1305 or department approval)
Introduction to techniques for transforming contract documents into project schedules, including Gantt, Pert and CPM development. Students break down a job into its basic tasks and reassemble it in a framework that controls time, work materials and related activities. During the course students will apply theory, knowledge and techniques to actual projects using computer scheduling programs. (15 hours theory + 45 hours lab)

CM 2115 – Computerized Estimating Techniques 3
Previously CM 260 (Prerequisite: CM 1305 or department approval)
Covers various methods of computerized estimating techniques including spreadsheets, estimating software, digitized take-off and Web based plan rooms and project files. This class will utilize industry standard applications. (15 theory + 75 lab hours per term)

CM 2120 – Statics 3
Previously CM 256 (Pre- or corequisite: MATH 1310 or department approval)
Introduces the use of graphic and algebraic formulas, static forces, equilibrium, moments and stress and strain. During the course forces in beams and columns in wood, steel and concrete will be analyzed.

CM 2205 – Construction Surveying 3
Previously CM 261L (Prerequisite: MATH 1310 or GIS 1001 or department approval)
Introduces the basic techniques and equipment used in surveying including tape, level and theodolite; leveling, distance and angle measurement; traversing; and note-keeping. (15 theory + 75 lab hours per term)

CM 2210 – General Contractor Preparation 3
Previously CM 175
This course covers licensing requirements, rules and regulations, business and law and other important aspects of owning and running a construction business. Completion of this course substitutes for the Business and Law portion of the licensing exam.

CM 2215 – Estimating and Bidding 3
Previously CM 262 (Prerequisite: CM 1305 + CM 2115)
Students will develop unit cost estimates and become familiar with project bidding processes. Computerized estimating software will be introduced to prepare estimates and replicate the bidding process. (30 theory + 45 lab hours per term)

CM 2220 – Computerized Project Management and Scheduling 3
Previously CM 280 (Prerequisite: CM 1110 + IT 1010; or department approval)
Covers various methods of computerized scheduling methods and techniques. Exposes the student to state of the art project scheduling software and project management techniques used by local industry. The student will participate in group projects and will develop real world project schedules. (15 theory + 75 lab hours per term)

CM 2995– Cooperative Education 3
Previously CM 299 (Prerequisite: department approval)
Provides opportunities for the student to be employed at an approved course-related work site and applies learned theory based on goals and objectives for one term. The position is paid.

CM 2997 – Independent Study 2-4
Previously CM 297 (Prerequisite: department approval)
Allows the student and instructor to define a specific problem directly related to the program in the area of the student's interest. The student develops and executes a solution using analytical and drafting techniques. An oral presentation may be required.

CM 2998 – Internship 3

Previously CM 298 (Prerequisite: department approval)

Provides opportunities for the student to work for one term on a cooperative basis in an appropriate defined training program. The position is not paid.

CM 2999 – Construction Management Capstone Course 1

Previously CM 295 (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies (taken during student's last term).

COMM – Communication Courses School of Communication, Humanities & Social Sciences

COMM 1096, 1196…1996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

COMM 1110 – Mass Media and Society 3

Previously COMM 110 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Examines the roles media play in American society and their effects on other forms of communication.

COMM 1130 – Public Speaking 3

Previously COMM 130 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Focuses on organizing and delivering (speaker skills), listening and responding (audience skills) and theory and practical application of various types of presentations.

COMM 2096, 2196...2996 – Special Topics 1-6

(all courses ending in 96 are topics courses)

Previously COMM 293 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101 + COMM 2221)

Presents various topics. See *Schedule of Classes*.

COMM 2221 – Interpersonal Communication Studies 3

Previously COMM 221 (Prerequisite: RDG 0950 + ENG 1101; or appropriate placement scores, see page 12)

Provides overview of perception, emotions, nonverbal communication, language, listening, defensiveness and relational conflict. Emphasizes developing communication styles and skills to enhance effectiveness in professional and personal relationships.

COMM 2223 – Introduction to Nonverbal Communication Studies 3

Previously COMM 223 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Examines how the face and eyes, gestures, touch, voice, physical appearance, space, time and environment communicate in personal and professional interactions.

COMM 2225 – Small-Group Communication Studies 3

Previously COMM 225 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Examines group types, characteristics, dynamics, conflicts, norms, roles, leadership, problem solving and decision making in small group processes.

COMM 2232 – Business and Professional Communication Studies 3

Previously COMM 232 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Emphasizes developing, organizing and supporting ideas in interpersonal business encounters, groups, teams, meetings, interviews and platform presentations.

Course Subject Code/Course Number – Course Name Credit Hours

COMM 2240 – Organizational Communication 3

Previously COMM 240 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Focuses on communication networks, power and authority, manager/employee relationships, leadership and interviewing in organizational contexts.

COMM 2270 – Communication Studies for Teachers 3

Previously COMM 270 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Introduces systems approach to classroom communication at any level, providing a means to analyze, develop and facilitate effective communication.

COMM 2280 – Gender Communication Studies 3

Previously COMM 290 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101 + COMM 2221)

Focuses on communication differences between men and women, implications and consequences of these differences and discussion of various strategies for change in business, media, educational and intimate contexts.

COMM 2281 – Intercultural Communication Studies 3

Previously COMM 291 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101 + COMM 2221)

Focuses on culture and differences in communication values and styles (verbal and nonverbal) Analysis of intercultural encounters and development of skills for more effective intercultural communication.

COMM 2282 – Family Communication Studies 3

Previously COMM 292 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101 + COMM 2221)

Examines family systems theory, communication patterns, rules, roles, themes, power, intimacy, ethnicity and conflict in families.

COMM 2289 – Listening 3

Previously COMM 289 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101 + COMM 2221)

Investigates and applies current research in listening theory. Analyzes the appropriateness and applicability of five major types of listening in academic, business, media and interpersonal contexts.

COS – Cosmetology Courses School of Health, Wellness & Public Safety

COS 1010 – Orientation 2

Previously COS 101 (Prerequisite: Math 1210 +IT 1010 + ENG 1101 + Fine Arts/Language elective. Corequisite: COS 1071+ 1072 + 1073 + 1074 + 1075 + 1076)

Introduces cosmetology. Presents theory in the areas of professional image, first aid, work ethic, anatomy, physiology and Salon Success.

COS 1071 – Sterilization/Sanitation Bacteriology 2

Previously COS 102A (Pre- or corequisite: COS 1010 or department approval)

Presents related theory and practical application applied to preparation, procedures, products, materials and implements. Demonstrating methods of sanitation, sterilization and disinfection; the use of chemical agents, fumigants, UV light to inhibit bacterial, viral and fungal growth to prevent infections. (15 theory and 37.5 lab hours per term)

COS 1072 – Shampoo/Rinses/Scalp Treatment 2

Previously COS 103A (Pre- or corequisite: COS 1010 + COS 1071; or department approval)

Presents, products, materials and implements related to shampoo service, hair analysis and treatments for scalp and hair. Demonstrating skills of cleansing, treatments, related chemistry, safety and record keeping that shows evidence of customer service. (15 Theory and 37.5 lab hours per term)

COS 1073 – Chemical Rearranging 2

Previously COS 104A (Pre- or corequisite: COS 1010 + COS 1071 + COS 1072; or department approval)

Introduces in theory and practice the anatomy, physiology, preparation, procedures, products, materials and implements used in permanent waving and relaxer treatments; demonstrating basic skill development in client consultation, protection, safety, recordkeeping; to include hair analysis, related chemistry, tools used and techniques of chemical rearranging. (15 Theory and 37.5 lab hours per term)

COS 1074 – Cutting/Hairstyling 2

Previously COS 105A (Pre- or corequisite: COS 1010 + COS 1071 + COS 1072; or department approval)

Introduces in theory and practice the anatomy, physiology, preparation, procedures, products, materials and tools used in hair sculpture and styling services; Demonstrating basic skill development in safety, consultation, record keeping and the technical procedures to perform cutting and styling services. Cut and styling techniques for wigs and hairpieces. (15 Theory and 37.5 lab hours per term)

COS 1075 – Hair Coloring 2

Previously COS 106A (Pre- or corequisite: COS 1010 + COS 1071 + COS 1072; or department approval)

Introduces in theory and practice the anatomy, physiology, preparation, procedures, products, materials and tools used in temporary, semi-permanent, permanent hair coloring, lightening, special effects; demonstrating basic skills in application, techniques using related chemistry and problem solving. Focus on safety, client protection, consultation and client service records to be included. (15 Theory and 37.5 lab hours per term)

COS 1076 – Manicuring/Pedicuring 2

Previously COS 107A (Pre- or corequisite: COS 1010 + COS 1071; or department approval)

Introduces in theory and practice the anatomy, physiology, preparation, procedures, products, materials and tools used in nail services for hands and feet; demonstrating basic skills in client consultation, recommendations, record keeping, use of tools, application of nail cosmetics and massage with focus on safety and client protection. (15 Theory and 37.5 lab hours per term)

COS 1092 – Hair Service Lab II 6

(Prerequisite: COS 1010 + 1071 + 1072 + 1073 + 1074 + 1075 + 1076. Pre- or corequisite COMM 2221. Corequisite: COS 1195)

Continues basic application of shampoo, rinses, scalp treatment, chemical rearranging, perm, relaxer, haircutting, coloring and styling in a supervised lab. (225 lab hours per term)

COS 1096, 1196...1996 – Special Topics 1-6

(all courses ending in 96 are topics courses)

Previously COS 296 (Prerequisite: department approval)

Provides an in-depth study of problems and advanced techniques.

COS 1097 – Independent Study Variable

Previously COS 297 (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

Course Subject Code/Course Number – Course Name Credit Hours

COS 1195 – Skin/Nails Service II 5

(Prerequisite: COS 1010 + 1071 + 1072 + 1073 + 1074 + 1075 + 1076. Pre- or corequisite: COMM 2221. Corequisite: COS 1092)

Introduces students to the theory and practice of skin and nails including: anatomy, physiology, preparation, procedures, products, facial treatments, makeup application, hair removal, eyelash/brow techniques and electro therapy. In addition, the course focuses on: client consultation, recommendations, record keeping, use of machines and appliances, application of cosmetics, massage, safety, client protection, manicuring, pedicuring, massage, advanced nail techniques, sterilization, sanitation, bacteriology, retail techniques and marketing. (15 theory + 150 lab hours per term)

COS 2093 – Hair Service III 6

(Prerequisite: COS 1092 + 1195 + COMM 2221. Corequisite: COS 2492)

Presents the intermediate application of perms, relaxers, temporary, semi-permanent and permanent color, lightening, toning and special effects. Students will also learn scissors, shears, razor and clippers, products, materials and implements in cutting, wet styling, blow drying, finger waving, air waving, hair pressing, hair extensions, hair weaving, braiding, corn rowing and hair design. (225 lab hours per term)

COS 2096, 2196…2996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

COS 2492 – Facials/Manicuring/Pedicuring Lab III 4

Previously COS 205L (Prerequisite: COS 1570 + COS 1992; or department approval)

Provides intermediate application of massage, facial treatments and makeup applications, use of electric appliances, currents and specialized machines for treatments, artificial eyelashes, removal of unwanted hair, eyelash and brow tinting and light therapy techniques in a supervised salon setting. (150 lab hours per term)

COS 2505 – Salon Operation Theory 1

Previously COS 212(Pre- or corequisite: COS 2511 or department approval)

Focuses on opening a salon and business plan, written agreements, regulations, laws, salon operation, policies, practices, personnel, compensation, payroll deductions, use of telephone, advertising, retail and sales, client communication, public relations, insurance and salon safety.

COS 2510 – Advanced Salon Theory 2

Previously COS 213 (Pre- or corequisite: COS 2505 + COS 2592; or department approval)

Presents advanced theory applied to sterilization, sanitation, bacteriology, shampoo, rinses, scalp treatments, chemical rearranging, perms, relaxers, hair cutting, hair coloring, bleaching, hairstyling, facials, manicuring and pedicuring, community health issues, salon safety, problem solving and special projects.

COS 2511 – State Laws/Regulations 1

Previously COS 211 (Prerequisite: COS 2092 + COS 2192 + COS 2292 + COS 2392 + COS 2492; or department approval)

Presents state laws and regulations, professional image, employability skills, ethics, professional standards, State Board standards, job-seeking and retention skills, customer service, teamwork, problem solving and quality principles.

COS 2592 – Salon Operation Lab (Externship) 3
Previously COS 212L (Pre- or corequisite: COS 2505 or department approval)

Exposes student to salon business and retail sales concepts as outlined in the State Board standards upon completion of 75 percent (1,243 hours) of the course of study in cooperation with a CNM-approved employer. This externship may not exceed eight hours per day or one day per week. (112.5 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

COS 2692 – Advanced Salon Lab 5
Previously COS 213L (Pre- or corequisite: COS 2510 or department approval)

Offers advanced application of safety, shampoo, rinses, scalp treatments, chemical rearranging, perms and relaxers, hair cutting, hair coloring, bleaching, hairstyling, facials, manicuring and pedicuring or other areas with minimal supervision in a salon setting. (187.5 lab hours per term)

COS 2693 – Advanced Salon Lab II 4
(Prerequisite: COS 2093 + 2492. Corequisite: COS 2505 + 2510 + 2511 + 2592 + 2692)

Students will learn advanced use of products, materials and implements in application of scissors, shears, razor and clippers, wet styling, blow drying, finger waving, air waving, hair pressing, hair extensions, weaving, braiding, corn rowing, skin treatments including massage, makeup applications and use of electric appliances, specialized machines, artificial lashes, removal of unwanted hair, lash/brow tinting, light therapy, marketing retail techniques and portfolio development. (150 lab hours per term)

CP – Computing Technology Courses School of Business & Information Technology

For CP courses, see ANIM or CIS courses on pages 202 and 221.

CR – Court Reporting Courses School of Health, Wellness & Public Safety

CR 1096, 1196...1996 – Special Topics 1–6
(all courses ending in 96 are topics courses)
Previously CR 296

Explores current topics in court reporting and stenotranscription.

CR 1111 – Introduction to Court Reporting 4
Previously CR 111

Presents steno machine keyboard and conflict-free machine shorthand theory. Theory tests must be passed with a "B" or better. Tutorials on real-time translation are available with teacher interaction.

CR 1123 – Punctuation for Court Reporters 3
Previously CR 123

Covers fundamental rules for punctuating syntax and presents verbatim English and modifies the rules to punctuate the spoken word.

CR 1131 – Machine Shorthand II 3
Previously CR 113 (Prerequisite: CR 1111)

Presents vocabulary building along with a review of conflict-free, real-time machine shorthand theory principles. Open-exit course. Students may advance to CR 1211 after reaching speeds of 60 and 80 wpm. The speed building and five-minute takes will be comprised of literary, jury charge and testimony dictation. All takes must be passed with 95 percent accuracy or better. CAT and real-time translation are introduced.

CR 1211 – Machine Shorthand III 3
Previously CR 211 (Prerequisite: CR 1131)

Covers continued vocabulary building of steno outlines and English. Open-entry, open-exit course. Students may advance to CR 1212 after reaching speeds of 100, 120 and 140 wpm. The speedbuilding and five-minute takes will be comprised of literary, jury charge and testimony dictation. All takes must be passed with 95 percent accuracy or better. CAT and real-time translation are used each class period. Four-voice dictation will be introduced to provide speaker identification instruction and dictionary entries.

CR 1212 – Machine Shorthand IV 3
Previously CR 212 (Prerequisite: CR 1211)

Emphasizes medical terminology and dictation, vocabulary building and speedbuilding. Open-entry, open-exit course. Students may advance to CR 1213 after reaching speeds of 140, 160 and 180 wpm. The speedbuilding and five-minute takes will be comprised of literary, jury charge and testimony dictation. All takes must be passed with 95 percent accuracy or better. CAT and real-time translation are used each class period. Four-voice video dictation will be provided to improve speed and accuracy with speaker identification. Steno dictionary building and transcript production on CAT will also be emphasized.

CR 1213 – Machine Shorthand V 3
Previously CR 213 (Prerequisite: CR 1212)

Emphasizes vocabulary and speedbuilding to include advanced medical and technical terminology. Open-entry, open-exit course. Students must reach the speeds of 180, 200 and 225 wpm. Students must pass three five-minute tests at each of the following speeds: 225 wpm 2-voice testimony, 200 wpm jury charge and 180 wpm literary. All takes must be passed with 95 percent accuracy or better. Four-voice video practice dictation will be given at speeds ranging from 180 to 230 wpm. Extensive dictionary building and transcript production on CAT will be emphasized.

CR 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
Previously CR 296

Explores current topics in court reporting and stenotranscription.

CR 2097 – Independent Study Variable
Previously CR 297 (Prerequisite: department approval)

Allows student and instructor to define a specific problem in the area of the student's interest and directly related to the program. The student develops and executes a solution using analytical techniques appropriate to the problem. An oral presentation may be required.

CR 2098 – Internship 3
Previously CR 298 (Prerequisite: CR 1213 + passage of one five-minute dictation take at 200 wpm on 2-voice testimony + department approval)

Arranged by program chair. Students acquire a minimum of 75 clock hours of practical experience under the supervision of a certified shorthand reporter; a minimum of 40 hours spent in actual writing time. The intern is required to report and transcribe a 40-page or two 20-page saleable transcripts from a court hearing or deposition.

CR 2240 – Legal Terminology 3
Civil law, criminal law, the judicial system and Latin/legal terminologies.

CR 2250 – Computer-Aided Transcription 3
Instruction on production of transcripts on computer-aided transcription software to include title pages, index pages, certifications, parentheticals, court and deposition formats. (30 theory + 45 lab hours per term)

CR 2251 – Stenotranscription 3

Previously CR 251 (Prerequisite: CR 1131)

Provides instruction on the functions and applications of stenotranscription software. This software allows students to transcribe tapes or CDs directly from the steno machine to produce documents. Grading is done on the production of medical and legal documents from audio tapes or CDs.

CR 2260 – Court Reporting Procedures 3

Covers instruction on depositions, administering oaths, handling exhibits, storing notes and applying ethics. Includes instruction on interviewing skills and résumé preparation.

CSCI – Computer Science Courses School of Math, Science & Engineering

CSCI 1096, 1196…1996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

CSCI 1151 – Intro to Programming for Non-Computer Science Majors 4

Previously CSCI 151 (Prerequisite: MATH 1415)

Designed for non-computer science majors interested in programming, or developing useful problem-solving skills; explores the relationship between programming and problem solving using programming languages.

CSCI 1152 – Intro to Programming for Computer Science Majors 4

(Prerequisite: MATH 1415 or higher level math course)

Introduction to computer programming designed for those interested in majoring or minoring in computer science or as a useful problem-solving skill; explores the relationship between programming and problem solving, using programs written in Java. (3 theory and 1 lab hour per week)

CSCI 1153 – Programming in Matlab 4

(Prerequisite: MATH 1415 or higher level math course)

An introduction to computing. Teaches students to understand the relationship between computing and problem solving. A general understanding of matrices and basic computer knowledge are beneficial for success in this course (3 theory and 1 lab hour per week)

CSCI 2096, 2196…2996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

CSCI 2201 – Mathematical Foundations of Computer Science 4

Previously CSCI 201 (Prerequisite: CSCI 1151 or CSCI 1152 or CSCI 1153; MATH 1710)

Introduces formal mathematical concepts of computer science for the beginning student. Topics include elementary logic, induction, algorithmic processes, graph theory and models of computation. Some programming required.

CSCI 2251 – Intermediate Computer Programming 4

Previously CSCI 251 (Prerequisite: CSCI 1151 or CSCI 1152 or CSCI 1153)

Introduces the methods underlying modern program development. Specific topics will include object oriented design and the development of graphical user interfaces. Programming assignments will emphasize the use of objects implemented in standard libraries.

CSE – College Success Experience Courses School of Adult & General Education

CSE 0196, 0296...0996 –Special Topics 1-6

(all courses ending in 96 are topics courses)

Presents various topics. See *Schedule of Classes*.

Course Subject Code/Course Number – Course Name Credit Hours

CSE 0450 – Career Options 2

Previously CSE 094

Introduces students to majors/careers offered through CNM's occupational programs. Students will participate in dynamic, interactive activities and will learn information about each career area such as educational requirements, salary and working conditions. Also, students will assess their interests, abilities and values to find their dream job.

CSE 0650 – College Survival 3

Previously CSE 099 (Prerequisite: Accuplacer Reading score of 0-68 or equivalent.)

Introduces students to the basic skills needed to survive and thrive in the college environment. Topics covered include organizational skills, basic study skills, goal setting and self-management strategies. Students will have the opportunity to explore majors and careers offered through CNM's occupational programs. This class also includes a complete orientation to CNM campus resources including the library, tutoring services, CNM online resources and student email, student activities, academic and career development. (45 theory hours + 15 lab hours)

CSE 1010 – Online Success 1

(Prerequisite: Reading 0750 or appropriate placement scores, see page 12)

This course is designed to assist students in obtaining the skills needed for successful completion of online learning courses. Topics covered in this course include Learning Management System (LMS) basics, time management for online learners and student suitability for online courses. (15 theory hours + 5 lab hours per term)

CSE 1096, 1196…1996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

CSE 1101 – College Success 3

(Prerequisite: Reading 0750 or appropriate placement scores, see page 12)

Introduces students to academic and personal skills essential for college success. Topics include techniques for time management, learning strategies, test preparation, decision making, critical thinking and applied research. Students learn to create success by applying proven principles for active learning, self-motivation, self-management, self-awareness and interdependence. (45 theory hours + 15 lab hours per term)

CSE – 1120 Career Exploration 1

Previously CSE 101 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12)

Assists students through career exploration and decision-making processes to help chart academic and career pathways. Explores four self-assessments including personal styles/characteristics, interests, values and skills for self-understanding. (15 theory hours)

CSE – 1140 Learning Strategies 1

Previously CSE 102 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12)

Assists students in developing academic and personal skills in critical thinking, critical reading, problem-solving and memory enhancement. Presents effective ways to learn systematically, prepare for exams and apply academic skills across all courses. (15 theory hours)

CSE – 1160 Research Techniques 1

Previously CSE 103 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12)

Assists students in accessing, retrieving and critically evaluating information in various formats. Includes information on effective use of all research formats, electronic and paper, within the library. (15 theory hours)

CSE 2096, 2196...2996 – Special Topics 1-6

(all courses ending in 96 are topics courses)

Presents various topics. See *Schedule of Classes*.

CST – Cultural Studies Courses School of Communication, Humanities & Social Sciences

CST 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

CST 1150 – Introduction to Cultural Studies 3
Previously CST 150 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Explores cultural constructions of differences, including but not limited to gender, race, ethnicity, social class and sexual orientation in contemporary U.S. society.

CST 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)

Previously CST 296 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents various topics. See *Schedule of Classes*.

CST 2250 – African American Studies 3
Previously CST 250A (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Investigates present-day perspectives and historical and social conditions that have shaped and affected the lives of African Americans.

CST 2251 – Chicano Studies 3
Previously CST 250H (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Investigates present-day perspectives and historical and social conditions that have shaped and affected the lives of Mexican Americans.

CST 2253 – Native American Studies 3
Previously CST 250N (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Investigates present-day perspectives and historical and social conditions that have shaped and affected the lives of Native Americans.

CST 2254 – Asian American Studies 3
Previously CST 250S (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Investigates present-day perspectives and historical and social conditions that have shaped and affected the lives of Asian Americans.

CST 2260 – Popular Culture and Cultural Identity 3
Previously CST 260 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Examines ways in which popular culture, from film and television to formula fiction, art and music, define and reveal cultural values.

CST 2265 – Introduction to Women's Studies 3
Previously CST 265 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Provides an introduction to the study of women's issues by examining the diversity of women's lives in the United States within a global context. Includes topics such as race, ethnicity, class, age, disability, sex, women's work, women's health and women and crime.

CULN – Culinary Arts Courses School of Business & Information Technology

CULN 1010 – Food Production and Service Fundamentals 3
(Prerequisite: MATH 0750 or appropriate placement scores, see page 12; CULN 1101 or HT 1101)

Provides entry level cooking, baking and service techniques required for basic food operations. Basic culinary math, cooking techniques and knife skills are introduced. Safety, sanitation and customer service are applied in a laboratory setting providing service to the public in a student-run restaurant. (30 theory + 45 lab hours per term)

CULN 1096, 1196...1996 – Special Topics 1–6
(all courses ending in 96 are topics courses)

Previously CULN 296

Explores current topics in Culinary Arts.

CULN 1101 – Introduction to Culinary Arts 1
Previously CULN 101 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12)

Prepares students for entry into the Culinary Arts lab classes and provides information to support student success as students navigate through the Culinary Arts program. Lectures, guest speakers and field trips provide students an opportunity to learn about career opportunities in culinary arts.

CULN 1102 – Applied Culinary Math 1
Previously CULN 102 (Prerequisite: MATH 0750 or appropriate placement scores, see page 12)

Apply math skills to determine measurements, the selling price of menu items, the process of recipe yield adjustment, recipe costing, labor and food costs and percentages, inventory and basic management/chef responsibilities for restaurant cost control.

CULN 1103 – Safety and Sanitation Principles 3
Previously CULN 103 (Prerequisite: RDG 0750 + MATH 0750; or appropriate placement scores, see page 12)

Introduces food code guidelines for food safety and sanitation. Emphasis is on identification and controls of biological, chemical and physical hazards. ServSafe® Food Protection Manager Certification is available. Hazard Analysis Critical Control Point (HACCP) based models and facility controls are introduced.

CULN 1111 – Cooking Fundamentals I 5
Previously CULN 111 (Prerequisite: CULN 1101 + CULN 1102. Pre- or corequisite: CULN 1103 or department approval)

Introduces students to culinary skill development and buffet procedures and the production and service of American regional cuisines. Students practice the principles of cooking methods and learn about ingredients and kitchen staples. Topics include professional knife skills, stocks and sauces, soups, salads, plate presentation, breakfast, quick breads, sandwiches, custards, soufflés and desserts, beef, veal, pork, poultry, seafood, potatoes, grains, pasta and fruits and vegetables. (15 theory + 150 lab hours per term)

CULN 1112 – Cooking Fundamentals II 5
Previously CULN 112 (Pre- or corequisite: CULN 1111 or department approval)

Develops the skills needed to work as a line cook in preparing a la carte menu items to order. Continued focus on American regional cuisines with emphasis on seasonal ingredients and the historical and geographical significances of each region is continued. Students rotate through various cooking stations (depending on menu requirement) while serving meals to the public in a student-operated restaurant. In addition to practicing hands-on cooking methods, instruction focuses on mise en place, teamwork, organization, time management, sanitation, safety and plate presentation. (15 theory + 150 lab hours per term)

CULN 1130 – Introduction to Baking Fundamentals 5

Previously CULN 130 (Prerequisite: CULN 1101 + CULN 1102. Pre- or corequisite: CULN 1103 or department approval)

Includes the theory, skills and techniques of baking fundamentals. Topics include scaling, methods of mixing, processing of ingredients, ingredient functions and baking math. The retail production and merchandising of cookies, pies, pastries, quick breads, breads, sweet yeast and cakes are introduced. Proper equipment use and safety are stressed. (15 theory + 150 lab hours per term)

CULN 1132 – Applied Baking Principles 5

Previously CULN 132 (Pre- or corequisite: CULN 1130 or department approval)

Applies learned fundamentals and concepts to continue skill development. Students apply theory and demonstrations to formulate more difficult products to merchandise. Topics include laminated sweet dough, hearth breads and rolls, decorated cakes, soft pies and cheesecake. Multitasking is stressed. (15 theory + 150 lab hours per term)

CULN 2096, 2196...2996 – Special Topics 1-6

(all courses ending in 96 are topics courses)

Previously CULN 296

Explores current topics in Culinary Arts.

CULN 2097 – Independent Study 1-6

Previously CULN 297 (Prerequisite: department approval)

Student works with the instructor on specific topics directly related to the course or program of study. The meeting time is arranged between the student and the instructor. (15 theory + 150 lab hours per term)

CULN 2211 – Global Cuisines I 5

Previously CULN 211 (Prerequisite: CULN 1112 or department approval)

Introduces flavor principles of Classical European cuisines and their cooking techniques, ingredients and cultural menus. Topics include hors d'oeuvres, canapés, charcuterie and game, as well as fine dining service techniques. (15 theory + 150 lab hours per term)

CULN 2212 – Global Cuisines II 5

Previously CULN 212 (Pre- or corequisite: CULN 2211 or department approval)

Introduces flavor principles of Global cuisines and their cooking techniques, ingredients and cultural menus. Topics include American service techniques. Students develop menus and prepare and serve cuisine in a student-operated restaurant based on Global cuisines. (15 theory + 150 lab hours per term)

CULN 2230 – Baking and Pastry Fundamentals 5

Previously CULN 230 (Prerequisite: CULN 1132 or department approval)

This course includes baking and pastry theory topics, demonstrations and hands-on applications. Students have opportunities to further develop proficiencies in a variety of breads, fillings, tarts, pies and specialty desserts. (15 theory + 150 lab hours per term)

CULN 2232 – Advanced Baking and Pastry Techniques 5

Previously CULN 232 (Pre- or corequisite: CULN 2230 or department approval)

Continues to emphasize advanced theory topic, skills and techniques of classical and contemporary pastry arts. Specialty topics will include génoise, international buttercreams, icings, sugar and chocolate decoration. (15 theory + 150 lab hours per term)

CULN 2999 – Capstone 1

Previously CULN 295 (Prerequisite: department approval)

Focuses on creating portfolios, résumé writing, job interviewing, developing menus and assessing program exit competencies and CNM core competencies.

Course Subject Code/Course Number – Course Name Credit Hours

DA – Dental Assistant Courses School of Health, Wellness & Public Safety

DA 1010 – Dental Science I 3

Previously DA 101L (Prerequisite: RDG 0950 + MATH 0750 + ENG 0950; or appropriate placement scores, see page 12)

Introduces the student to the field of dental assisting. Focuses on the history of dentistry, prevention, anatomy, histology and physiology of the head, neck and body system as they relate to dentistry. The laboratory component will include observation of a working dental office and use of computers for employability skills. (30 theory + 45 lab hours per term)

DA 1096, 1196…1996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

DA 1104 – Tooth Morphology, Histology and Recordings 3

Previously DA 104 (Prerequisite: DA 1010. Corequisite: DA 1110/1172 + DA 1120/1170 + DA 1108/1175)

Presents dental terminology as it relates to tooth morphology, oral embryology, oral pathology and oral anatomy and histology, universal charting, numbering systems, cavity classification, oral diagnosis and treatment planning.

DA 1108/1175 – Dental Radiology I 3

Previously DA 108T/108L (Prerequisite: DA 1010. Corequisite: DA 1110/1172 + DA 1104 + DA 1120/1170)

Presents process of production and projection of x-rays, operation and care of standard x-ray equipment, operational safety precautions, exposure and mounting of dental x-rays, darkroom procedures and the chemistry of processing films. (30 theory + 45 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

DA 1110/1172 – Dental Materials and Application 3

Previously DA 102T/102L (Prerequisite: DA 1010 + ENG 1101 + HLTH 1001. Corequisite: DA 1104 + DA 1120/1170 + DA 1108/1175. Pre- or corequisite: COMM 2221)

Introduces the physical and chemical properties of dental materials and their application including placement of temporary restorations, cements, bases and liners, preliminary and final impression materials, composite and crown and bridge materials. (30 theory + 45 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

DA 1120/1170 – Chairside Procedures I 3

Previously DA 106T/106L (Prerequisite: DA 1010. Corequisite: DA 1110/1172 + DA 1104 + DA 1108/1175)

Presents theory and care of dental equipment, identification of instruments and their use, tray set-up, fourhanded dentistry techniques and preparation for assisting in a clinical setting. (30 theory + 45 lab hours per term)

DA 1508/1575 – Dental Radiology II 3

Previously DA 118T/DA 118L (Corequisite: DA 1512 + DA 1520/1570 + DA 1510/1580)

Presents production, processing and mounting of x-rays on patients. Focuses on: record keeping essential to x-ray procedures in the dental office, reading of dental radiographs, locating anatomical landmarks both maxillary and mandibular and the procedures and reasons for intra oral radiographs and extra oral radiographs included. (30 theory + 45 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

DA 1510/1580 – Clinical Application I 6
Previously DA 120T/120C (Corequisite: DA 1512 + DA 1520/1570 + DA 1508/1575)

Introduces clinical practice through student perceptorships utilizing four-handed dentistry at chair-side including expanded functions in general dentistry delegated to the DA as designated by the New Mexico Dental Practice Act (coronal polishing, pit and fissure sealants, fluoride application). (15 theory + 225 clinical hours per term)

DA 1512 – Dental Science II 3
Previously DA 112 (Corequisite: DA 1520/1570 + DA 1508/1575 + DA 1510/1580)

Presents microbiology as it relates to control of infection and disease in dental environments and teaches oral pathology, nutrition and pharmacology as they relate to dentistry. Also included are applied psychology and communication skills with dental patients and co-workers.

DA 1520/1570 – Chairside Procedures II 3
Previously DA 116T/116L (Corequisite: DA 1512 + DA 1570 + DA 1508/1575 + DA 1510/1580)

Provides advanced knowledge of dental assisting functions including hands-on training, instrumentation, chair-side techniques and patient management. Includes coronal polishing, fluoride application, pit and fissure sealant application. (30 theory + 45 lab hours per term)

DA 2010/2080 – Clinical Application II 5
Previously DA 124T/124C (Prerequisite: DA 1510/1580. Corequisite: DA 2410/2470 + DA 2014)

Provides student internship in dental offices to practice utilization of four-handed techniques in expanded functions and dental specialties. This course further prepares the student to take the National Dental Assistant exam and the New Mexico State exam. (15 theory + 190 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

DA 2014 – Dental Specialties 3
Previously DA 114 (Corequisite: DA 2410/2470 + DA 2010/2080)

Provides introduction into dental specialties with an emphasis on hands-on practice of DA functions that can be delegated in dental specialty offices.

DA 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)

Previously DA 296

Explores various topics of interest in the field of Dental Assistants.

DA 2410/2470 – Dental Practice Management and Patient Care 2
Previously DA 110T/110L (Pre- or corequisite: COMM 2221. Corequisite: DA 2014 + DA 2010/2080)

Provides basic skills and background in various aspects of dental reception functions and office management procedures to include: computer management, oral and written communication, bookkeeping skills, case presentation and financial arrangements, banking procedures and computing salaries and tax records. Emphasis on patient care including communication techniques, interviewing skills and conflict management. Includes clinical observation and application of experiences. (15 theory + 45 lab hours per term)

DETC – Diesel Equipment Technology Courses School of Applied Technologies

DETC 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

DETC 1110 – Introduction to Diesel Technology 4
Previously DETC 110L (Recommended prerequisite: RDG 0750 + MATH 0750; or appropriate placement scores, see page 12)

Introduces theory of operation and basic service procedures for heavy equipment/heavy duty truck powertrain and chassis systems. Includes general industry orientation, shop/vehicle safety, tool care and use and repair information retrieval. (30 theory + 75 lab hours per term)

DETC 1120 – Heavy Duty Brake Systems 4
Previously DETC 121L (Recommended prerequisite: RDG 0750 + MATH 0750; or appropriate placement scores, see page 12)

Introduces the principles of hydraulic and air brake operation and design. Develops skills in the diagnosis and repair of standard and anti-lock brake systems. (30 theory + 75 lab hours per term)

DETC 1130 – Heavy Duty Suspension and Steering 4
Previously DETC 122L (Recommended prerequisite: RDG 0750 + MATH 0750; or appropriate placement scores, see page 12)

Presents theory, repair and service on a variety of heavy duty suspension and steering systems. Includes steering gear repair, power steering systems, kingpin service, air suspension systems and steering and axle alignment. (30 theory +75 lab hours per term)

DETC 1140 – Manual Shift Transmissions and Axles 4
Previously DETC 123L (Recommended prerequisite: RDG 0750 + MATH 0750; or appropriate placement scores, see page 12)

Introduces the principles of operation and design for a variety of single- and twin-countershaft transmissions, clutches, drive axles and drive lines. Develops skills in the diagnosis, service and repair of drivetrain components. (30 theory + 75 lab hours)

DETC 1150 – Equipment Electrical Systems 4
(Recommended prerequisite: RDG 0750 + MATH 0750; or appropriate placement scores, see page 12)

Presents critical skills necessary for identifying and correcting problems found in diesel equipment electrical/electronic systems. Includes operating theories and principles, DVOM and analog meter use, voltage drop testing, wiring schematic interpretation and electrical troubleshooting procedures. (30 theory + 90 lab hours)

DETC 1210 – Heavy Duty Engine Repair 4
Previously DETC 131L

Presents internal combustion engine theory, engine components and designs, engine overhaul procedures and precision measurement. Includes essential engine testing and identification of needed repairs. (30 theory + 90 lab hours per term)

DETC 1220 – Automatic Transmissions and Hydraulics 4
Previously DETC 132L

Presents the principles of operation of heavy-duty automatic transmissions and hydraulic systems. Develops skills in the service, diagnosis and repair of automatic transmissions, hydraulic pumps, valves, actuators and controls. (30 theory + 90 lab hours per term)

DETC 1230 – Medium/Heavy Duty Air Conditioning and Heating 3
(Prerequisite: DETC 1150 or department approval)

Covers testing, evacuating and charging air conditioning systems while maintaining an awareness of potential environmental concerns caused by medium/heavy equipment refrigerants. Addresses cooling and heating diagnosis, climate control trouble shooting and component repair. (15 theory + 75 lab hours per term)

DETC 1240 – Diesel Equipment Electronic Systems 4
(Prerequisite: DETC 1110 + DETC 1150; or department approval)

Builds on skills developed in DETC 1150. Covers testing and diagnostic procedures in more complex diesel equipment electronic systems. Includes lighting circuits, body computers and sensors, electronic control modules use of lab scopes and scan tools. (30 theory + 75 lab hours)

DETC 2096, 2196...2996 – Special Topics 1–6
(all courses ending in 96 are topics courses)
Previously DETC 296 (Prerequisite: department approval)

Provides an in-depth study of advanced techniques.

DETC 2110 – Preventive Maintenance 4
Previously DETC 175L

Presents theory and application of basic preventive maintenance operations. Includes under-vehicle and under-hood service procedures, repair information retrieval and proper use and care of service equipment. (30 theory + 75 lab hours per term)

DETC 2120 – Diesel Engine Performance 4
Previously DETC 233L

Presents theory of operation of diesel fuel injection and electronic engine management systems. Includes service, diagnosis and repair of a variety of systems found on modern heavy-duty diesel engines. (30 theory + 90 lab hours per term)

DETC 2197 – Independent Study Variable
Previously DETC 297 (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

DETC 2999 – Diesel Equipment Technology Capstone Course 1
Previously DETC 295 (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. (Taken during student's last term).

DMS – Diagnostic Medical Sonography Courses School of Health, Wellness & Public Safety

DMS 1010 – Introduction to Diagnostic Medical Sonography 1
Previously DMS 101 (Prerequisite: department approval + MATH 1315. Pre- or corequisite: BIO 2210/2292 + COMM 2221 + ENG 1101 + PHYS 1510/1592. Corequisite: DMS 1085 + 1093 + 1112 + 1192 + 1075 + HLTH 1001)

Presents general information about the profession, credentialing, work environments and relationship to other health care professionals. Medical ethics, pertinent legal issues/principles, professional scopes of practice, trends in health care systems. Infection control, universal precaution procedures, pertinent patient care procedures, principles of psychological support are taught. Trends in health care systems, professional journals, conferences, lectures, in house education offerings, professional organizations and resources.

DMS 1075 – Intro to Sonographic Physics 2
Previously DMS 113L (Corequisite: DMS 1010 + 1085 + 1093 +1112 +1192)

Introduces the basic principles of acoustical physics, sound production propagation, hemodynamics and basic Doppler principles. Presents the basics of ultrasound instrument operation, transducer selection and control options. Lab provides the opportunity to apply theory principles in self-directed learning activities and group problem-solving to reinforce theoretical principles. (15 theory + 45 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

DMS 1085 – Sonographic concepts 3
Previously DMS 1070 (Corequisite: DMS 1010 + 1075 + 1093 + 1112 + 1192)

Introduces medical and sonographic terminology, pertinent clinical and diagnostic protocols related to specific disease conditions. Presents the study of sonographic examinations of abdomen, superficial structures, non-cardiac chest and the gravid and non-gravid pelvis with the focus on normal sonographic structure. This lab provides scanning using real time equipment and simulations. (30 theory + 45 lab hours per term)

DMS 1093 – Sonographic Concepts Lab 1
Previously DMS 1070 (Corequisite: DMS 1010 + 1075 + 1085 + 1112 + 1192)

Provides the opportunity to practice and apply the concepts in DMS 1085 using live scanning. (45 lab hours per term)

DMS 1096, 1196...1996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
Previously DMS 296

Explore various topics of interest in the field of sonography.

DMS 1112 – Sonographic Anatomy 2
Previously DMS 1012 (Corequisite: DMS 1010 + 1075 + 1085 + 1093 + 1192)

Presents cross-sectional anatomy and embryology as it relates to sonographic anatomy. Correlation between cross-sectional anatomy and ultrasound, CT and MRI images. Presentation of cross-sectional structure.

DMS 1192 – Sonographic Anatomy Lab 1
Previously DMS 1072 (Corequisite: DMS 1010 + 1075 + 1085 + 1093 + 1112)

Presents sonographic anatomy using live scanning of models. (45 lab hours per term)

DMS 1503 – DMS Pathophysiology I 3
Previously DMS 103 (Prerequisite: DMS 1010 + 1075 + 1085 +1093 + 1112 + 1192 + HLTH 1001. Pre- or corequisite: BIO 2310/2392. Corequisite: DMS 1511 + 1590 + 1575)

Presents pathophysiology of liver, biliary system, pancreas, urinary tract, adrenal glands, spleen, prevertebral vessels, peritoneal cavity, gastrointestinal tract and anterior abdominal wall. Abnormal conditions including iatrogenic, degenerative, inflammatory, traumatic, neoplastic, infectious, obstructive, congenital, metabolic, immunologic. Physiology includes normal and abnormal blood flow dynamics.

DMS 1511 – General Sonography I 2
Previously DMS 120 (Prerequisite: DMS 1010 + 1075 + 1085 + 1093 + 1112 + 1192. Corequisite: DMS 1503 + 1595 +1590)

Presents sonographic examinations of liver, biliary system, pancreas, urinary tract, adrenal glands, spleen, prevertebral vessels, peritoneal cavity, gastrointestinal tract, non cardiac chest, neck, breast, scrotum, prostate, anterior abdominal wall, extremities, brain, spinal cord, pediatrics. Presents normal physiology, measurement techniques and Doppler applications. (15 theory + 45 lab hours per term)

DMS 1575 – Sonographic Physics I 2
Previously DMS 130L (Prerequisite: DMS 1010 + 1075 + 1085 + 1093. + 1112 + 1192. Corequisite: DMS 1503 + 1511 + 1590)

Presents acoustical physics, sound production and propagation, interaction of sound and matter, instrument options, transducer selection, principles of ultrasound instruments and modes of operation, operator control options. This course also includes introduction to Doppler principles and operation. Lab allows students to apply principles to practice in case-based learning activities. (15 theory + 45 lab hours per term)

DMS 1590 – Clinical Sonography I **4**

Previously DMS 120C (Prerequisite: DMS 1010 + 1075 + 1085 + 1093 + 1112 + 1192 + HLTH 1001. Corequisite: DMS 1503 + 1511 + 1575)

Provides supervised clinical experiences in area hospitals and health care facilities related to concepts presented in DMS 1511, 1503 and 1575. (180 clinical hours)

DMS 2003 – DMS Pathophysiology II **3**

Previously DMS 203 (Prerequisite: DMS 1503 + 1511 + 1575 + 1590. Corequisite: DMS 2075 + 2092 + 2090)

Presents pathophysiology of the gravid and non-gravid pelvis. The focus is on abnormal conditions. Iatrogenic, degenerative, inflammatory, traumatic, neoplastic, infectious, obstructive, congenital, metabolic, immunologic conditions. Abnormal patterns in pregnancy.

DMS 2075 – Sonography Physics II **2**

Previously DMS 230L (Prerequisite: DMS 1503 + 1511+ 1575 + 1590 . Corequisite: DMS 2003 + 2090 +2092)

Presents the physics and principles of Doppler techniques, Doppler methods of flow analysis, techniques for recording static and dynamic images, acoustical artifacts. Biologic effects in ultrasound, pertinent invitro and in-vivo studies. Recent developments in Sonography, research statistics and design. Lab includes use of ultrasound equipment and simulator to apply theory to practice. (15 theory + 45 lab hours per term)

DMS 2090 – Clinical Sonography II **5**

Previously DMS 2080 (Prerequisite: 1503 + 1511 + 1575 + 1590. Corequisite: DMS 2003 + 2075 + 2092)

Provides supervised clinical experiences in area hospitals and health care facilities related to concepts presented in DMS 2092, 2003 and 2075. (225 clinical hours)

DMS 2092 – Sonography II **2**

Previously DMS 220 (Prerequisite: DMS 1503 + 1511+ 1575 + 1590. Corequisite: DMS 2003 + 2075 + 2090)

Presents sonographic examination of gravid and non-gravid pelvis including Doppler. Focuses on normal anatomic structures including reproductive system, pelvic muscles, suspensory ligaments, peritoneal spaces, pelvic vasculature, normal sonographic appearance of fetal and maternal structures including pertinent measurement techniques. (90 lab hours per term)

DMS 2096, 2196…2996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

DMS 2590 – General Sonography Internship **10**

Previously DMS 260C (Prerequisite: DMS 2003 + 2075 + 2090 + 2092. Corequisite: DMS 2592)

Provides supervised clinical experiences within a health care setting. (450 clinical hours per term)

DMS 2592 – Clinical Seminar **1**

Previously DMS 270L (Prerequisite: DMS 2003 + 2075 + 2090 + 2092. Corequisite: DMS 2590)

Presents synopsis of normal anatomy and pathology of superficial structures and sonography of the pediatric patient. Provides weekly case study discussions and conferences. Review of program courses and preparation for National Registry examinations. (45 lab hours per term)

ECM – E-Commerce Courses School of Business & Information Technology

(For ECM courses, see BA courses on page 211.)

Course Subject Code/Course Number – Course Name Credit Hours

ECME – Early Childhood Multicultural Education Courses School of Communication, Humanities & Social Sciences

ECME 1102 – Professionalism **2**

Previously ECME 2202 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Provides a broad-based orientation to the field of early care and education. Introduces early childhood education history, philosophy, ethics and advocacy as well as exploration of basic early childhood systems. Examines professional responsibilities.

ECME 1104 – Child Growth, Development, and Learning **3**

Previously ECME 104 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Presents growth, development and learning of young children, prenatal through age eight. Provides students with theoretical and practical knowledge of how young children grow, develop and learn as well as an understanding of the adult's role in supporting these factors.

ECME 1108 – Health, Safety and Nutrition **2**

Previously ECME 108 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Provides information related to standards and practices that promote children's physical and mental well-being, sound nutritional practices and maintenance of safe learning environments. Examines nutritional factors important to children's total development.

ECME 1109 – Curriculum Development and Implementation I **3**

Previously ECME 109 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12. Pre- or corequsite: ECME 1104. Corequisite: ECME 1190)

Focuses on developmentally appropriate content in early childhood programs and curriculum development for ages birth through eight.

ECME 1190 – Curriculum Development and Implementation I Practicum **2**

Previously ECME 109C (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12. Pre- or corequsite: ECME 1104. Corequisite: ECME 1190)

Provides opportunities for students to apply knowledge gained from ECME 1109: Curriculum Development and Implementation I in a practicum setting. (45 hours per term) (1theory/1 lab)

ECME 2096, 2196…2996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ECME 2201 – Introduction to Reading and Literacy Development **3**

Previously ECME 201 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12. Pre- or corequisite: ECME 1104)

Explores the foundations in developing literate children from birth through age eight through reading and writing processes.

ECME 2204 – Assessment of Children and Evaluation of Programs **3**

Previously ECME 204 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12. Pre- or corequisite: ECME 1104. Corequisite: ECME 1190)

Focuses on appropriate programming and assessment of typical and atypical young children, the role of parents in designing programs, the role of assessment in designing curricula and the role of language and culture in assessment.

ECME 2206 – Family and Community Collaboration I 3

Previously ECME 206 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12. Pre- or corequisite: ECME 1104)

Examines the involvement of families from diverse cultural and linguistic backgrounds in early childhood programs. Discusses establishing collaborative relationships with parents and all involved in child's life and strategies for communication.

ECME 2212 – Curriculum Development and Implementation II 3

Previously ECME 212 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12. Pre- or corequsite: ECME 1104. Corequisite: ECME 2290)

Focuses on the learning environment and the implementation of curriculum allowing students to use their knowledge of content, developmentally appropriate practices and language and culture to design and implement experiences and learning for young children, birth through eight, including those with special needs.

ECME 2214 – Guiding Young Children 3

Previously ECME 213 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12. Pre- or corequisite: ECME 1104)

Explores various theories of child guidance and the practical application of each. Provides developmentally appropriate methods for guiding children and for facilitating positive social interactions.

ECME 2220 – Program Management 3

Previously CDV 2207 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12)

Emphasizes the technical knowledge necessary to develop and maintain an effective early care and education program. Focuses on sound financial management and vision, the laws and legal issues that affect programs and state and national standards such as accreditation.

ECME 2222 – Effective Program Development for Diverse Learners and their Families 3

(Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12. Pre- or corequisite: ECME 1104. Corequisite: ECME 2490)

Addresses the role of a director/ administrator in the implementation of family-centered programming that includes individually appropriate and culturally responsive curriculum in a healthy and safe learning environment for all children and their families.

ECME 2224 – Professional Relationships 3

(Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12. Corequisite: ECME 2590)

Addresses staff relationships that will foster diverse professional relationships with families, communities and boards. Topics of staff recruitment, retention, support and supervision will lay the foundation for positive personnel, family and community relationships.

ECME 2230 – Infant-Toddler Growth, Development and Learning 3

(Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12. Corequisite: ECME 2690)

Provides both basic knowledge of typically and atypically developing young children from the prenatal period to 36 months and a foundational understanding for the promotion of the health, well-being and development of all infants and toddlers within the context of family, community and cultural environments. (3 theory)

ECME 2232 – Building Relationships with Infants and Families 3

(Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12. Corequisite: ECME 2790)

Uses relationship based approaches to define and implement basic elements of relationship building with families and colleagues with a goal of quality programming for infants, toddlers.

Course Subject Code/Course Number – Course Name Credit Hours

ECME 2234 – Caregiving for Infants and Toddlers 3

(Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12)

The course is intended to assist students to define and implement basic elements of quality programming for all infants, toddlers in safe, healthy, responsive caring environments.

ECME 2250 – Foundations of Early Childhood Education 3

Previously ECME 250 (Prerequisite: Acceptance into the alternative licensure program)

Introduces the historical, political, cultural and philosophical contexts of early childhood education. Surveys traditional, current and innovative models and theories of early childhood education in all learning areas including mathematics and science. Explores current issues and future trends in society and education that directly impact contemporary early childhood programs. Examines the personal qualities of students in relation to the expectations of the field of early childhood education. Requires a field experience of 10 hours in an approved early childhood educational setting as part of this course.

ECME 2252 – Teaching Young Children 3

Previously ECME 252 (Prerequisite: Acceptance into the alternative licensure program)

Focuses on the application of theories of teaching and guidance to apply in multicultural early childhood classrooms. Explores theoretical concepts and principles and identifies ways to integrate these into the early childhood classroom through the use of developmentally appropriate methods and strategies in all areas including mathematics and science. Requires a field experience of 10 hours in an approved early childhood educational setting as part of the course.

ECME 2254 – Developmentally Appropriate Early Childhood Multicultural Curriculum 3

Previously ECME 254 (Pre- or corequisite: ECME 2252)

Focuses on the design of curricula that integrate language arts, mathematics, science and expressive arts in a holistic framework that is developmentally and culturally appropriate. A field experience of 10 hours in an approved early childhood educational setting is required as part of this course.

ECME 2260 – Observation and Assessment of Young Children 3

Previously ECME 260 (Pre- or corequisite: ECME 2252)

Investigates formal and informal methods of assessing student learning including observational techniques. Students will learn how to use information gathered through observation and assessment to plan and modify instruction in all areas including mathematics and science. A field experience of 10 hours in an approved early childhood educational setting is required as part of this course.

ECME 2262 – Emergent Literacy: Theory and Principles of Multicultural Emergent Literacy 3

Previously ECME 262 (Pre- or corequisite: ECME 2252)

Explores the foundations of literacy and the reading process and acquire the theoretical knowledge needed to guide the literacy development of young children. Students will examine the principles of reading/language arts instruction, meeting New Mexico State standards, oral language, emergent literacy, vocabulary-concept development, constructing meaning, technology and literacy learning and written expression. A field experience of 10 hours in an approved early childhood educational setting is required as part of this course.

ECME 2264 – Emergent Literacy: Methods and Materials for Early Literacy Instruction 3

Previously ECME 264 (Pre- or corequisite: ECME 2262)

Applies theoretical knowledge needed to guide the literacy development of young children. Explores the developmental influences on early learning, examines the role of language in supporting literacy development students and identifies methods and materials that support early literacy development. Explores research-based early literacy activities such as book reading, writing activities using invented spelling, storytelling as well as other activities that foster phonemic awareness, print concept, phonic skills, vocabulary development and comprehension. A field experience of 10 hours in an approved early childhood educational setting is required as part of this course.

ECME 2290 – Curriculum Development and Implementation Practicum II 2

Previously ECME 109C (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12. Pre- or corequisite: ECME 1104. Corequisite: ECME 1109)

Provides opportunities for students to apply knowledge gained from ECME 2212: Curriculum Development and Implementation II in a practicum setting. (45 hours per term) (1theory/1 lab)

ECME 2390 – Early Childhood Classroom Field Experience 3

Previously ECME 298L (Prerequisite: Acceptance into alternative licensure program and department approval)

Provides advanced supervised fieldwork experience with particular emphasis on planning and implementing integrated programs. Requires students to meet competencies as defined by the NM Public Education Department through a minimum of 160 contact hours in an approved early childhood educational setting.

ECME 2490 – Effective Program Development for Diverse Learners and their Families Practicum 2

(Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12. Corequisite: ECME 2222)

Provides opportunities for students to apply knowledge gained from ECME 2222: Curriculum for diverse learners and their families in a practicum setting. (1 theory + 1 lab hour per term)

ECME 2590 – Professional Relationship Practicum 2

(Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12. Corequisite: ECME 2224)

Provides opportunities for students to apply knowledge gained from ECME 2224. Professional relationships in a practicum setting. (1 theory + 1 lab hour per term)

ECME 2690 – Infant-Toddler Growth, Development and Learning Practicum 2

(Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12. Corequisite: ECME 2230)

Provides application of knowledge gained from ECME 2690: Infant-Toddler Growth, Development and Learning. (1 theory + 1 lab hour per term)

ECME 2790 – Building Relationships with Infants and Families Practicum 2

(Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12. Corequisite: ECME 2232)

Provides application of knowledge gained from ECME 2232: Building Relationships with Infants and Families. (1 theory + 1 lab hour per term)

ECON – Economics Courses School of Communication, Humanities & Social Sciences

ECON 1096, 1196…1996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ECON 1101 – Introduction to Economics 3

Previously ECON 101 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Introduces the theories, history and relationships of economics.

ECON 2096, 2196...2996 – Special Topics 1-6

(all courses ending in 96 are topics courses)

Previously ECON 296 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents various topics. See *Schedule of Classes*.

ECON 2200 – Macroeconomics 3

Previously ECON 200 (Prerequisite: RDG 0950 + MATH 0930; or appropriate placement scores, see page 12)

Surveys theories and problems of economic policy, including the contrast of the Classical and Keynesian models, money and banking, inflation, unemployment and economic growth.

ECON 2201 – Microeconomics 3

Previously ECON 201 (Prerequisite: RDG 0950 + MATH 0930; or appropriate placement scores, see page 12)

Emphasizes laws of demand and supply and the workings of price systems in a free market. Applies basic economic theories to problems of production, monopoly, taxation, consumer welfare and the environment.

EDT – Engineering Design Technology Courses School of Applied Technologies

EDT 1001 – Introduction to Engineering Technology 3

Previously EDT 102

Introduces modern engineering design technology. Students will practice measurements techniques using metrology instrumentation, dimensional analysis, unit conversions, research methods and reporting. Technical annotations and geometrics standards in modern industry will be presented. Safety and ethical issues will be discussed. (30 theory +45 lab hours per term)

EDT 1005 – Introduction to CAD 3

Previously EDT 103

Introduces elements of CAD using a design software package widely used by the industry. Students will obtain skills to generate, document, edit, dimension and plot 2-D technical drawings. (30 theory +45 lab hours per term)

EDT 1010 – Mechanical Design I 3

Previously EDT 104 (Pre- or corequisite: EDT 1005)

Introduces drafting techniques and engineering graphical standards used in preparation of technical drawings. Students will use conventional and CAD methods to produce component and/or assembly drawings. ANSI/ASME Standards will be emphasized. (30 theory +45 lab hours per term)

EDT 1015 – Intermediate CAD 3

Previously EDT 105 (Prerequisite: EDT 1005 or department approval)

Allows the students to acquire more advanced CAD skills. Techniques for producing, viewing and editing 2-D and 3-D drawings will be presented. The course is geared toward mechanical design. (30 theory +45 lab hours per term)

EDT 1020 – Mechanical Design II 3

Previously EDT 114 (Prerequisite: EDT 1005 + EDT 1010)

Allows students to advance their knowledge of view projections including auxiliary views and section views, tolerancing and dimensioning. Both 2-D and 3-D CAD tools will be used following each lecture to solve typical engineering design problems. (30 theory +45 lab hours per term)

EDT 1025 – Basic Electrical and Electronic Systems 3
Previously EDT 116 (Prerequisite: EDT 1005)

The course presents a basic overview of electrical and electronic theory and applications. Concepts include network analysis for several types of circuits such as DC, AC, filters and semiconductors. Communication and power distribution applications are discussed as well as digital logic and control circuits. Students will learn the symbolic representations of electrical and electronic components and devices and use CAD to draw diagrams of the types of circuits and applications discussed in class." (30 theory +45 lab hours per term)

EDT 1030 – Materials and Manufacturing Processes 3
Previously EDT 117

Introduces modern manufacturing processes and materials. Students will obtain knowledge in process and material selection, process planning, cost analysis, quality control, Design for Manufacturing and Assembly (DFMA) principles and industrial safety. (30 theory +45 lab hours per term)

EDT 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)
Presents various topics. See *Schedule of Classes*.

EDT 2001 – Applied Mathematics in Mechanics 3
Previously EDT 201 (Pre- or corequisite: MATH 1410. Corequisite: EDT 1001 or department approval)

Focuses on the application of mathematics in technical problem solving. Geometric relationships among points, lines and planes will be established for mathematical modeling. Selected topics in statics and dynamics, basic linkages and transmission will also be discussed. (30 theory +45 lab hours per term)

EDT 2005 – Advanced CAD/Solid Modeling 3
Previously EDT 205 (Prerequisite: EDT 1015 + EDT 1010)

Uses state-of-the-art parametric solid modeling software to generate realistic designs of subcomponents and assemblies with volume, mass and motion attributes. Volume, surface and edge representation of internal and external features will also enable production of working drawings and documentation directly from 3-D solid models. (30 theory +45 lab hours per term)

EDT 2010 – Tooling Design 3
Previously EDT 206 (Prerequisite: EDT 1001+ EDT 1010)

Focuses on tooling design processes and procedures. Students will design gages, jigs, fixtures and dies while learning principles of effective tolerancing, locating and clamping methods. (30 theory +45 lab hours per term)

EDT 2015 – Mechanics of Materials 5
Previously EDT 210 (Pre- or corequisite: EDT 2001 or department approval)

Presents an analytical approach to the principles and physical concepts of statics and strength of materials. Relationships between external force distribution and internal response, stress and strain will be formulated. Mechanical properties of materials will be evaluated in the laboratory. (45 theory +75 lab hours per term)

EDT 2020 – Design of Machine Elements 3
Previously EDT 215 (Prerequisite: EDT 1001 + EDT 1030. Pre- or corequisite: EDT 1020)

Produces computer aided designs of various machine elements such as bearings, pulleys and belts, chains, gears, shafts, keys, couplings, clutches, brakes, supports, fixed and removable fasteners. (30 theory +45 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

EDT 2025 – System Design 3
Previously EDT 221 (Prerequisite: EDT 2020 + EDT 1025; or department approval)

Allows students to design an electromechanical system, which reflects the know-how and learning experiences gained throughout the entire program. Fluids, pneumatics, piping, structural, welding and electrical/electronics drawing standards and related topics will be introduced. (30 theory +45 lab hours per term)

EDT 2030 – Geometric Dimensioning and Tolerancing (GDT) 3
Previously EDT 284 (Prerequisite: department approval)

Covers the latest standards for defining parts based on their function using ANSI/ASME Y14.5M symbols. Students will practice dimensioning and tolerancing of individual features of a part where the permissible variations relate to characteristics of form, profile, location, runout, orientation or interrelationships between features.

EDT 2095 – Cooperative Education 3
Previously EDT 299 (Prerequisite: department approval)

Provides the opportunity for the student to work for one term on a cooperative basis in an appropriate training program. The position is not paid.

EDT 2096, 2196...2996 – Topics 1-5
(all courses ending in 96 are topics courses)
Previously EDT 296 (Prerequisite: department approval)

Offers topics based upon requests from community and available instructors.

EDT 2097 – Independent Study 2-5
Previously EDT 297 (Prerequisite: department approval)

Allows the student and instructor define a specific problem directly related to the program in the area of student's interest. The student develops and executes a solution using analytical and drafting techniques appropriate to the problem. An oral presentation may be required.

EDT 2098 – Internships 3
Previously EDT 298 (Prerequisite: department approval)

Provides the opportunity for the student to work for one term on a cooperative basis in an appropriate training program. The position is not paid.

EDUC – Elementary Education Courses School of Communication, Humanities & Social Sciences

EDUC 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)
Presents various topics. See *Schedule of Classes*.

EDUC 1102 – Introduction to Teaching: Theory and Lab 4
(Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12)

Introduces students to the professional world of teaching. Provides knowledge about various issues and challenges that are important in teachers' everyday lives. The lab experience will afford students the opportunity to observe and learn teaching practices in real classroom environments. (45 lab hours per term) (3 credits theory/1 credit lab)

EDUC 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
Previously EDUC 296

EDUC 2097 – Independent Studies 1-6
Previously EDUC 297 (Prerequisite: department approval)
Studies a specific problem while working with assigned instructor.

EDUC 2190 – Supervised Field Experience 3
Previously EDUC 298L (Prerequisite: Acceptance into the alternative licensure program + department approval)

Emphasizes planning and implementing integrated programs in all areas, including math and science, in an advanced supervised fieldwork placement. Requires students to meet competencies as defined by the NM Public Education Department through a minimum of 160 contact hours in an approved early childhood educational setting. Entails a separate application process.

EDUC 2203 – Introduction to Classroom Management, Grades K – 5 3
Previously EDUC 203 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Introduces students to practical classroom rules and procedures. Teaches prospective teachers about classroom setup, cognitive learning styles, managing student behavior and working with diverse populations.

EDUC 2204 – Child Development 3
Previously EDUC 204 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12)

Serves either as an introduction in the area of human development ages birth to 19, or as a resource for students requiring a basic orientation with a practical emphasis.

EDUC 2205 – Introduction to Classroom Management, Grades 6 – 12 3
Previously EDUC 205 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12)

Introduces students to practical classroom environments and procedures in the secondary classroom, including classroom set-up, cognitive learning styles, managing student behavior and working with diverse populations. Offers various special topics in the field as elective hours. See *Schedule of Classes*.

EDUC 2207 – Educational Psychology 3
Previously EDUC 207 (Prerequisite: ENG 0750 + MATH 0930; or appropriate placement scores, see page 12)

Introduces the basic principles of learning, including cognition, motivation and assessment. Provides an important framework for thinking about learning and instruction in classrooms and how theories of learning are connected to classroom situations.

EDUC 2210 – Educational Assistant Assessment Portfolio Development 3
Previously EDUC 210

Provides an overview of how to develop a comprehensive professional portfolio inclusive of individual Educational Assistant's strengths and competence in education and philosophy, theory, ethics and standards. Documents professional experience. (30 theory + 45 clinical hours per term)

EDUC 2222 – Language Acquisition and Linguistics for Teachers 3
Previously EDUC 222 (Prerequisite: department approval)

Provides students with an overview of linguistics and an in-depth study of first and second language acquisition. Develops a strong basis for English as a Second Language teaching using observation, reading and a variety of activities.

EDUC 2224 – Sheltered English for Content Area Instruction 3
(Prerequisite: department approval)

This course is designed for students to gain an understanding of the goals, strategies and teaching techniques for Sheltered English in an ESL classroom.

Course Subject Code/Course Number – Course Name Credit Hours

EDUC 2250 – Foundations of Education 3
Previously EDUC 250 (Prerequisite: Acceptance into the alternative licensure program)

Introduces the basics of the teaching profession: surveys the complexities of teaching and learning in a diverse, multicultural contemporary United States, societal expectations of teachers, social problems that impact students, history and philosophy of education, the role of school's in today's society, school governance and the legal and ethical issues in education. Expects students will begin to articulate their own philosophy of education. Discusses the foundations and contemporary challenges of teaching Mathematical and Science concepts.

EDUC 2252 – Teaching and Learning Theory 3
Previously EDUC 252 (Pre- or corequisite: EDUC 2250 or SPED 2250)

Reviews the social, emotional, physical and cognitive development of the child from birth through adolescence. Examines researched methods and theories enabling teachers to become effective practitioners who are able to individualize instruction in order to meet the individual and diverse needs of students; explores brain-based learning, multi-sensory instruction, developmentally appropriate practice, multiple intelligences and learning styles.

EDUC 2260 – Fundamentals of Reading Instruction 3
Previously EDUC 260 (Pre- or corequisite: EDUC 2250 or SPED 2250)

Focuses on the fundamentals of teaching reading, the nature of the reading process and factors affecting the reading process. Addresses the principles, methods, materials and strategies for effective reading instruction and best practices.

EDUC 2262 – Methods and Materials for Reading Instruction 3
Previously EDUC 262 (Pre- or corequisite: EDUC 2260)

Focuses on the selection and use of materials and teaching strategies appropriate for students with specific learning characteristics. Examines and evaluates research on current methodological trends in reading instruction.

EDUC 2264 – Reading and Writing across the Curriculum in Secondary Education 3
Previously EDUC 264 (Prerequisite: EDUC 2250)

Provides an overview of literacy and language development and focuses on the development and implementation of an integrated curriculum approach that emphasizes the importance of reading and writing within the curriculum and across content areas. Expects students will explore and practice in the field alternative reading assessments (i.e., miscue analysis, rubrics, checklists, anecdotal records, portfolios and reading logs/journals.) Requires some field experience.

EDUC 2265 – Computers in Schools 3
Previously EDUC 265 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Explores constructivist-learning theory as it applies to educational technology as a tool in the learning environment and examines the impact of technology in relation to the changing role of the teacher. Designed for different levels of computer literacy from beginner to advanced.

EDUC 2272 – The Adolescent Learner 3
Previously EDUC 272 (Prerequisite: Acceptance into alternative licensure program)

Examines the cognitive, emotional, social, physical and moral development of adolescents and the educational implications of the developmental period of early adolescence. Focuses on applying what is known about this age group to models of effective teaching, learning and schooling. Emphasizes the role of teacher in promoting the healthy development of adolescents.

EDUC 2284 – Effective Teaching Methods and Strategies 3
(Prerequisite: EDUC 2250)

Demonstrates how to develop classroom procedures, routines and structures that lead to increased student learning and motivation. Explores pedagogy, methods and materials that support best practices in teaching and learning.

EDUC 2285 – Curriculum Development, Assessment and Evaluation 3
Previously EDUC 295 (Prerequisite: EDUC 2250)

Prepares students to plan effective instruction and to design and analyze meaningful assessments based on student needs and on district and state standards. Students will explore the construction and utilization of teacher-constructed and standardized tests. Students learn to gather data, report and communicate assessment results to students, parents and administrators in a variety of ways in an effort to meet diverse student needs. Students will be familiarized with local district's testing programs and will develop valid evaluation tools to measure student outcomes in all areas including mathematics and science.

ELEC – Electronics Courses School of Applied Technologies

ELEC 1001 – Electronics Fundamentals A 4
Previously ELEC 103A (Corequisite: ELEC 1010)

Covers the basic concepts of DC electronics with emphasis on Ohm's Law, Kirchhoff's Law, circuit analysis, component application and troubleshooting. Construct circuits from schematic diagrams and use multimeters in the lab. (30 theory hours + 90 lab hours per term)

ELEC 1005 – Electronics Fundamentals B 4
Previously ELEC 103B (Prerequisite: ELEC 1001 + ELEC 1010)

Covers the basic concepts of AC electronics with emphasis on Ohm's Law, Kirchhoff's Law, circuit analysis and component application. Construct, analyze and troubleshoot AC circuits with multimeters, oscilloscopes and function generators in the lab. (30 theory hours + 90 lab hours per term)

ELEC 1010 – Electronics Mathematics 4
Previously ELEC 104 (Prerequisite: MATH 0940 or appropriate placement scores, see page 12)

Includes selected topics from algebra, geometry and trigonometry that support the technologies programs. Also includes metric conversions, simultaneous linear equations, complex numbers, the impedance triangle and exponential and logarithmic functions.

ELEC 1015 – Digital Circuits I 3
Previously ELEC 105A

Provides analysis and design of combinational logic circuits using Boolean algebra, Karnaugh maps and logic diagrams. Laboratory experiments emphasize practical application of the concepts taught. Student will design, wire, troubleshoot and demonstrate combinational logic circuits. Students will be introduced to J-K flip flops in this course. (30 theory hours + 45 lab hours per term)

ELEC 1020 – Digital Circuits II 3
Previously ELEC 105B (Prerequisite: ELEC 1015)

Provides analysis and design of sequential logic circuits using timing diagrams, state tables and next state analysis. Flip-flops, counters, shift registers, timers and microprocessor are studied and methods of fault analysis and troubleshooting techniques. Experiments emphasize practical application of concepts taught and require the student to wire, design, troubleshoot and demonstrate sequential logic circuits. An introduction to microprocessor fundamentals ends the course. (30 theory hours + 45 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

ELEC 1025 – Soldering Techniques 3
Previously ELEC 275L

Covers through hole and surface mount technology (SMT), including Ball Grid Array (BGA), using the latest high reliability techniques. Provides opportunity to achieve the IPC J-STD 001 hand soldering certification and the IPC 610-A soldering inspection certification. (30 theory hours +45 lab hours per term)

ELEC 1030 – Soldering Recertification 2
(Prerequisite: ELEC 1025 or department approval)

This course provides recertification for IPC 610 D acceptability and IPC J-Std Rev. D, soldering requirements of electrical and electronic assemblies. A review of IPC 610 standards of acceptance of electronic assemblies, as well as a review of IPC J-STD-001 standards of through hole and surface mount technology (SMT) of soldered electrical and electronic assemblies is done to meet the needs of industry quality assurance. ROHS and WEEE compliance regulations are covered for certification also. (30 theory hours + 7.5 lab hours per 7.5 week term)

ELEC 1096, 1196...1996 – Special Topics 2–8
(all courses ending in 96 are topics courses)
Previously ELEC 296

The topics depend on the requests from the community.

ELEC 2001 – Semiconductor Devices 6
Previously ELEC 114L (Prerequisite: ELEC 1005)

Introduces semiconductor devices, diodes, transistors, op-amps and JFETS and their application in simple power supplies and amplifiers. Students construct, analyze and troubleshoot semiconductor circuits. (60 theory hours + 90 lab hours per term)

ELEC 2005 – Electromechanical Devices 6
Previously ELEC 118L (Prerequisite: ELEC 1005 + ELEC 1020)

Presents theory and application of mechanical devices and their control circuits. Includes hydraulics, pneumatics, vacuum, AC and DC motors, stepper motors and servomechanisms. Students assemble, operate and troubleshoot small-scale electromechanical systems. (60 theory hours + 90 lab hours per term)

ELEC 2010 – Intro to Embedded Systems—Microcontrollers 4
Previously ELEC 203L (Prerequisite: ELEC 2005)

Focuses on programming an embedded system in a Windows environment. Programs written in Assembly Language are assembled to process instructions and data for controlling various I/O functions. Emphasis is given to a final I/O project involving input sensors (transducers), A/D converters, D/A converters and output devices (actuators). (30 theory hours + 90 lab hours per term)

ELEC 2015 – Analog Circuits 4
Previously ELEC 205L (Prerequisite: ELEC 2001)

Covers circuitry involved in an analog system. Introduces discrete transistor circuits and classes of operation. Presents signal generation and active filters using operational amplifiers. Reviews the fundamentals of modulation and demodulation. (30 theory hours + 90 lab hours per term)

ELEC 2020 – Upgrading and Repairing PCs 3
Previously ELEC 217

This course maps fully to CompTIA's new 2006 A+ Exam objectives. The course is designed to be a complete, step-by-step approach for learning the fundamentals of supporting and troubleshooting computer hardware. (30 theory hours + 45 lab hours per term)

ELEC 2025 – Advanced Upgrading and Repairing PCs **3**

Previously ELEC 221 (Prerequisite: ELEC 2020)

This course maps fully to CompTIA's new 2006 A+ Exam objectives. The course is designed to be a complete, step-by-step approach for learning the fundamentals of supporting and troubleshooting computer software. (30 theory hours + 45 lab hours per term)

ELEC 2030 – Electronics Refresher **3**

Previously ELEC 279 (Prerequisite: completion of an electronics program or department approval)

Reviews electronics fundamentals, including basic components, semiconductors, op-amps, digital electronics and microprocessors.

ELEC 2095 – Cooperative Education **3**

Previously ELEC 299 (Prerequisite: department approval)

Provides an opportunity for the student to work for one term on a cooperative basis in an appropriate training program. The position is paid.

ELEC 2096, 2196...2996 – Special Topics **2–8**

(all courses ending in 96 are topics courses)

Previously ELEC 296

The topics depend on the requests from the community.

ELEC 2097 – Independent Study **2–8**

Previously ELEC 297 (Prerequisite: department approval)

Allows the student to investigate and solve a problem. The student designs the solution using a combination of techniques.

ELEC 2098 – Internship **3**

Previously ELEC 298 (Prerequisite: department approval)

Provides an opportunity for the student to work for one term on a cooperative basis in an appropriate training program. The position is not paid.

ELEM – Elementary Education Courses School of Communication, Humanities & Social Sciences

ELEM 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ELEM 1128 – Directed Experience with Children for Auxiliary Personnel: Level I **2**

Previously ELEM 128 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12. Corequisite: ELEM 1189 + ELEM 2000)

Provides classroom experience to adults working with children. Develops skills in the theory and practice of accommodating the learning styles of children.

ELEM 1189 – The Paraprofessional in the Classroom **2**

Previously ELEM 192

Provides students with the practical and theoretical knowledge of the role of the educational paraprofessional.

ELEM 2096, 2196…2996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ELEM 2200 – Directed Experience with Children for Auxiliary Personnel: Level II **2**

Previously ELEM 200 (Corequisite: ELEM 1128)

Provides the sequel necessary to extend skills introduced in ELEM 1128 and the opportunity for students to initiate extensive development of activities, classroom management and teacher skills.

Course Subject Code/Course Number – Course Name Credit Hours

ELEM 2205 – Balanced Literacy **2**

Previously ELEM 205 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12. Recommended prerequisite: IT 0850)

Introduces the elements of a balanced literacy. Provides strategies to teach reading and writing in a balanced framework.

ELEM 2233 – Language Arts Methods for Paraprofessionals **3**

Previously ELEM 233 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12)

Introduces language arts methods appropriate for educational assistants working in an elementary school setting. Gives particular attention to language acquisition, observation of children's language, planning language experiences for children and the role of the adult in children's language development.

ELEM 2261 – Mathematics Methods for Paraprofessionals **3**

Previously ELEM 261(Prerequisite: RDG 0750 + ENG 0750 + MATH 0750; or appropriate placement scores, see page 12)

Provides hands-on experience with materials appropriate for educational assistants in elementary school mathematics. Focuses on diagnosing students' understanding so that proper activities can be assigned for problem solving as well as drill and practice.

ELTR – Electrical Trades Courses School of Applied Technologies

ELTR 1005 – Electrical Theory I **4**

Previously ELTR 101 (Prerequisite: RDG 0750 + MATH 0750; or appropriate placement scores, see page 12. Pre- or corequisite: ELTR 1010)

Covers the basic concepts of DC and AC theory with emphasis on electron theory, units of electrical measurement, NEC terminology and selection of branch circuit conductors.

ELTR 1010 – Electrical Math I **3**

Previously ELTR 102 (Prerequisite: RDG 0750 + MATH 0750; or appropriate placement scores, see page 12; or department approval)

Applies basic arithmetic functions, electrical formulas, calculations of material and circuit load requirements, rules for series, parallel and combination circuits and mechanical work and power.

ELTR 1092 – Electrical DC/AC Lab **3**

Previously ELTR 103L (Pre- or corequisite: ELTR 1005 + ELTR 1010; or department approval)

Emphasis is placed on safety. Covers electrical circuitry, meters, power sources, conductors, insulators, reactive circuits and application of the National Electrical Code. (112.5 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

ELTR 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ELTR 1192 – AC Circuitry, Motors, Generators **3**

Previously ELTR 104L (Pre- or corequisite: ELTR 1005 + ELTR 1010 + ELTR 1092; or department approval)

Covers combination circuit analysis, RLC circuitry, DC/AC motors, generators, solid-state components, wiring methods for single pole and three-way switches and application of the National Electrical Code. Stresses safety. (112.5 lab hours per term)

ELTR 1205 – Blueprint Reading I **3**

Previously ELTR 112 (Pre- or corequisite: ELTR 1005 + ELTR 1010 + ELTR 1092; or department approval)

Provides instruction in reading and interpreting blueprints and specifications. Emphasizes terminology, symbols, notations, scaling, dimensioning and basic blueprint drawing techniques.

ELTR 1210 – Electrical Theory II **4**

Previously ELTR 113 (Pre- or corequisite: ELTR 1205 or department approval)

Covers the application of the National Electrical Code, local codes and regulations for installation of branch circuits, services, feeders, temporary services and associated materials and equipment for residential and light commercial applications.

ELTR 1292 – Residential Wiring Lab **3**

Previously ELTR 114L (Pre- or corequisite: ELTR 1205 + ELTR 1210; or department approval)

Covers safety, tools, materials, single pole switches, receptacles, overcurrent protection, three- and four-way switches, pilot switches, door chimes, dryer and range receptacles and swamp coolers, NEC requirements for light commercial applications. (112.5 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

ELTR 1392 – Residential Electrical Services **3**

Previously ELTR 115L (Pre- or corequisite: ELTR 1205 + ELTR 1210; or department approval)

Presents the study and building of residential services, installation of circuit panels, cutting and threading rigid conduit, hand bending and installation of EMT conduit in adherence to the National Electrical Code (112.5 lab hours per term)

ELTR 2005 – Electrical Theory III **4**

Previously ELTR 201 (Prerequisite: ELTR 1205 + ELTR 1210 + ELTR 1292 + ELTR 1392; or department approval)

Introduces commercial/industrial aspects of electrical safety, tools, materials, power distribution systems, services, hazardous locations, intrusion/fire alarm systems in accordance with the National Electrical Code and blueprint reading.

ELTR 2010 – Electrical Motor Control Theory **3**

Previously ELTR 203 (Prerequisite: ELTR 1205 + ELTR 1210 + ELTR 1292 + ELTR 1392; or department approval)

Introduces students to the symbology and method of interpreting and drawing electromechanical motor control circuitry. NEMA standards are studied in detail.

ELTR 2092 – Industrial Motor Control Lab **3**

Previously ELTR 204L (Pre- or corequisite: ELTR 2010 or department approval)

Covers safety, electromechanical relay-type motor control, momentary push button switches, limit switches, proximity switches, pneumatic timers, forward/reverse starters, three-phase motors and National Electrical Code requirements. (112.5 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

ELTR 2096, 2196...2996 – Special Topics **1–6**

(all courses ending in 96 are topics courses)

Previously ELTR 296

Provides advanced, in-depth study and research into methods and current technological equipment used in the electrical trades.

ELTR 2192 – Industrial Power Distribution **3**

Previously ELTR 205L (Pre- or corequisite: ELTR 2005 or department approval)

Covers safety, use of mechanical and hydraulic benders, use of power threaders, knock-out punches, hammer drills and powder actuated fasteners, cable installation, wire pulling and the application of the NEC. (112.5 lab hours per term)

ELTR 2205 – Industrial Electrical Circuitry and Safety **3**

Previously ELTR 211 (Prerequisite: ELTR 2005 + ELTR 2010 + ELTR 2092 + ELTR 2192; or department approval)

Emphasizes safety principles and standards used in the electrical field and techniques for electrical troubleshooting.

Course Subject Code/Course Number – Course Name Credit Hours

ELTR 2210 – Programmable Logic Controller Theory **4**

Previously ELTR 212 (Pre- or corequisite: ELTR 2092; or ELEC 1001 + ELEC 1005 + ELEC 1015 + ELEC 1020; or department approval)

Introduces the principles of operation of a programmable controller, the numbering systems used by controllers, logic fundamentals and basics of programming.

ELTR 2292 – PLC Installation and Operation **3**

Previously ELTR 213L (Pre- or corequisite: ELTR 2210 + ELTR 2092; or ELTR 2210 + ELEC 1001 + ELEC 1005 + ELEC 1015 + ELEC 1020; or department approval)

Covers installation and programming of programmable logic controllers in accordance with manufacturer's specifications and NEC requirements. Covers simulating fundamental industrial control processes with various input and output devices. (112.5 lab hours per term)

ELTR 2392 – PLC Systems Operation and Troubleshooting **3**

Previously ELTR 214L (Pre- or corequisite: ELTR 2205 + 2210; or department approval)

Covers intricate industrial wiring, motor controls and motor troubleshooting, programmable controller timer, counter and sequence program operations and the troubleshooting techniques involved.

(112.5 lab hours per term)

ELTR 2501 – Electrical Wiring Circuitry **2**

Previously ELTR 170

Provides instruction in the interpretation, design and wiring of common switch, receptacle and related circuitry in accordance with the NEC and state and local codes.

ELTR 2505 – Conduit Hand Bending Fundamentals **1**

Previously ELTR 171L

Provides instruction in the computation and placement of conduit hand benders to bend and install conduit systems in accordance with the NEC and state and local codes. (7.5 theory + 30 lab hours per term)

ELTR 2510 – Industrial Motor Control Circuitry **2**

Previously ELTR 173

Presents the design, interpretation, drawing and installation of electromechanical relay type motor controls in accordance with the National Electrical Code.

ELTR 2515 – Industrial PLC Motor Control **3**

Previously ELTR 174L

Reviews with application the operation of programmable logic controllers, interpretation of PLC logic diagrams and the installation of programming of PLC systems in accordance with the National Electrical Code. (15 theory and 75 lab hours per term)

ELTR 2520 – Fiber Optical Cable Installation **2**

Previously ELTR 175

Introduces the installation of fiber optical cable in various systems. Emphasizes proper installation and termination.

ELTR 2525 – Electrical Journeyman Preparation **3**

Previously ELTR 176

Reviews the use and application of the National Electrical Code and the duties encountered by journeymen on typical job sites are reviewed in preparation for the New Mexico journeyman's electrical exam.

ELTR 2997 – Independent Study **Variable**

Previously ELTR 297 (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

ELTR 2999 – Electrical Trades Capstone Course 1

Previously ELTR 295 (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. (Taken during student's last term).

EMS – Emergency Medical Technician Courses School of Health, Wellness & Public Safety

EMS 1003 – EMS First Responder 4

Previously 1005 (Prerequisite: RDG 0750; or appropriate placement scores, see page 12. Pre- or corequisite: HLTH 1001)

This course provides the minimum level of training and certification for students wishing to assist in patient emergencies. Some EMS and fire services allow First Responder certification as a minimum requirement for employment; most prehospital services require EMT-Basic licensure. Students will be introduced to a variety of emergency skills and patient assessment strategies. This course is NOT a pre- or Corequisite for any other level of EMS training at CNM.

EMS 1053 – EMT-Basic Theory 6

(Prerequisite: RDG 0950 + MATH 0930; or appropriate placement scores, see page 12. Pre- or corequisite: HLTH 1001 + EMS 1093)

Provides the level of classroom instruction needed to begin a career in emergency medical services. Includes instruction on preparatory topics, airway management, patient assessment, medical emergencies, trauma emergencies, pediatric care and EMS operations. Meets or exceeds the cognitive objectives of the EMT-Basic National Standard Curriculum and incorporates the NM EMT-Basic Scope of Practice.

EMS 1093 – EMT – Basic Lab 2

(Pre- or corequisite: EMS 1053)

Students will practice simulated patient care exercises focused on splinting and bandaging, airway management, medication administration and patient assessment. Meets or exceeds the psychomotor objectives of the EMT-Basic National Standard Curriculum and incorporates the NM EMT-Basic Scope of Practice. At the completion of the EMT-Basic theory and lab courses, students are eligible to take the State of New Mexico EMT-Basic licensure examination. (90 lab hours per term)

EMS 1096, 1196...1996 – Special Topics 1-6

Previously EMS 296

Explores various topics of interest in the field of emergency medical services.

EMS 1413 – EMT-Intermediate Theory 4

(Prerequisite: MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; EMS 1053 + EMS 1093. Pre- or corequisite: EMS 1493 + 1713 + 1793)

Builds on material presented in the EMT-Basic course. Special emphasis is placed on teaching advanced assessment skills. In addition the course will expand significantly the number of medications a student can administer in an emergency setting as well as instruction on the theory IV fluid resuscitation. Meets or exceeds the cognitive objectives of the EMT-Intermediate I-85 National Standard Curriculum and incorporates the NM EMT-Intermediate Scope of Practice. A current EMT-B New Mexico State License or current EMT-B NREMT certification will be accepted for EMS 1053/1093.

EMS 1490 – EMT-Intermediate Hospital Clinical 1

Previously EMS 1290 (Prerequisite: department approval + EMS 1413 + EMS 1493)

Provides practice of intermediate skills in a hospital clinical setting. At the completion of the intermediate course series students are eligible to take the State of New Mexico EMT Intermediate licensure examination. Current EMT-B New Mexico State license and current proof of professional CPR are required.

Course Subject Code/Course Number – Course Name Credit Hours

EMS 1493 – EMT-Intermediate Lab 2

(Pre- or corequisite: EMS 1413 + 1713 + 1793)

Prepares students to participate in the clinical experience. Students will practice simulated patient care exercises focused on IV fluid therapy, medication administration and advanced patient assessment skills. Meets or exceeds the psychomotor objectives of the EMT-Intermediate I-85 National Standard Curriculum and incorporates the NM EMT-Intermediate Scope of Practice. (90 lab hours per term) (Criminal background/drug check required) **$ Additional fees published in the *Schedule of Classes*.**

EMS 1713 – ER Technician – Theory 1

(Prerequisite: MATH 0930 + RDG 0950; or appropriate placement scores, see page 12. Pre- or corequisite: EMS 1413 + EMS 1493 + EMS 1793)

Provides training to assist the staff of the emergency department in the care of critically ill and injured patients. Theory of wound care, suturing, splinting, IV therapy, catheter placement and other critical skills will be presented. A current EMT-I New Mexico State License or current EMT-I NREMT certification will be accepted for EMS 1413/1493.

EMS 1790 – ER Technician – Clinical 1

(Prerequisite: department approval + EMS 1713 + EMS 1793)

Provides practice of emergency room technician skills in the clinical setting. Current EMT-B/EMT-I New Mexico State license and current proof of professional CPR are required.

EMS 1793 – ER Technician – Lab 1

(Pre- or corequisite: EMS 1413 + 1493 + 1713)

Prepares students to participate in the clinical experience. Students will practice simulated patient care exercises focused on wound care, suturing, splinting, IV therapy, catheter placement and other critical skills. (45 lab hours) (Criminal background/drug check required) **$ Additional fees published in the *Schedule of Classes*.**

EMS 2096, 2196…2996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

EMS 2103 – Human Systems, Pathophysiology and Development 3

(Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Pre- or corequisite: BIO 1410)

This course focuses on how common traumatic and medical emergencies affect normal anatomy and physiology for patients of all ages. This course complements other required EMS courses to show how both physical and drug intervention attempt to return a diseased or injured body to a normal physiologic state. Meets or exceeds the cognitive objectives of the EMT-Paramedic National Standard Curriculum and incorporates the NM EMT-Paramedic Scope of Practice.

EMS 2203 – Drug Calculations 1

Previously EMS 1012 (Prerequisite: MATH 0930 + RDG 0950; or appropriate placement scores, see page 12. EMS 1053 + EMS 1093. Pre- or corequisite: MATH 1315 or MATH 1415)

This course presents students with dosage calculation methods for enteral and parenteral medications, including intravenous therapy and pediatric dosages in the EMS environment. Focuses on those calculations used in an emergency situation in the prehospital setting. Meets or exceeds the cognitive objectives of the EMT-Paramedic National Standard Curriculum and incorporates the NM EMT-Paramedic Scope of Practice. A current EMT-B New Mexico State License or current EMT-B NREMT certification will be accepted for EMS 1053 + 1093.

EMS 2207 – Legal Issues and Report Writing 2

Previously EMS 1512 (Prerequisite: MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; EMS 1053 + EMS 1093. Pre- or corequisite: ENGL 1101 or ENG 1102 or ENG 1119; PHIL 2247)

Presents legal and ethical dilemmas for paramedic providers. The course will also review the aspects of documentation that can reduce the risk of legal litigation. Meets or exceeds the cognitive objectives of the EMT-Paramedic National Standard Curriculum and incorporates the NM EMT-Paramedic Scope of Practice. A current EMT-B New Mexico State License or current EMT-B NREMT certification will be accepted for EMS 1053 + 1093.

EMS 2213 – Endocrine and GI/GU Theory 1

Previously EMS 1515 (Prerequisite: MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; EMS 1053 + EMS 1093. Pre- or corequisite: EMS 2103 or BIO 2310)

Provides the level of classroom instruction needed to provide advanced care for patients with endocrine and GI/GU emergencies. Meets or exceeds the cognitive objectives of the EMT-Paramedic National Standard Curriculum and incorporates the NM EMT-Paramedic Scope of Practice. A current EMT-B New Mexico State License or current EMT-B NREMT certification will be accepted for EMS 1053 + 1093.

EMS 2217 – Pharmacology Theory 3

Previously EMS 1030 (Prerequisite: MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; EMS 1053 + EMS 1093. Pre- or corequisite: EMS 2103 or BIO 2310)

Provides understanding of how chemical agents act upon the body and the theoretical base for administering medications in the emergency setting. Includes pharmacokinetics, pharmacodynamics, therapeutic uses, adverse reactions, precautions and contraindications of medications used in the prehospital setting. Meets or exceeds the cognitive objectives of the EMT-Paramedic National Standard Curriculum and incorporates the NM EMT-Paramedic Scope of Practice. A current EMT-B New Mexico State License or current EMT-B NREMT certification will be accepted for EMS 1053 + 1093.

EMS 2223 – Advanced Trauma Theory 3

(Prerequisite: MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; EMS 1053 + EMS 1093. Pre- or corequisite: EMS 2103 or BIO 2310; EMS 2293)

Provides the level of classroom instruction needed to provide advanced care for trauma patients. Includes instruction on the theory of advanced airway management and IV fluid resuscitation. Meets or exceeds the cognitive objectives of the EMT-Paramedic National Standard Curriculum, Prehospital Trauma Life Support and incorporates the NM EMT-Paramedic Scope of Practice. A current EMT-B New Mexico State License or current EMT-B NREMT certification will be accepted for EMS 1053 + 1093.

EMS 2293 – Advanced Trauma Lab 2

(Prerequisite: MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; EMS 1053 + EMS 1093. Pre- or corequisite: EMS 2103 or BIO 2310 or EMS 2223)

Students will practice simulated trauma patient care. Provides training in the methods of vehicle extrication. Meets or exceeds the psychomotor objectives of the EMT-Paramedic National Standard Curriculum, Prehospital Trauma Life Support and incorporates the NM EMT-Paramedic Scope of Practice. Vehicle Extrication training also meets NFPA and IFSTA standards for Basic Vehicle Extrication. At the completion of the course students will receive PHTLS certification. Current EMT-B/EMT-I New Mexico State license or current EMT-B/EMT-I NREMT certification. **$ Additional fees published in the *Schedule of Classes*.**

Course Subject Code/Course Number – Course Name Credit Hours

EMS 2303 – Cardiovascular Theory 3

(Prerequisite: EMS 2203 + 2207 + 2213 + 2217 + 2223 + 2293 + departmental approval. Pre- or corequisite: EMS 2307 + 2313 + 2390 + 2393 + 2490)

Provides the level of classroom instruction needed to provide advanced care for cardiac patients. Includes instruction on the theory of 12-lead ECG interpretation. Meets or exceeds the cognitive objectives of the EMT-Paramedic National Standard Curriculum, Basic Life Support (BLS), Advanced Cardiac Life Support (ACLS) and incorporates the NM EMT-Paramedic Scope of Practice.

EMS 2307 – Respiratory Theory 2

(Prerequisite: departmental approval. Pre- or corequisite: EMS 2303 + 2313 + 2390 + 2393 + 2490)

Provides the paramedic student the skills to properly assess and treat a patient with various respiratory problems. The content will include anatomy and physiology from an EMS perspective.

EMS 2313 – Neurological Theory 2

(Prerequisite: departmental approval. Pre- or corequisite: EMS 2303 + 2307 + 2390 + 2393 + 2490)

Provides the level of classroom instruction needed to provide advanced care for neurological patients. Meets or exceeds the cognitive objectives of the EMT-Paramedic National Standard Curriculum and incorporates the NM EMT-Paramedic Scope of Practice.

EMS 2390 Hospital Clinical I 2

(Prerequisite: departmental approval. Pre- or corequisite: EMS 2303 + 2307 + 2313 + 2393 + 2490)

This course provides students with clinical time in local hospitals to administer medications, perform airway skills, perform venous access and assess patients of all age groups with various medical or traumatic conditions. This clinical will have an adult focus. (90 Clinical) (Criminal background/ drug check required) **$ Additional fees published in the *Schedule of Classes*.**

EMS 2393 – Paramedic Lab I 3

(Prerequisite: departmental approval. Pre- or corequisite: EMS 2303 + 2307 + 2313 + 2390 + 2490)

Students will practice simulated patient care related to second and third term semester paramedic courses. Students will develop treatment strategies to manage various medical and trauma emergencies. Meets or exceeds the psychomotor objectives of the EMT-Paramedic National Standard Curriculum, Basic Life Support (BLS) and Advanced Cardiac Life Support (ACLS). (135 lab hours) **$ Additional fees published in the *Schedule of Classes*.**

EMS 2490 – Prehospital Field Clinical I 3

Previously EMS 1098 (Prerequisite: departmental approval. Pre- or corequisite: EMS 2303 + 2307 + 2313 + 2390 + 2393)

Prepares the paramedic student to be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for patients with common complaints. Under the direction of a field preceptor, the student will learn to safely manage the scene of a prehospital emergency. The student will arrange EMS field time through the clinical coordinator.

EMS 2503 – Pediatric and Gynecology Theory 3

(Prerequisite: EMS 2303 + 2307 + 2313 + 2390 + 2393 + EMS 2490. Pre- or corequisite: EMS 2507 + 2513 + 2590 + 2593 + 2690 + 2999)

Provides the level of classroom instruction needed to provide advanced care for pediatric and obstetric patients. Meets or exceeds the cognitive objectives of the EMT-Paramedic National Standard Curriculum, Basic Life Support (BLS), Pediatric Advanced Life Support (PALS), Pediatric Emergencies for Prehospital Providers (PEPP) and incorporates the NM EMT-Paramedic Scope of Practice.

EMS 2507 – Environmental Theory 3

(Pre- or corequisite: EMS 2503 + 2513 + 2590 + 2593 + 2690 + 2999)

Provides the level of classroom instruction needed to provide advanced care for patients with experiencing environmental emergencies. Includes instruction on toxicology, hazardous materials and weapons of mass destruction. Meets or exceeds the cognitive objectives of the EMT-Paramedic National Standard Curriculum.

EMS 2513 – Behavioral Emergencies and Communication 1

Previously EMS 2005 (Prerequisite: PSY 1105 or PSY 2289. Pre- or corequisite: EMS 2503 + 2507 + 2590 + 2593 + 2690 + 2999)

Provides the level of classroom instruction needed to provide advanced care for patients experiencing behavioral emergencies. Includes instruction on effective communication with patients, coworkers and other healthcare professionals. Meets or exceeds the cognitive objectives of the EMT-Paramedic National Standard Curriculum and incorporates the NM EMT-Paramedic Scope of Practice.

EMS 2590 – Hospital Clinical II 1

(Pre- or corequisite: EMS 2503 + 2507 + 2513 + 2593 + 2690 + 2999)

This course provides students with clinical time in local hospitals to administer medications, perform airway skills, perform venous access, and assess patients of all age groups with various medical or traumatic conditions. This clinical will have a pediatric focus. (45 Clinical)

EMS 2593 – Paramedic Lab II 2

(Pre- or corequisite: EMS 2503 + 2507 + 2513 + 2590 + 2690 + 2999)

Students will practice simulated patient care related to second, third, and fourth term semester paramedic courses. Students will develop treatment strategies to manage various medical and trauma emergencies. Meets or exceeds the psychomotor objectives of the EMT-Paramedic National Standard Curriculum, and Pediatric Advanced Life Support (PALS) and Pediatric Emergencies for Prehospital Providers (PEPP). (90 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

EMS 2690 – Prehospital Field Clinical II 4

Previously EMS 2198 (Pre- or corequisite: EMS 2503 + 2507 + 2513 + 2590 + 2593 + 2999)

Prepares the paramedic student to be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for patients with common complaints. Under the direction of a field preceptor, the student will learn to safely manage the scene of a prehospital emergency. The student will arrange EMS field time through the clinical coordinator.

Course Subject Code/Course Number – Course Name Credit Hours

EMS 2999 – Paramedic Capstone 1

Previously EMS 2292 (Pre- or corequisite: EMS 2503 + 2507 + 2513 + 2590 + 2593 + 2690)

The final lab course is for the paramedic student to prepare for the State of New Mexico and National Registry paramedic exam. Successful completion of this course will allow the student to receive a paramedic completion certificate and take the paramedic exam. Knowledge and skills from the core curriculum courses will be incorporated into the review process to include skills testing, practice test review and scenario testing. (45 lab hours per term) Course fee: National Registry Paramedic Preparatory Exam with Remediation Manual. **$ Additional fees published in the *Schedule of Classes*.**

ENG – English Courses School of Adult & General Education

ENG 0196, 0296...0996 – Special Topics 1-3

(all courses ending in 96 are topics courses)

Presents various topics in developmental English. See *Schedule of Classes*.

ENG 0550 – Basic Writing and Reading Skills 3

Previously ENG 098 (Prerequisite: Accuplacer Reading score between 0-58 + Accuplacer Sentence Skills score between 0-52 or equivalent.)

Focuses on basic reading and writing for practical use in school and life. Provides students the opportunity to practice reading strategies, improve their sentence and paragraph skills in organized pieces of writing, use computers for word processing and research, practice oral language skills and improve English usage and punctuation. (45 theory hours + 15 lab hours per term)

ENG 0592 – Workshop for Non-Native English Speakers 1

Previously ENG 098W

Focuses on teaching ESL students concurrently enrolled in an English and/or reading course to recognize and correct grammatical errors commonly made in writing assignments by native speakers of a language other than English. Provides practice in speaking, listening and vocabulary development. (30 lab hours per term)

ENG 0750 – Practical Writing 3

Previously ENG 099 (Prerequisite: ENG 0550 or appropriate placement scores, see page 12)

Focuses on writing tasks related to daily life, school and the workplace to achieve a variety of practical and academic goals. Presents English grammar, usage and punctuation in the context of the students' own writing. (45 theory hours + 15 lab hours per term)

ENG 0792 – Workshop for Non-Native English Speakers 1

Previously ENG 099W

Focuses on teaching ESL students concurrently enrolled in an English and/or reading course to recognize and correct grammatical errors commonly made in writing assignments by native speakers of a language other than English. Provides practice in speaking, listening and vocabulary development. (30 lab hours per term)

ENG 0950 – Essay Writing 3

Previously ENG 100 (Prerequisite: ENG 0750 or appropriate placement scores, see page 12)

Prepares students for first-year college composition by providing practice of the rhetorical and grammatical skills necessary to write purposeful, reader-centered essays. Covers effective use of a writing process in out-of-class essays and in timed, in-class situations. Incorporates readings for discussion of ideas and for information to be used in students' writing. (45 theory hours + 15 lab hours per term)

ENG 0992 – Workshop for Non-Native English Speakers 1
Previously ENG 100W

Focuses on teaching ESL students concurrently enrolled in an English and/or reading course to recognize and correct grammatical errors commonly made in writing assignments by native speakers of a language other than English. Provides practice in speaking, listening and vocabulary development. (30 lab hours per term)

ENG – English Courses School of Communication, Humanities & Social Sciences

ENG 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ENG 1101 – College Writing 3
Previously ENG 101 (Prerequisite: ENG 0950 + RDG 0950; or appropriate placement scores, see page 12)

Emphasizes text-based essay composition, including critical reading, summary writing and synthesis.

ENG 1102 – Analytic and Argumentative Writing 3
Previously ENG 102 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12)

Emphasizes analytic and argumentative writing with readings and research in exposition and literature.

ENG 1119 – Technical Communications 3
Previously ENG 119 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12)

Introduces study of written and verbal communication in business and industry.

ENG 1150 – Study of Literature 3
Previously ENG 150 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Introduces the academic study of literature.

ENG 2096, 2196...2996 – Special Topics in Literature 1-6
(all courses ending in 96 are topics courses)

Previously ENG 211 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12 or department approval)

Presents various topics. See *Schedule of Classes*.

ENG 2206 – Popular Literature: Detective Novel 3
Previously ENG 206D (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Surveys detective fiction as a literary genre, examining its distinctive traits as they developed in Britain and America.

ENG 2207 – Popular Literature: Science Fiction 3
Previously ENG 206F (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Surveys the science fiction genre, examining its history, its dominant themes and ideas and its most important creators.

ENG 2208 – Popular Literature: Espionage Fiction 3
Previously ENG 206S (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Surveys the development in world literature of espionage fiction, a subgenre of the "thriller" whose popularity dates from the World War I era.

Course Subject Code/Course Number – Course Name Credit Hours

ENG 2209 – Popular Literature: Western 3
Previously ENG 206W (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Surveys the development of and conventions associated with western fiction, short stories and novels set in the American West and featuring themes common to the history, cultures and ethos of the West. The relationship between Western fiction and the Western film will be examined at length as well.

ENG 2210 – Film as Literature 3
Previously ENG 210 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Presents study of film as visual literature, surveying major trends in the history of film.

ENG 2213 – Film Genres: Comedy 3
Previously ENG 213D (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Surveys the history of film comedy, from early silent films to more recent developments. Examines the artistic, cultural and historical forces that created the genre.

ENG 2214 – Film Genres: Film Noir 3
Previously ENG 213F (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Surveys the film style/genre known as film noir. Investigates the cultural/stylistic origins of noir, its characteristic and conventional elements, its principal subject interests and narrative techniques and representative examples of noir's evolution in film history.

ENG 2215 – Film Genres: Hitchcock/Kubrick 3
Previously ENG 213H (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Surveys Hitchcock's and Stanley Kubrick's films, focusing on their development as directors, their ideas about filmmaking and their influence on world cinema.

ENG 2216 – Film Genres: World Cinema 3
(Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Surveys the films from Africa, Latin America, the Middle East and Southeast Asia. Addresses topics of post-colonialism and national identity as well as film history and aesthetics in emerging national cinemas.

ENG 2219 – Technical Writing 3
Previously ENG 219 (Prerequisite: ENG 1102)

Emphasizes writing in industry, research laboratories, business and other professional settings.

ENG 2220 – Expository Writing 3
Previously ENG 220 (Prerequisite: ENG 1102)

Focuses on advanced composition, concentrating on critical reading of prose and writing expository and argumentative essays.

ENG 2221 – Creative Writing: Fiction 3
Previously ENG 221 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Introduces fiction writing as a creative process.

ENG 2222 – Creative Writing: Poetry 3
Previously ENG 222 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Introduces poetry writing as a creative process.

ENG 2240 – Traditional Grammar 3
Previously ENG 240 (Recommended prerequisite: ENG 1101)

Surveys traditional grammar, introducing linguistic terminology and methods for identifying and understanding parts of speech, parts of sentences and basic sentence patterns.

ENG 2250 – Analysis of Literature 3
Previously ENG 250 (Prerequisite: ENG 1102)

Emphasizes methods of literary analysis and critical writing applied to literary techniques, conventions and themes.

ENG 2251 – Introduction to Dramatic Literature 3
Previously ENG 251 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Introduces structure and nature of drama as a literary form: Greek, Renaissance, Enlightenment and Modern eras.

ENG 2252 – Introduction to Shakespeare 3
Previously ENG 252 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Introduces study of Shakespeare's work: sonnets, tragedies, comedies and histories. Fall only.

ENG 2262 – Survey of Earlier World Literature 3
Previously ENG 262 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Surveys poetry, fiction and drama from primarily non-English cultures: ca. 1500 B.C. – A.D. 1650.

ENG 2263 – Survey of Later World Literature 3
Previously ENG 263

Surveys poetry, fiction and drama from primarily non-English cultures: ca. 1650 to present. Spring only

ENG 2270 – Modern Literature 3
Previously ENG 270 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Surveys American and European literature of the 20th century.

ENG 2282 – Modern Latin American Literature 3
Previously ENG 282 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Emphasizes chronicles, diaries, drama, poetry, essays and fiction of Latin America from late 19th century to the present.

ENG 2284 – Survey of Earlier English Literature 3
Previously ENG 294 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Surveys British literature from Old English to 1798. Fall only.

ENG 2285 – Survey of Later English Literature 3
Previously ENG 295 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Surveys English literature from the late 18th century to the present. Spring only.

ENG 2287 – Earlier American Literature 3
Previously ENG 297 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Introduces short stories, poetry, drama and nonfiction from colonial U.S. to 1865.

Course Subject Code/Course Number – Course Name Credit Hours

ENG 2288 – Later American Literature 3
Previously ENG 298 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Continues study of American literature begun in ENG 2287. Focuses on short stories, poetry, drama, the novel and nonfiction from 1865 to the present.

ENG 2596, 2696...2996 – Special Topics in Language and Writing 3
(all courses ending in 96 are topics courses)

Previously ENG 212 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Presents various topics. See *Schedule of Classes*.

ENGR – Engineering Courses School of Math, Science & Engineering

ENGR 1010 – Survey of Engineering Fields 1
Previously ENGR 101 (Prerequisite: RDG 0950 + MATH 1310; or appropriate placement scores, see page 12)

Introduces the engineering design process and exploration of careers in engineering.

ENGR 2088 – Engineering Specialty 1-16
This course is used to transfer approved courses from other colleges and universities to fulfill requirements for the AS Engineering degree. Please contact the School of Math, Science & Engineering for a list of approved courses.

ENGR 2096, 2196……2996 – Special Topics 1-3
(all courses ending in 96 are topics courses)

(Prerequisite: varies)

Presents various topics. See *Schedule of Classes*

ENGR 2710 – Thermodynamics 3
(Prerequisite: CHEM 1810/1892 + MATH 1715 + PHYS 1810)

First and second laws of thermodynamics and their applications to engineering systems. Thermodynamic equilibrium, thermodynamic properties, availability and irreversibility.

ENGR 2810 – Engineering Statics 3
Previously ENGR 202 (Prerequisite: PHYS 1710 + PHYS 1792 + MATH 1715)

Introduces the following concepts: statics of particles and rigid bodies in two and three dimensions using vector algebra as an analytical tool, centroids, distributed loads, trusses, frames and friction.

ENGR 2815 – Engineering Dynamics 3
(Prerequisite: ENGR 2810. Pre- or corequisite: MATH 2710)

Kinematics and kinetics of particles, systems of particles and solid bodies. Force/acceleration, work/energy and impulse/momentum principles. Graphical analysis, mechanisms and vibrations.

ENGR 2910 – Circuit Analysis I 4
Previously ENGR 203 (Prerequisite: CSCI 1151 or CSCI 1152 or CSCI 1153. Pre- or corequisite: PHYS 1810 + PHYS 1892 + MATH 2910)

Through lecture and laboratory experience, this course introduces the following concepts: basic elements and sources, energy and power, Ohm's law and Kirchhoff's law, resistive networks, node and loop analysis, sinusodial sources and complex representations and three phase circuits.

ENGR 2915 – Circuit Analysis II 3
(Prerequisite: ENGR 2910 + MATH 2910)

Continuation of ENGR 2910, Circuit Analysis I. Differential equation modeling and analysis of linear circuits with sinusoidal inputs (phasors, impedances, admittances, power). Comprehensive treatment of circuit analysis in the frequency domain (Laplace transforms, frequency response, Bode plots, Fourier analysis). Thevenin's and Norton's theorems.

ENTR – Entrepreneurship Courses School of Business & Information Technology

(For ENTR courses please see BA courses on page 211.)

ESH – Environmental Safety and Health Courses School of Math, Science & Engineering

ESH 1009 – Environmental Technology I **3**

Previously EPT 111L (Recommended prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Introduces environmental protection methods and their ecological basis. Covers all major areas of environmental concern including air, water, soils and food sanitation. (30 theory hours)

ESH 1010 Environmental Regulation and Compliance **3**

Previously EPT 211L (Recommended prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Introduces the major federal and state environmental laws and regulations concerning air, water, soil, hazardous chemical and nuclear waste, site cleanup standards, accepted environmental practice and environmental ethics.

ESH 1095 – Cooperative Education **3**

Previously EPT 299 (Prerequisite: department approval)

Employs the student at an approved program-related work site and applies learned theory based on goals and objectives.

ESH 1096, 1196...1996 – Special Topics **1-6**

(all courses ending in 96 are topics courses)

Previously EPT 296 (Prerequisite: department approval)

Covers an in-depth study of problems and advanced techniques.

ESH 1570 – Water Quality Protection **3**

Previously EPT 173 (Prerequisite: ESH 1009 + CHEM 1410/1492; or department approval)

Presents water supply system operations, distribution systems and basic hydraulics. Students will become familiar with water quality protection and treatment techniques including backflow prevention and cross connection control. (15 theory + 75 lab hours per term)

ESH 1571 – Environmental Instrumentation and Analysis **3**

Previously EPT 215 (Prerequisite: EPT 1009 or department approval)

Explores contemporary instrumentation and techniques in this hands-on introduction to the care and use of laboratory and field-portable instruments. Covers maintenance, calibration and operation of instruments and meters, along with EPA protocols. (15 theory + 75 lab hours per term)

ESH 1809 – Workplace Adult First Aid and CPR **1**

Offers American Red Cross Workplace Training standard first aid and cardiopulmonary resuscitation certification. Also includes material sufficient to satisfy Red Cross contact hour training.

ESH 1811 – Waste Site Refresher/DOT Chemical Release **1**

(Prerequisite: department approval)

The course provides annual OSHA refresher training to hazardous waste workers and supervisors covered under 29 CFR 1910.120 (HAZWOPER) Recognition and control of hazards at a site are reviewed and competencies demonstrated with all personal protective equipment.

ESH 2002 – Food Resources and the Environment **3**

Previously EPT 176

Presents the impact of food resource choices on the quality of the environment and human health. Explores economic, ecological and social aspects of food resource production and consumption.

Course Subject Code/Course Number – Course Name Credit Hours

ESH 2006 – Occupational Safety for Construction I **1**

Previously EPT 120A

Introduces students to OSHA policies, procedures and standards, construction safety and health principles. The scope and application of the OSHA Construction Safety Standard will be addressed with emphasis on high hazard areas. Students successfully completing the course will receive a Division of Labor card acknowledging completion of the 10-hour awareness course for 29 CFR 1926.

ESH 2008 – Basic Site Remediation Technology **3**

Previously EPT 174

Emphasizes major remedial technologies for site cleanup under federal, state and local regulations. Presents physical, biological, chemical and thermal treatments in common use.

ESH 2009 – Occupational Safety for Construction II **2**

Previously EPT 120B

Introduces students to OSHA policies, procedures and standards, construction safety and health principles. The scope and application of the OSHA Construction Safety Standard will be addressed with emphasis on high hazard areas. Students successfully completing the course will receive a Division of Labor card acknowledging completion of the 30-hour awareness course for 29 CFR 1926.

ESH 2011 – Watershed Protection **3**

Previously EPT 123 (Prerequisite: EPT 1009 + EPT 2410; or department approval)

Introduces the management and protection of surface water resources with emphasis on the American Southwest. Topics include lake, riparian and wetland systems, monitoring water quality conditions, pollution sources, regulations and requirements, risk assessment in water quality standards, discharge types, stormwater control, balancing water quantity and beneficial uses.

ESH 2016 – Occupational Safety I **1**

Previously EPT 214A

Introduces inspections, personal protective equipment, fire protection, hazardous materials, walking/ working surfaces, electrical standards and bloodborne pathogens. An OSHA General Industry Outreach Program 10-hour certificate is awarded on successful completion.

ESH 2017 – Occupational Safety II **1**

Previously EPT 214B

Covers lock-out/tag-out, material handling, hazardous communication (MSDS and labeling), machine guarding, welding/cutting/brazing, confined spaces, hearing conservation and general environmental controls.

ESH 2018 – Occupational Safety III **1**

Previously EPT 214C

Introduces hazardous substances, respiratory standards, hazard analysis, record keeping and workers\ compensation. An OSHA General Industry Safety and Health Outreach Program 30-hour certificate will be awarded on successful completion of EPT 2016, 2017 and 2018.

ESH 2096, 2196…2996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

ESH 2097 – Independent Study **Variable**

Previously EPT 297 (Prerequisite: department approval)

Focuses on a specific problem and studied while working with an instructor.

ESH 2098—Internship **3**

(Prerequisite: department approval)

Provide an opportunity for the students to work for one term in an appropriate environmental safety and health field. Position is not paid.

ESH 2407 – Air Quality Protection **3**

Previously EPT 124 (Prerequisite: EPT 1009 + EPT 2410 + MATH 1210; or department approval)

Introduces students to the management and protection of the air quality. Topics include basic meteorology, pollution sources and human health impacts, regulations, permitting, air quality standards, ambient and emission monitoring techniques, pollution control methods, air dispersion models, calculation methods for estimating stack emissions, criteria and hazardous pollutants.

ESH 2408 – Introduction to Safety Management **3**

Previously EPT 171

Presents behavioral and management techniques for safety in today's demanding workplace. Topics include planning, budgeting, communications, motivation and people skills.

ESH 2409 – Water/Wastewater Math **3**

Previously EPT 125

Presents methods to analyze and solve mathematical problems associated with water and waste water system operations, focusing on certification exam requirements.

ESH 2410 – Environmental Sampling and Analysis **3**

Previously EPT 132

Introduces students to the fundamentals of environmental chemistry, this course focuses on chemical and instrumental analysis, sampling and preservation techniques in water, wastewater, soil, air and food testing. (15 theory + 75 lab hours per term)

ESH 2414 – Radiation Protection I **4**

Previously EPT 121 (Prerequisite: MATH 0930 or appropriate placement scores, see page 12; or department approval)

Presents foundation topics including basic engineering calculations, nuclear terminology, basic nuclear physical properties and processes, mass-energy conversions, sources of ionizing radiation and radioactive decay and radioactivity calculations. Lecture is supplemented with demonstration and hands-on activities.

ESH 2415 – Radiation Protection II **4**

Previously EPT 122 (Prerequisite: ESH 2414 or department approval)

Develops concepts introduced in ESH 2414 and presents topics in interactions of radiation with matter, biological effects of ionizing radiation, radiation protection standards, the ALARA philosophy, implementation of exposure controls and radiation detector theory. Lecture is supplemented with demonstration and hands-on activities.

ESH 2899 – Environmental Safety and Health Capstone Course **2**

(Recommended prerequisite: ESH 1809. Prerequisite: department approval)

Covers safe work practices at hazardous waste sites. Procedures specified by OSHA in the 29CFR 1910.120 regulation concerning safety and health plans, site characterization and analysis, waste removal and remedial operations. Students must complete 40 contact hours of instruction to meet OSHA's certification requirements in the training portion of 29 CFR 1910.120. Students will also learn how to prepare a professional portfolio that demonstrates the core and technical competencies. (Taken during student's last term) (15 theory + 37.5 lab hours per term)

ESL – English as a Second Language Courses (non-credit) School of Adult & General Education

For ESL credit courses, see ESOL on this page.

ESL 0196, 0296...0996 –Special Topics* **1-6**

(all courses ending in 96 are topics courses)

Previously ESL 082

Presents various topics. See *Schedule of Classes*.

Course Subject Code/Course Number – Course Name Credit Hours

ESL 0250 – ESL Literacy

Previously ESL 040

Introduces alphabet, phonemic system, basic vocabulary and simple sentences in meaningful, communicative contexts. For students who have had no previous exposure to written or spoken English.

ESL 0350 – Beginning ESL

Previously ESL 050

Develops English language skills with an emphasis on pronunciation practice, listening comprehension, conversation and basic grammar.

ESL 0450 – Low Intermediate ESL

Previously ESL 060

Focuses on practice in communication skills for everyday life, which may include voicing opinions and responding appropriately in conversations on familiar topics, discussing short reading selections, learning and reviewing grammatical skills and conventions of oral and written English.

ESL 0550 – High Intermediate ESL

Previously ESL 061

Expands focus on practice in communication skills for everyday life, which may include voicing opinions and responding appropriately in conversations on familiar topics, discussing short reading selections, learning and reviewing grammatical skills and conventions of oral and written English.

ESL 0650 – Low Advanced ESL

Previously ESL 070

Covers English conversation, writing, reading and evaluation of materials and study of advanced grammar in meaningful, communicative contexts.

ESL 0500 – Integrated ESL

Previously ESL 081

Presents reading, writing, listening, speaking and grammatical skills through group work, paired practice and self-paced instruction. Comprehensive, community-based classes for students at all levels of English proficiency.

ESL 0505 – ESL Learning Center

Previously ESL 080

Includes individualized study and tutoring in English language skills with access to computer, video and audio programs as well as other instructional materials in the Adult Education Learning Center at Main Campus or Montoya Campus.

ESL 0600 – Citizenship

Previously ESL 085

Covers English language skills, American history and government. For students who have a high intermediate to advanced level of English and are preparing to become American citizens.

** Note: Students may also study on an individual basis at Main Campus or Montoya Campus Adult Education Learning Centers.*

ESOL – English for Speakers of Other Languages Courses School of Adult & General Education

Note: Adult education classes are available for lower-level learners of English as a Second Language (ESL) on this page.

ESOL 0196, 0196…0996 – Special Topics **1-6**

(all courses ending in 96 are topics courses)

Presents various topics. See *Schedule of Classes*.

ESOL 0550 – ESOL for College Success **3**

An English course for speakers of other languages. Designed for students who are planning to work toward a degree or certificate. Focuses on helping students improve reading, writing, listening and speaking skills. Emphasis is on English used in college. (45 hours theory + 15 hours lab)

ESOL 1096, 1196…1996 – ESOL Special Topics **1-6**
(all courses ending in 96 are topics courses)

Presents various topics. See *Schedule of Classes*.

ESOL 2096, 2196…2996 –Special Topics **1-6**
(all courses ending in 96 are topics courses)

Previously ESL 296

Presents various topics. See *Schedule of Classes*.

ETAP – Electrical Trades Apprenticeship School of Applied Technologies

ETAP 1115 – Electrical Trades Apprenticeship **5-7**
Previously ETAP 198A (Prerequisite: current full-time employment in the electrical trades industry or department approval)

Provides 75–105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor controls.

ETAP 1125 – Electrical Trades Apprenticeship **5-7**
Previously ETAP 198B (Prerequisite: current full-time employment in the electrical trades industry or department approval)

Provides 75–105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor controls.

ETAP 1215 – Electrical Trades Apprenticeship **5-7**
Previously ETAP 198C (Prerequisite: current full-time employment in the electrical trades industry or department approval)

Provides 75–105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor controls.

ETAP 1225 – Electrical Trades Apprenticeship **5-7**
Previously ETAP 198D (Prerequisite: current full-time employment in the electrical trades industry or department approval)

Provides 75–105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor controls.

ETAP 1315 – Electrical Trades Apprenticeship **5-7**
Previously ETAP 198E (Prerequisite: current full-time employment in the electrical trades industry or department approval)

Provides 75–105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor controls.

ETAP 1325 – Electrical Trades Apprenticeship **5-7**
Previously ETAP 198F (Prerequisite: current full-time employment in the electrical trades industry or department approval)

Provides 75–105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor controls.

ETAP 1415 – Electrical Trades Apprenticeship **5-7**
Previously ETAP 198G (Prerequisite: current full-time employment in the electrical trades industry or department approval)

Provides 75–105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor controls.

Course Subject Code/Course Number – Course Name Credit Hours

ETAP 1425 – Electrical Trades Apprenticeship **5-7**
Previously ETAP 1987H (Prerequisite: current full-time employment in the electrical trades industry or department approval)

Provides 75–105 hours of related classroom instruction covering safety, electrical theory, blueprint reading and layout, National Electrical Code interpretation, tool usage and motor controls.

FILM – Film Technician Training Courses School of Applied Technologies

FILM 1001 – Intro to Film and Media Workflow **3**
(Prerequisite: ENG 0950 + MATH 0940 + RDG 0950; or appropriate placement scores)

Introduces students to the terminology, job categories and descriptions as well as the necessary protocols/set etiquette required to work in the film industry.

FILM 1003 – Basics of Film and Media Production **3**
(Pre- or corequisite: FILM 1001 + department approval)

Exploration the various crafts and skills of the "below the line" component of the film industry. (30 theory + 45lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

FILM 1007 – Pre-visualization and Storyboarding **3**
(Prerequisite: FILM 1020 + IT 1010)

Students will create rough images of shots for movie sequences using standard storyboarding techniques and "pre-Viz" software. (30 theory + 45 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

FILM 1009 – Post-production and Editing **4**
(Prerequisite: FILM 1292 + IT 1010)

Students will be introduced to industry-standard post-production techniques and editing techniques and software. (45 theory + 45 lab hours) **$ Additional fees published in the *Schedule of Classes*.**

FILM 1020 – Film Technician Training II **12**
(Prerequisite: FILM 1192 + department approval)

Students will begin to specialize in the film/studio crafts based on their demonstrated skills and interest. A significant time investment of approximately 100 hours outside of class will be required to participate in this course. (45 theory + 255 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

FILM 1092 – On-Set Production Techniques **3**
(Pre- or corequisite: FILM 1003 + department approval)

Students will apply the skills and techniques in the "below the line" areas covered in FILM 1003 to studio/soundstage productions. (90 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

FILM 1192 – Location Production Techniques **3**
(Pre- or corequisite: FILM 1092 + department approval)

Students will apply the skills and techniques in the "below the line" areas covered in FILM 1003 to the unique challenges of producing content outside of a soundstage. (90 theory hours per term) **$ Additional fees published in the *Schedule of Classes*.**

FILM 1292 – Camera work for Editors **3**
(Prerequisite: FILM 1192)

Students will perform as camera operators in order to understand the "vision" that the project's creator had in mind. This experience enhances the Editor's decision making during post-production. (90 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

FILM 1392 – Editing Project **3**
(Pre- or corequisite: FILM 1292)

Students will gain practical experience by editing and re-editing various projects to accomplish the Director's vision. (90 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

FILM 2095 – Cooperative Education **1-12**
Previously FILM 299 (Prerequisite: department approval)

Provides an opportunity for the student to work for one term on a cooperative basis in an appropriate training program. The position is paid.

FILM 2096, 2196...2996 – Special Topics **1-12**
(all courses ending in 96 are topics courses)
Previously FILM 296 (Prerequisite: department approval)

Explores specialized areas of the movie industry. **$ Additional fees published in the *Schedule of Classes*.**

FILM 2097 – Independent Study **1-12**
Previously FILM 297 (Prerequisite: department approval)

Allows the student and instructor to define a specific problem in the area of the student's interest and directly related to the program. The student develops and executes a solution using analytical techniques appropriate to the problem. An oral presentation may be required.

FILM 2098 – Internship **1-12**
Previously FILM 298 (Prerequisite: department approval)

Provides an opportunity for the student to work for one term on a cooperative basis in an appropriate training program. The position is not paid.

FIN – Financial Services Courses School of Business & Information Technology

FIN 1010 – Financial Literacy Complete **3**
Previously FIN 102

Introduces students to the basics of money management and financial skills necessary to meet real-world challenges. The course is interactive and will cover concepts and decision making through illustrations and real-life problems. Topics covered include budgeting, managing money, borrowing money and planning for the future. FIN 1011 plus FIN 1012 plus FIN 1013 are equivalent to this course.

FIN 1011 – Financial Literacy I **1**
Previously FIN 102A

Managing money is the main topic. This course is interactive and will cover concepts and decision making about banks, checking accounts, creating personal budgets, savings accounts and record keeping.

FIN 1012 – Financial Literacy II **1**
Previously FIN 102B

Borrowing money and establishing credit are topics of this course. Students will be introduced to credit reports, employment issues, taxes and deductions. The course is interactive and will cover concepts and decision making through illustrations and real-life problems.

FIN 1013 – Financial Literacy III **1**
Previously FIN 102C

Planning for the future, home buying, financial planning, saving and investing are the main topics of this course. The course is interactive and will cover concepts and decision making through illustrations and real-life financial issues.

FIN 1096, 1196...1996 – Special Topics **1–3**
(all courses ending in 96 are topics courses)
Previously FIN 296

Explores current topics in financial services.

FIN 1100 – Principles of Banking **3**
Previously FIN 101

Surveys major aspects of banking from the fundamentals of negotiable instruments to contemporary issues.

FIN 1310 – Fundamentals of Risk Management and Insurance **3**
Previously FIN 249

Explores the business and personal exposures to risk and the concepts and methods of minimizing and insuring against those risks.

FIN 2095 – Cooperative Education **4**
Previously FIN 299 (Prerequisite: ACCT 1112 + FIN 1100 + department approval)

Provides students the opportunity to work a minimum of 150 hours in a new job experience in banking or training-related supervised workstations. Student trainees are paid by the cooperating firm and supervised jointly by CNM and the employer. The student and employer determine the weekly contact hours.

FIN 2096, 2196...2996 – Special Topics **1-3**
(all courses ending in 96 are topics courses)
Previously FIN 296

Explores current topics in financial services.

FIN 2097 – Independent Study **Variable**
Previously FIN 297 (Prerequisite: department approval)

Allows student and instructor to define a specific problem in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to the problem. An oral presentation may be required.

FIN 2098 – Internship **4**
Previously FIN 298 (Prerequisite: ACCT 1112 + FIN 1100 + department approval)

Provides students the opportunity to work a minimum of 150 hours in a new job experience in banking or training-related supervised workstations. Students are not paid for their work but are supervised jointly by CNM and the employer. The student and employer determine the weekly contact hours.

FIN 2210 – Finance **3**
Previously FIN 248 (Prerequisite: ACCT 1111 + ACCT 1112 + ACCT 1109; or ACCT 1110 + ACCT 1109. Recommended prerequisite: ACCT 1210)

Presents an overview of the major concepts of finance focusing on the financial system and investments.

FITT – Fitness Courses School of Health, Wellness & Public Safety

FITT 1010 – Foundations of Exercise Science **3**
Previously FITT 209 (Prerequisite: BIO 1310 + BIO 1392; or department approval)

Covers how the human body responds and adapts to exercise and physical training. Students will learn how to apply this information to design exercise programs. (30 theory + 37.5 lab hours per term)

Fall only.

FITT 1071 – The Business of Personal Fitness Training **3**
Previously FITT 211

Focuses on the business of personal training, including marketing services and programs, day-to-day operations, documentation, financial considerations, liability concerns and trends and issues in the health/ fitness industry. (30 theory + 37.5 lab hours per term) Fall only.

FITT 1072 – Kinesiology 3
Previously FITT 277 (Pre- or corequisite: FITT 1010)

Covers the physiological and kinesiological aspects of muscular fitness training. Special emphasis is placed on designing strength, endurance, hypertrophy and power resistance/weight training programs. (30 theory + 37.5 lab hours per term) Fall only.

FITT 1092 – Cardio Kick Boxing 1
Provides basic instruction in cardiovascular exercise utilizing non-contact kick boxing movements (punches, kicks, footwork, combinations, etc.). Taught at a beginning level for individuals who have never participated in a cardio kickboxing program.

FITT 1093 – Weight Training for Women 1
Previously FITT 174
Introduces weight training designed for women and focuses on the use of free weights and machine exercises to develop muscle endurance, hypertrophy and muscular strength. (45 lab hours per term)

FITT 1095 – Cooperative Education 3
Previously FITT 299
Employs the student at an approved program-related work site and applies learned theory based on goals and objectives. (112.5 hours per term)

FITT 1097 – Independent Study 1-6
Previously FITT 297
Focuses on a specific problem while working with an instructor.

FITT 1098 – Fitness Technician Field Experience 3
Previously FITT 298 (Prerequisite: department approval)
Provides students with a supervised field experience in a fitness setting. (112.5 hours per term)

FITT 1192 – Body Sculpting 1
Previously FITT 151
Utilizes hand-held weights and exercise bands to tone, define, sculpt and strengthen major muscle groups in an aerobic setting.

FITT 1193 – Beginning Step Aerobics 1
Previously FITT 175
Introduces cardiorespiratory fitness, flexibility and body composition for individuals who have never participated in a step aerobics program. (45 lab hours per term)

FITT 1292 – Boxing Conditioning 1
Previously FITT 152
Presents highly intense, non-contact boxing activities covering basic boxing skills (stance and footwork, punches, combinations, etc.) as well as participation in general conditioning activities commonly performed by boxers.

FITT 1293 – Fall Prevention Training for Older Adults 1
Previously FITT 177

Presents a highly structured activity based course to directly address the three sensory systems used for balance through a progressive, multi-faceted approach. In addition to individual assessments, students will develop strength, improve balance and learn strategies to help maintain independence with a renewed confidence for successful aging. Physician release indicating student's ability to safely participate in moderate intensity physical activity is required.

FITT 1393 – Flexibility Training 1
Previously FITT 180
Increases and maintains joint range of motion as well as facilitates relaxation; includes abdominal training.

Course Subject Code/Course Number – Course Name Credit Hours

FITT 1492 – Step/Circuit Combo 1
Previously FITT 154
Uses a combination of step-aerobics and circuit resistance training with hand weights, resistance tubes and fit balls for individuals looking for a cross-training effect. No previous step experience is required. (45 lab hours per term)

FITT 1493 – Fit Ball Training 1
Previously FITT 181
Uses fit balls, exercise bands, medicine balls and hand weights to improve flexibility, coordination and extremity and core strength.

FITT 1503 – Sport Safety Training 1
Previously FITT 199
Covers the requirements for the sport safety training certification developed by the United States Olympic Committee and the American Red Cross (ARC). Upon successful completion of this course, the student will receive the Sport Safety certification.

FITT 1570 – Applied Nutrition for Sport and Exercise 3
Previously FITT 225 (Prerequisite: FITT 1010; ENG 0950 or appropriate placement scores, see page 12)

Provides basic understanding of the interrelationship among exercise, weight control and nutrition. Applications are made to dietary analysis, energy balance, fat loss and weight gain programs. (30 theory + 37.5 lab hours per term) Spring only.

FITT 1572 – Fitness Assessment and Exercise Prescription 3
Previously FITT 289 (Prerequisite: FITT 1010 + FITT 1072; MATH 0930 or appropriate placement scores, see page 12)

Covers methods of assessing health status, cardiorespiratory and muscular fitness, flexibility and body composition in apparently healthy individuals and prescribing appropriate exercise programs. This is a capstone course for the certificate program. (30 theory + 37.5 lab hours per term) Spring only.

FITT 1575 – Exercise Prescription for Special Populations 3
Previously FITT 290 (Pre- or corequisite: FITT 1572)

Reviews the indications and contraindications for assessing and prescribing exercise programs for special populations (elderly, prepubescent children, pregnancy, low back pain, diabetes, spinal cord injury, etc.) (30 theory + 37.5 lab hours per term) Spring only.

FITT 1592 – Step/Kick Combo 1
Previously FITT 155
Uses a combination of step-aerobics and cardio kickbox training for individuals looking for a crosstraining effect. No previous step experience is required.

FITT 1593 – Fundamentals of Fitness Yoga 1
Previously FITT 182
Introduces various techniques of fitness Yoga. Students are responsible for purchasing their own mats.

FITT 1692 – Beginning Country Western Dance 1
Previously FITT 160
Introduces dance basics including the Two-Step, Four-Count Swing, Waltz, Cotton-Eyed Joe, Line-Dance and Polka while learning how to lead and follow and dance with different partners.

FITT 1693 – Fundamentals of Pilates-Style Mat Training 1
Previously FITT 183
Teaches core strength and stabilization as well as improves joint range of motion and facilitate relaxation. Students are responsible for purchasing their own mats.

FITT 1792 – Physical Fitness I **1**
Previously FITT 170
Introduces assessment of muscular strength, muscular endurance, cardiorespiratory fitness, flexibility and body composition. Based on the assessments, the student designs and participates in a self-paced exercise program.

FITT 1793 – Pilates-Style Mat Training and Fitness Yoga Combo **1**
Previously FITT 186
Introduction to the various techniques of Pilates-style mat training and fitness Yoga. Students are responsible for purchasing their own mat.

FITT 1892 – Fitness for Older Adults **1**
Previously FITT 172

Focuses on individualized, goal-oriented exercise programs for individuals 50 years of age and older based on assessment of muscular and cardiovascular fitness. Use machines, free weights and stretching activities to improve strength, endurance, range of motion, bone mass, balance and overall well-being. Physician release indicating student's ability to safely participate in moderate intensity physical activity is required.

FITT 1893 – Gentle Fitness Yoga **1**
Previously FITT 187
Applying breathing and concentration, students will work on restoring/maintaining flexibility and strength. This class is ideal for those recovering from injury/illness, people with weight issues and mature people. Students are responsible for purchasing their own mat.

FITT 1992 – Circuit Training **1**
Previously FITT 173
Covers structured strength training and aerobics to provide a total body workout within a single format.

FITT 1993 – Ultimate Frisbee **1**
Previously FITT 190
Covers rules, techniques and tactics involved in playing Ultimate Frisbee while participating in various conditioning and skill-related drills and semi-competitive games.

FITT 2092 – Physical Fitness II **1**
Previously FITT 171 (Prerequisite: FITT 1792)

Continuation of FITT 1792. (45 lab hours per term)

FITT 2093 – Extreme Conditioning **1**
Covers highly intense activities that prepare individuals for the CPAT entrance test and the physical training portion of the firefighter academy. (45 lab hours per term)

FITT 2096, 2196...2996 – Special Topics **1-6**
(all courses ending in 96 are topics courses)
Previously FITT 296 (Prerequisite: department approval)

Covers fitness problems and the advanced techniques that fitness professional's use in responding to them.

FITT 2192 – Fitness for Older Adults II **1**
Previously FITT 178 (Prerequisite: FITT 1892)

Continuation of FITT 1892 and is designed specifically for individuals 50 years of age and older. Physician release indicating student's ability to safely participate in moderate intensity physical activity is required.

FITT 2292 – Fitness Yoga **1**
Previously FITT 184 (Prerequisite: FITT 1593)

Continuation of FITT 1593: Fundamentals of Fitness Yoga. Students are responsible for purchasing their own mat.

Course Subject Code/Course Number – Course Name Credit Hours

FITT 2392 – Pilates-Style Mat Training **1**
Previously FITT 185 (Prerequisite: FITT 1693)

Continuation of FITT 1693: Fundamentals of Pilates-Style Mat Training. Students are responsible for purchasing their own mat.

FITT 2492 – Group Exercise Leadership Preparation **1**
Previously FITT 201 (Prerequisite: department approval)

Offers theoretical and practical skills and experience in guiding groups to safely participate in exercise classes. Prepare students for national certification exams in various fields of group exercise. Spring only.

FREN – French Courses School of Communication, Humanities & Social Sciences

FREN 1101 – Beginning French I **4**
Previously FREN 101 (Recommended prerequisite: RDNG 0950 or appropriate placement scores, see page 12)

Introduces development of French language skills emphasizing listening, comprehension and speaking.

FREN 1102 – Beginning French II **4**
Previously FREN 102 (Prerequisite: FREN 1101 or department approval)

Continues course of study begun in FREN 1101.

FREN 2096, 2196...2996 – Special Topics **1-6**
(all courses ending in 96 are topics courses)
Previously FREN 296

Presents various topics. See *Schedule of Classes*.

FREN 2201 – Intermediate French **4**
Previously FREN 201 (Prerequisite: FREN 1102 or department approval)

Emphasizes enhancement of skills from FREN 1102 and further knowledge of the language and culture of France.

FREN 2202 – Intermediate French II **4**
Previously FREN 202 (Prerequisite: FREN 2201 or department approval)

Continues course of study begun in FREN 2201.

FS – Fire Science Courses School of Health, Wellness & Public Safety

FS 1010 – Introduction to Fire Science **3**
Previously FS 103 (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Presents an overview of the fire service to include protection system, history of the fire service, fire protection careers, employment requirements, fire service organizations, firefighting equipment and facilities and chemistry and behavior of fire.

FS 1096, 1196...1996 – Special Topics **1-6**
(all courses ending in 96 are topics courses)
Previously FS 296(Prerequisite: department approval)

Presents current topics in fire protection and emergency services.

FS 1504 – Wild Land Firefighting **3**
Previously FS 104 (Prerequisite: department approval)

Introduces wild land fire control practices and techniques, including suppression and prescribed burns based on fuels, terrain, weather and urban-wild land interface, as well as the use of hand and power tools. Successful completion confers S-130 and S-190, I-100, S-132 and Wild Land Structure Defense certifications.

FS 1512 – Building Construction 3

Previously FS 112 (Prerequisite: department approval)

Introduces building construction with emphasis on structural elements, construction materials, construction techniques, fire loading, fire resistance, fire spread and growth in buildings and fire division operations in various building types. Emphasizes fire effects on building structural components.

FS 2001 – Fire Protection Systems 3

Previously FS 201 (Prerequisite: department approval)

Presents an in-depth study of fire protection system design and operation. Discusses a variety of fire suppression and detection systems.

FS 2003 Hazardous Materials I 1

Previously FS 203A (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Covers recognition and identification of hazardous materials and defensive actions to prevent additional injuries and property and/or environmental damage. This course meets selected NFPA and OSHA requirements at the Hazardous Materials Awareness level. Students will receive a national IFSAC Certificate.

FS 2008 – Fire Protection Hydraulics and Water Supply 3

Previously FS 220 (Prerequisite: department approval)

Provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and solve water supply problems.

FS 2015 – Firefighter I 5

(Prerequisite: FS 1504 + 2003 + 2103 + EMS 1003 + department approval)

This course meets the requirements of the National Fire Protection Association (NFPA) 1001 Standard for Firefighter Professional Qualifications. Students must pass both a written and practical state-mandated exam. Upon successful completion of both exams students will be awarded an IFSAC certificate that indicates he/she is a nationally certified Firefighter I. (45 theory + 90 lab hours per term)

FS 2095 – Cooperative Education 3

Previously FS 299

Employs students at an approved program-related worksite and applies learned theory based upon goals/objectives of the Fire Science program.

FS 2096, 2196...2996 – Special Topics 1-6

(all courses ending in 96 are topics courses)

Previously FS 296 (Prerequisite: department approval)

Presents current topics in fire protection and emergency services

FS 2098 – Fire Service Internship 3

Previously FS 298 (Prerequisite: department approval)

Provides opportunity for the student to work as a volunteer in an appropriate fire division. Position is not paid.

FS 2103 – Hazardous Materials II 2

Previously FS 203B (Prerequisite: FS 2003 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

(Note: Students are required to wear respiratory protection equipment and participate in simulated hazardous materials incidents. Students must complete a pulmonary function test and medical review at the student's expense. Documentation of the medical evaluation must be submitted prior to simulations.) Covers recognition and identification of hazardous materials and defensive actions to prevent additional injuries and property and/or environmental damage. This course meets selected NFPA and OSHA requirements at the Hazardous Materials Operations level. Students will receive a national IFSAC certification.

Course Subject Code/Course Number – Course Name Credit Hours

FS 2402 – Managing Community Fire Protection 3

Previously FS 202(Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Covers legal aspects, program and personnel management, emergency management, EMS and rescue services, code administration, alternative delivery systems, training and trends in fire service.

FS 2416 – Command Strategy and Tactics I 1

Previously FS 224A (Prerequisite: department approval)

Provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment and extinguishing agents on the fire ground.

FS 2417 – Command Strategy and Tactics II 1

Previously FS 224B (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Includes structural fire fighting operations, urban search and rescue, aircraft emergencies and firefighter safety.

FS 2418 – Command Strategy and Tactics III 1

Previously FS 224C (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Covers specific incident management techniques including basic fireground operations involving high occupancy use and mass casualty incidents.

FS 2422 – Fire Behavior and Combustion 3

Previously FS 222 (Prerequisite: department approval)

Explores the theories and fundamentals of how and why fires start, spread and how they are controlled.

FS 2805 Public Safety Response to Terrorism 3

Previously FS 205 (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Provides instruction for first responders in fire service, emergency medicine, law enforcement and security and related fields who investigate, respond to and mitigate the effects of terrorist incidents to protect the public. Topics include terrorism concepts, weapons of mass destruction scenarios, emergency care, incident command and crime scene management and processing.

FS 2812 – Fire Investigation 3

Previously FS 212 (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Focuses on investigative techniques to determine fire cause and origin for structural, vehicle, wildland and hazardous materials fires as well as explosions.

FS 2813 – Industrial Fire Protection 3

Previously FS 213 (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Presents in-depth information regarding industrial loss control concepts focusing on industrial fire and safety hazards, hazardous materials, industrial fire brigades, fire division operations at industrial facilities and NFPP, ISFSI and OSHA fire brigade standards.

FS 2814 – Facilities Inspection 3

Previously FS 214 (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; or department approval)

Emphasizes inspections conforming to NFPA 101: Life Safety Code and applicable NFPA fire codes. Covers general and occupancy-specific requirements.

FS 2997 – Independent Study 1-6

Previously FS 297 (Prerequisite: department approval)

Focuses on a specific problem working with an instructor.

FS 2999 – Fire Science Capstone Course **1**

Previously FS 295(Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. (Taken during student's last term)

GED – GED Preparation (non-credit) School of Adult & General Education

GEDI 0196, 0296...0996 – Basic Skills Special Topics
(all courses ending in 96 are topics courses)

Previously BSK 082

Presents various topics. See *Schedule of Classes*.

GEDI 0500 – Basic Skills Integrated

Previously BSK 081

Provides comprehensive practice on basic reading, writing and math skills to help students prepare for the GED examination or improve competencies.

GEDI 0505 – Basic Skills Learning Center

Previously BSK 080

Includes individualized study and tutoring in basic skills math, reading and/or writing with access to computer, video and audio programs as well as other instructional materials in the Adult Education Learning Center at Main Campus or Montoya Campus.

GEDI 0520 – Spanish GED

Previously BSK 079

Prepares students for the GED exam conducted in Spanish, including instruction in math, writing, grammar and reading. Includes some instruction in English mechanics and usage to prepare for the English competency portion of the Spanish GED exam.

GEDI 0520 – GED en Español

Previously BSK 079

Instrucción en español para el examen GED. Esto incluye instrucción en matemáticas, escritura, gramática, y lectura. Tambien incluye instrucción en inglés en preparación para la porción inglés del examen Spanish GED.

GEDI 0650 – Computer Literacy

Introduces computer hardware and terminology, basics of the computer operating system, word processing and keyboarding skills, as well as the use of the Internet, email and other software applications.

GEDI 0900 – GED Refresher

Previously BSK 085

Covers the five GED subject areas, with a focus on GED math and essay writing skills needed to pass the GED exam.

GEDM 0450 – Math Fundamentals

Previously BSK 060

Reviews the language and basic concepts of math as they relate to addition, subtraction, multiplication and division using whole numbers and decimals.

GEDM 0550 – Decimals, Fractions and Measurements

Previously BSK 061

Covers low intermediate math concepts focusing on decimals, fractions, measurement applications, data analysis, basic geometry and some pre-algebra.

GEDM 0650 – Proportions, Percentages and Data Analysis

Previously BSK 062

Presents high intermediate math concepts focusing on proportions, percentages, data analysis, basic geometry and algebra. Includes a thorough review of fractions and decimals.

Course Subject Code/Course Number – Course Name Credit Hours

GEDM 0850 – GED Math

Previously BSK 063

Focuses on understanding the concepts and types of applied problems found on the GED Math exam.

GEDR 0250 – Basic Language Skills

Previously BSK 040

Explores basic reading/writing strategies using phonics, development of sight vocabulary and collaborative use of materials in themes relevant to students' lives.

GEDR 0450 – Basic Language Skills II

Previously BSK 041

Improves developmental phonics, dictionary skills, grammar, response to reading and self-expression.

GEDR 0650 – Basic Skills Reading

Previously BSK 050

Analyzes nonfiction and fiction to identify main idea, point of view and organizational patterns. Includes summarizing, drawing conclusions and responding to readings.

GEDR 0820 – Reading in Language Arts

Previously BSK 051

Focuses on reading and analysis of literature (short stories, poetry, drama and commentary) with multicultural themes to improve comprehension and to prepare for the Language Arts (Reading) test of the GED.

GEDR 0830 – Science

Previously BSK 052

Presents physical, life and earth sciences; students learn and use critical thinking skills necessary for success in practical problem solving and on the GED exam.

GEDR 0840 – Social Studies

Previously BSK 053

Presents history, political science, geography and economics using critical thinking skills necessary for success in practical problem solving and on the GED exam.

GEDW 0550 – Beginning Writing

Previously BSK 070

Covers the basics of grammar and the beginning writing process.

GEDW 0650 – Spelling and Grammar

Previously BSK 071

Reviews language mechanics, usage and spelling improvement.

GEDW 0850 – General Composition

Previously BSK 074

Provides systematic study of the steps in the writing process, focusing on sentence structure, grammar, punctuation, syntax and paragraph development, essay structure and organizational methods.

GEOG – Geography Courses School of Communication, Humanities & Social Sciences

GEOG 1096, 1196…1996 – Special Topics **1-6**
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

GEOG 1101 – Physical Geography **3**
Previously GEOG 101 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Introduces the physical elements of world geography through study of climate and weather, vegetation, soils, plate tectonics and the various landforms as well as the environmental cycles and distributions of these components with emphasis on their significance to humans.

GEOG 1102 – Human Geography **3**
Previously GEOG 102 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Introduces the human elements of world geography, providing a systematic analysis of world population, religion, language, ethnicity, economic development, political units and resource issues.

GEOG 2096, 2196...2996 – Special Topics **1-6**
(all courses ending in 96 are topics courses)

Previously GEOG 296 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents various topics. See *Schedule of Classes*.

GEOG 2201 – World Regional Geography **3**
Previously GEOG 201 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Combines elements of GEOG 1101 and 1102 to study the global inter-relationships of the physical environment and cultural characteristics, including ethnicity, population and development, on a regional basis.

GEOG 2275 – Cartography **3**
Previously GEOG 275 (Prerequisite: GEOG 1101 or GEOG 1102)

Covers the basic history of map-making and the various projections. Introduces basic concepts and techniques for the manipulation, analysis and graphic representation of spatial information. Includes processing, compilation and symbolization of spatial data and the application of related statistical techniques. Presents effective map layout and recent cartographic techniques.

GER - German Courses School of Communication, Humanities & Social Sciences

GER 2096, 2196…2996 – Special Topics **1-6**
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

GIS – Geographic Information Systems Courses School of Applied Technologies

GIS 1001 – Introduction to GIS **3**

Introduces concepts of Geographic Information Systems including applications, components, mapping, data acquisition and data capture. Laboratory component consists of exercises clearly demonstrating a number of typical uses for GIS software. Emphasis on understanding general concepts and theories that can be carried over to any number of existing GIS software packages. Global positioning system hardware and software also introduced. (30 contact hours theory and 45 hours contact lab)

GIS 1005 – CAD for GIS/Surveying **3**
Previously GIS 123 (Pre- or corequisite: CM 2205)

Computer-aided drafting for civil engineering, surveying and land development to create and edit point data, parcel area computations and boundary information.

Course Subject Code/Course Number – Course Name Credit Hours

GIS 1010 – Remote Sensing **3**
Previously GIS 207 (Pre- or corequisite: CM 2205 + MATH 1410)

Introduces students to the basic concepts in remote sensing and explores the applications of current technology. Topics to be covered will include image analysis, the application and usage of various sensor devices, target interactions, interpretation of aerial photographs, the uses of quantitative satellite data, laser scanning aerial photographs and satellite data applications. (30 theory +45 lab hours per term)

GIS 1096, 1196…1996 – Special Topics **1-6**
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

GIS 2001 – Geographic Information Systems Software Applications I **3**
Previously GIS 202 (Prerequisite: CIS 1513)

Builds upon concepts introduced in GIS 1001, covering vector and raster analysis procedures commonly utilized in Geographic Information Systems, including overlay, buffering, classification, network analysis and surface analysis. (30 theory +45 lab hours per term)

GIS 2005 – Intro to 3-D Computer Visualization Techniques **3**
Previously GIS 220L (Prerequisite: department approval)

Uses computer visualization software to give the student a broad base from which to create effective presentations strongly influenced by GIS applications. (30 theory +45 lab hours per term)

GIS 2095 – Cooperative Education **3**
Previously GIS 299 (Prerequisite: department approval)

Provides an opportunity for the student to work for one term on a cooperative basis in an appropriate training program. The position is paid.

GIS 2096, 2196...2996 – Special Topics **1–6**
(all courses ending in 96 are topics courses)

Previously GIS 296 (Prerequisite: department approval)

Topics vary based on the requests from the community and available software, hardware and instructors.

GIS 2097 – Independent Study **1–6**
Previously GIS 297 (Prerequisite: department approval)

Allows the student and instructor to define a specific problem in the area of the student's interest and directly related to the program. The student develops and executes a solution using analytical techniques appropriate to the problem. An oral presentation may be required.

GIS 2098 – Internship **3**
Previously GIS 298 (Prerequisite: department approval)

Provides an opportunity for the student to work for one term on a intern basis in an appropriate training program. The position is not paid.

GIS 2999 – Geographic Information Systems Software Applications II **3**
Previously GIS 203 (Prerequisite: GIS 2001; CIS 1284 or CIS 1275 or CIS 1250; or permission of the program chair)

Applies knowledge gained from previous course to develop individualized projects of interest. Project development will encompass the full range of procedural approaches from planning, data acquisition, analysis, output and presentation. (15 theory +90 lab hours per term)

GNHN – General Honors Courses School of Communication, Humanities & Social Sciences

GNHN 1096, 1196…1996 – Special Topics **1-6**
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

GNHN 1121 – General Honors: The Ancient Legacy 3
Previously GNHN 121A (Prerequisite: See page 55; department approval)

Introduces analysis of classic texts of the Greek, Hebrew, Roman and Christian traditions: ideas about virtue, knowledge, politics, religious faith and education.

GNHN 1122 – General Honors: The Modern Legacy 3
Previously GNHN 121M (Prerequisite: See page 55; department approval)

Introduces analysis of classic texts of Western culture from the Renaissance through the early 20th century: ideas about the individual, society, state, history, nature, progress and religion.

GNHN 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
Previously GNHN 221 (Prerequisite: See page 55; department approval)

Presents various topics. See *Schedule of Classes*

GNHN 2221 – Understanding Evil 3
(Prerequisite: See page 55; department approval)

Explores the human causes and responses to the evil so abundant in our world. Uses resources in history, sociology, psychology, philosophy and religion to begin to understand what motivates and enables these acts and what makes people choose to participate, remain bystanders, or become rescuers.

GTAP – General Trades Apprenticeship School of Applied Technologies

GTAP 1115 – General Trades Apprenticeship 5-7
Previously GTAP 198A (Prerequisite: current full-time employment in the general trades industry or department approval)

Provides 75–105 hours of classroom instruction covering safety, shop math, code, blueprint reading and other related instruction.

GTAP 1125 – General Trades Apprenticeship 5-7
Previously GTAP 198B (Prerequisite: current full-time employment in the general trades industry or department approval)

Provides 75–105 hours of classroom instruction covering safety, shop math, code, blueprint reading and other related instruction.

GTAP 1215 – General Trades Apprenticeship 5-7
Previously GTAP 198C (Prerequisite: current full-time employment in the general trades industry or department approval)

Provides 75–105 hours of classroom instruction covering safety, shop math, code, blueprint reading and other related instruction.

GTAP 1225 – General Trades Apprenticeship 5-7
Previously GTAP 198D (Prerequisite: current full-time employment in the general trades industry or department approval)

Provides 75–105 hours of classroom instruction covering safety, shop math, code, blueprint reading and other related instruction.

GTAP 1315 – General Trades Apprenticeship 5-7
Previously GTAP 198E (Prerequisite: current full-time employment in the general trades industry or department approval)

Provides 75–105 hours of classroom instruction covering safety, shop math, code, blueprint reading and other related instruction.

GTAP 1325 – General Trades Apprenticeship 5-7
Previously GTAP 198F (Prerequisite: current full-time employment in the general trades industry or department approval)

Provides 75–105 hours of classroom instruction covering safety, shop math, code, blueprint reading and other related instruction.

Course Subject Code/Course Number – Course Name Credit Hours

GTAP 1415 – General Trades Apprenticeship 5-7
Previously GTAP 198G (Prerequisite: current full-time employment in the general trades industry or department approval)

Provides 75–105 hours of classroom instruction covering safety, shop math, code, blueprint reading and other related instruction.

GTAP 1425 – General Trades Apprenticeship 5-7
Previously GTAP 198H (Prerequisite: current full-time employment in the general trades industry or department approval)

Provides 75–105 hours of classroom instruction covering safety, shop math, code, blueprint reading and other related instruction.

HIST – History Courses School of Communication, Humanities & Social Sciences

HIST 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

HIST 1101 – Western Civilization I 3
Previously HIST 101 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Emphasizes events, personalities, issues, rises and falls, covering ancient times through 1648.

HIST 1102 – Western Civilization II 3
Previously HIST 102 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Explores such topics as colonialism, the age of revolutions, expansionism and the Great Wars from 1648 to the present.

HIST 1161 – History of the United States I 3
Previously HIST 161 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Surveys economic, political, intellectual and social development of the U.S. from 1492 to 1877.

HIST 1162 – History of the United States II 3
Previously HIST 162 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Continues study begun in HIST 1161, covering 1865 to the present.

HIST 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
Previously HIST 296 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Presents various topics. See *Schedule of Classes*.

HIST 2230 – Twentieth-Century Russia 3
Previously HIST 230 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Surveys Russian History from czarist absolutism through communist totalitarianism to the tentative introduction of a pluralist society.

HIST 2240 – Vietnam: War, Politics and Culture 3
Previously HIST 240 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Emphasizes causes of the war, military and political aspects, conduct and consequences of years of conflict in Vietnam: issues surrounding U.S. involvement in Vietnam and changes in the culture, institutions and political thought of the U.S. during and after the war.

HIST 2260 – History of New Mexico 3

Previously HIST 260 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Surveys New Mexico's history from 1500 to the present: contributions of and interactions among Native Americans, Hispanics, Anglos and others.

HIST 2270 – The American West 3

Previously HIST 270 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Explores the people, cultures, processes, ideas and environmental factors that shaped the history of the West. Examines topics and exploration, migration and immigration, land use and misuse, western violence and experiences of various ethnic groups of the region.

HIST 2282 – Modern Latin American History 3

Previously HIST 282 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Introduces Latin American history from the beginning of the revolutionary period in 1810 to the present.

HIT – Health Information Technology Courses School of Health, Wellness & Public Safety

HIT 1010 – Introduction to Health Information Technology 1

Previously HIT 101 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12; or department approval)

Provides an overview of the Health Information Technology and Medical Coding programs and the health information profession as a career. Students are exposed to health care systems and organizations, accreditation associations, ethics, professionalism and confidentiality in the HIM field. A career in health information including job titles, salaries and future prospects is also covered.

HIT 1020 – Medical Terminology and Anatomy 3

Previously HIT 110 (Prerequisite: department approval)

Covers the study of the language of medicine, focusing on prefixes, suffixes, word roots and their combining forms. Course includes word construction, spelling, usage, comprehension and pronunciation. Systems approach is used to present anatomy and physiology, symptomatology, pathology and diagnostic/surgical procedures.

HIT 1030 – Health Data Content and Structure 4

Previously HIT 120 (Pre- or corequisite: HIT 1010)

Presents an overview of health care delivery and examines the role of various providers and disciplines of health care services and information system policies and procedures in this field. Emphasis is on origin, use, content and format of health records, storage, filing systems, record retention procedures and basic processing functions of the health information division, accreditation and licensure standards applicable to health records.

HIT 1040 – Principles of Diseases 3

Previously HIT 130 (Prerequisite: BIO 1310 + BIO 1392 + HIT 1020; or department approval)

Focuses on disease processes affecting the human body via an integrated approach to specific disease entities. The course includes a review of normal functions of the appropriate body systems. Diseases are studied in relationship to their etiology, pathology, physical signs and symptoms, diagnostic procedures, complications, treatment modalities and prognosis.

Course Subject Code/Course Number – Course Name Credit Hours

HIT 1051 – Pharmacology and Laboratory Procedures 3

(Prerequisite: BIO 1310 + BIO 1392 + HIT 1020; or department approval)

Presents an introduction to the principles of pharmacology and diagnostic testing procedures. Content includes drug terminology, abbreviations, drug effects, dosage, classifications and response to medications. Terminology associated with laboratory and diagnostic tests and their use in diagnosing and implications of resultant values are examined.

HIT 1060 – Health Information Management Systems 3

Previously HIT 140 (Prerequisite: IT 1010 + HIT 1030)

Provides an introduction to the use of information technology in the health care delivery system and the different computer applications found in health information divisions. Emphasis is on use of tools and techniques for the development of higher-level content in database processing, information and communication technologies, systems analysis and data quality/integrity. (30 theory + 45 lab hours per term)

HIT 1070 – Legal/Ethical Aspects of Health Information 3

Previously HIT 150 (Prerequisite: HIT 1030 or department approval)

Focuses on legal and regulatory requirements related to health information infrastructure, policies, rules and regulations for access and disclosure of medical information and patient confidentiality (HIPAA), release of information to authorized users, principles and organization of the judicial system and ethical standards of practice. Privacy issues and problems will be explored.

HIT 1090 – Health Information Practicum 1 1

Previously HIT 220 (Pre- or corequisite: HIT 1060 + HIT 1070 + BA 1131 + department approval)

Provides a simulated or clinical learning experience in a health information department. The experience focuses on the practice of skills related to the application of legal principles; the collection, storage, retention and analysis of health care data to develop insight, understanding and skill in medical record procedures. This is an unpaid work experience of a minimum of 40 hours. **$ Additional fees published in the *Schedule of Classes*.**

HIT 1096, 1196...1996 – Special Topics 1–6

(all courses ending in 96 are topics courses)

Previously HIT 296

Explores current topics in Health Information Technology.

HIT 2010 – Classification of Diseases I (ICD – CM) 3

Previously HIT 200 (Prerequisite: HIT 1020 + HIT 1030 + HIT 1040; or department approval)

Focuses on the principles, guidelines and conventions used in coding diagnoses and procedures using the International Classification of Diseases (ICD) Clinical Modifications (CM), Volumes 1, 2 and 3. Using case scenarios and medical records, students interpret medical record information, choose the required coding classification and assign and sequence codes. The concept of fraud and abuse is introduced. *(FOR MEDICAL CODING STUDENTS, Pre- or corequisite: HIT 1030 + HIT 1040)* (30 theory + 45 lab hours per term)

HIT 2020 – Classification of Diseases II 3

Previously HIT 215 (Prerequisite: HIT 2010 or department approval)

Focuses on intermediate ICD-CM coding applications, official coding and reporting guidelines, diagnostic/procedural groupings such as DRG and APC and other issues related to classification systems for maintaining specialized health information data. Interpreting medical record information, choosing required coding classification and assigning and sequencing codes correctly continue to be emphasized through medical records and case scenarios. Computerized classification systems will be used. (30 theory + 45 lab hours per term)

HIT 2030 – CPT Coding 3

Previously HIT 210 (Prerequisite: HIT 2010 or department approval)

Focuses on outpatient coding using CPT and HCPCS nomenclatures. Medical records and case scenarios are used to translate descriptive procedures into a numeric code(s) using the CPT coding manual, application of HCPCS terminology and current regulations and established guidelines. Medical record documentation requirements, guidelines for different payer classes, correlation between coding and billing and fraud and abuse issues are discussed. (30 theory + 45 lab hours per term)

HIT 2040 – Health Information Data Analysis 3

Previously HIT 240 (Prerequisite: IT 1010 + HIT 1030 + 1060 + 1090+ MATH 1210 or higher; or department approval)

Focuses on health care statistics and research and the practical application of health information concepts as they apply to health record systems and the health care industry. Institutional Review Board polices and processes, collection and retrieval and computation of hospital statistical data are covered as well as vital statistics and reportable diseases and conditions.

HIT 2050 – Health Information Supervision 3

Previously HIT 250 (Prerequisite: HIT 1030 + 1060 + 1090; or department approval)

Focuses on basic management functions using examples and situations specific to health information. Communication, motivation, budgeting, job analysis, recruitment, discipline, teamwork, committee representation and federal/state laws regarding personnel management are discussed and emphasized. Quality assessment and improvement standards and requirements of licensing, accrediting, fiscal and other regulatory agencies are presented.

HIT 2060 – Reimbursement Methodologies 2

Previously HIT 230A (Prerequisite: IT 1010 + HIT 1030 + HIT 2010)

Focuses on health care reimbursement and purpose of insurance and its benefits from a variety of government and third party payer sponsored health programs. Types of reimbursement methods, concept of managed care, various payment systems, fee schedules, charge description master and fraud and abuse are defined and analyzed. Students analyze, apply and/or calculate various prospective payment systems.

HIT 2070 – Coding Applications 2

Previously HIT 245 (Prerequisite: HIT 2020 + 2030 + 2060; or department approval)

Focuses on developing coding skills and the application of those skills to different types of medical records in a simulated work environment. Students code inpatient, emergency division, out patient surgery and outpatient medical records. The process of interpreting medical record information, choosing the required coding classification and assigning and sequencing codes correctly is addressed. (15 theory + 45 lab hours per term)

HIT 2090 – Medical Coding Practicum I 2

Previously HIT 246 (Prerequisite: HIT 1030 + 2020 + 2030 + 2060 + department approval)

Introduces students to the clinical practice of health information coding procedures through a simulated or onsite experience. Students code medical records for reimbursement and practice appropriate security measures. This is an unpaid experience of a minimum of 80 hours. **$ Additional fees published in the *Schedule of Classes.***

HIT 2096, 2196...2996 –Topics 1-6

(all courses ending in 96 are topics courses)

Previously HIT 296

Explores current topics in Health Information Technology.

HIT 2097 – Independent Study Variable

Previously HIT 297 (Prerequisite: department approval)

Student works with the instructor on specific topics directly related to the course or program of study. The meeting time is arranged between the student and the instructor.

HIT 2190 – Medical Coding Practicum II 2

Previously HIT 246A (Prerequisite: HIT 2090 + department approval)

Students code health information for reimbursement and practice appropriate security measures. This is an unpaid experience of a minimum of 80 hours. Builds on experiences attained in HIT 2090.

HIT 2290 – Health Information Practicum II 2

Previously HIT 260 (Pre- or corequisite: HIT 2030 + 2050 + 2060 + department approval)

Provides a simulated or clinical learning experience in a health care facility. Emphasis is on coding, qualitative analysis, quality assurance, utilization management and supervisory activities to further develop medical records knowledge and skills and develop critical thinking and problem solving skills in the areas of health information management. This is an unpaid work experience requiring a minimum of 80 hours.

HIT 2999 – Health Information Technology Seminar 1

Previously HIT 295 (Prerequisite: department approval. Pre- or corequisite: HIT 2290)

Focuses on reflection of health information technology course content, program and core exit competencies and current topics in health care.

HLTH – Health Courses School of Adult & General Education

HLTH 0196, 0296…0996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

HLTH 0850 – Introduction to Health Occupations 3

Previously HLTH 100

Explores various medical careers and introduces medical terminology and selected body systems. Integrates concepts with the study of anatomy, physiology and pathophysiology. (45 theory hours + 15 lab hours per term)

HLTH – Health Courses School of Health, Wellness & Public Safety

HLTH 1001 – Clinical Preparation 1

Previously HLTH 102

Designed to prepare School of Health, Wellness & Public Safety students for their clinical experience regardless of the health discipline they have chosen to study. The course will provide CPR, Blood Borne Pathogen, HIPPA, First Aid and OSHA certification. **$ Additional fees published in the *Schedule of Classes.***

HLTH 1096, 1196…1996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

HLTH 2096, 2196…2996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

HT – Hospitality and Tourism Courses School of Business & Information Technology

HT 1096, 1196...1996 – Special Topics 1–3

(all courses ending in 96 are topics courses)

Previously HT 296

Covers current topics in hospitality and tourism.

HT 1101 – Introduction to Tourism 3

Previously HT 101 (Prerequisite: RDG 0750)

Provides a broad overview of the hospitality and tourism industry. Topics will include the history, problems and operating procedures of various segments within hospitality and tourism. Career opportunities in hospitality management include hotels, restaurants, institutions, private clubs, casinos, resorts, consulting firms, convention management, travel agencies and cruise ships.

HT 1106 – Hotel Operations 3

Previously HT 106 (Prerequisite: RDG 0750)

Presents management concepts and the interdependence of hotel operations ranging from front office, security and housekeeping management to facilities, revenue management and guest services. (45 theory)

HT 1128 – Hotel/Motel Housekeeping Management 3

Previously HT 128 (Prerequisite: HT 1101 or department approval)

Covers the systematic approach to managing housekeeping operations in the hospitality industry.

HT 1131 – Club Management 3

Previously HT 131 (Prerequisite: HT 1101 or department approval)

Introduces club management. Topics include club boards of directors, service excellence, leadership, strategic management, club marketing, food and beverage operations, financial and computer systems.

HT 1132 – Hotel/Motel Human Resources Management 3

Previously HT 132 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12; or department approval)

Presents a systematic approach to human resources management in the hospitality industry and analyzes contemporary issues, practices and trends within the hospitality industry.

HT 1146 – Convention Management and Service 3

Previously HT 146 (Prerequisite: HT 1101 or department approval)

Focuses on convention and group business markets. Marketing and sales strategies and techniques are presented.

HT 1161 – Hotel/Motel Food and Beverage Management 3

Previously HT 161 (Prerequisite: HT 1101 or department approval)

Covers the challenges and responsibilities involved in managing a food and beverage operation.

HT 1164 – Food and Beverage Service 3

Previously HT 164 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12; or department approval)

Focuses on the management of food and beverage service outlets, cafeterias, coffee shops, room service, banquet areas, dining rooms and basic service principles with emphasis on the special needs of guests.

HT 2095 – Cooperative Education 4

Previously HT 299 (Prerequisite: department approval)

Provides an opportunity for a structured educational "paid" work experience related to a student's academic goals. Internship is a partnership between the student and both the educational institution and the employer, with specified responsibilities for each party. Requires a minimum of 150 hours and must involve a new learning experience.

HT 2096, 2196...2996 – Special Topics 1-3

(all courses ending in 96 are topics courses)

Previously HT 296

Covers current topics in hospitality and tourism.

Course Subject Code/Course Number – Course Name Credit Hours

HT 2097 – Independent Study 1-6

(all courses ending in 97 are independent study courses)

Previously HT 297 (Prerequisite: department approval)

Student works with the instructor on specific topics directly related to the course or program of study. The meeting time is arranged between the student and the instructor.

HT 2098 – Internship 4

Previously HT 298 (Prerequisite: department approval)

Provides an opportunity for a structured educational unpaid work experience related to a student's academic goals. Internship is a partnership between the student and both the educational institution and the employer with specified responsibilities for each party. Requires a minimum of 150 hours and must involve a new learning experience.

HT 2141 – Marketing of Hospitality Services 3

Previously HT 141 (Prerequisite: HT 1101 or department approval)

Employs concepts to develop, implement and evaluate a marketing plan to identify and reach prospective customers using marketing tactics specific to hospitality services.

HT 2201 – Hospitality Operations Management 3

(Pre- or corequisite: CULN 1101 or HT 1101 or department approval)

Provides an overview of the major segments of the hospitality industry, with a focus on basic management principles of each operational segment.

HT 2205 – Hospitality Industry Computer Systems 3

Previously HT 206 (Prerequisite: IT 1010; HT 1101 or department approval)

Explores the high-technology skills required in the tourism and hospitality industry. Reservations systems, room management and guest accounting, property management systems interfaces, food and beverage applications and management of information systems are emphasized. (45 theory + 15 lab hours per term)

HT 2210 – Food and Beverage Controls 3

Previously HT 168 (Prerequisite: HT 1101 or HT 1102 or department approval)

Introduces the process of resource control to reduce costs in food and beverage operations. Maximizing revenue and profit levels, effective budgeting and staffing and satisfying the demand of guests are stressed.

HT 2215 – Purchasing and Cost Controls 3

Previously HT 172 (Prerequisite: CULN 1102 or HT 1101. Recommended prerequisite: CULN 1112 or department approval)

Focuses on the development and implementation of an effective purchasing program involving issues such as supplier relations, supplier selection, negotiation and evaluation. The process of resource control and effective budgeting to reduce costs and maximize revenue is introduced.

HT 2225 – Gaming Operations and Management 3

Previously HT 253 (Prerequisite: HT 1101 or department approval)

Emphasizes the organizational structure of casinos and their personnel. Topics include gaming behavior, marketing, player rating, slot volatility, casino layout and table games management. The strategies and procedures that need to be used to protect the integrity of table games and the role of surveillance in the prevention and detection of scam artists and cheaters are examined.

HT 2228 – Gaming Controls **3**

Previously HT 254 (Prerequisite: HT 1101 or department approval)

Examines the regulatory systems and functions of gaming regulators. Topics include conducting licensing and background investigations, criminal activity and law enforcement and procedures for audits.

HT 2232 – Event Planning **3**

(Prerequisite: HT 1101 or department approval)

An overview of event planning ranging from special events, festivals, meetings and weddings. Focuses on design, planning and organization of events including marketing and volunteer management.

HT 2235 – Leadership and Management in the Hospitality Industry **3**

Previously HT 124 (Prerequisite: HT 1101 or department approval)

Explores quality concepts and tools within the hospitality industry. High-performance team building, strategic career plans and managing organizational change are covered.

HUC – Health Unit Coordinator Courses School of Health, Wellness & Public Safety

HUC 1010 – Health Unit Coordinator Theory and Lab **8**

Previously HUC 101L (Prerequisite: RDG 0750 + ENG 0750 + MATH 0750; or appropriate placement scores, see page 12; IT 0850 or department approval. Corequisite: HUC 1090)

Includes medical abbreviations and terminology, simple anatomy and physiology, transcription of doctor's orders, computerized patient information systems, communication skills, ethical/legal behavior and the role of a health unit coordinator. (8 weeks; 75 theory + 135 lab hours per term)

HUC 1090 – Health Unit Coordinator Clinical Practice **3**

Previously HUC 131C (Corequisite: HUC 1010)

Includes clinical experience in local hospitals and hospital out-patient clinics. (5 weeks; 135 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

HUC 1096, 1196...1996 – Special Topics **1-6**

(all courses ending in 96 are topics courses)

Previously HUC 296

Explore various topics of interest in the field of Health Unit Coordinating.

HUM – Humanities Courses School of Communication, Humanities & Social Sciences

HUM 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

HUM 1111 – Cultures and Civilization Ancient to Renaissance **3**

Previously HUM 111 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Introduces history, art, literature, religion and ideas of early world civilizations: Egypt, Mesopotamia, India, China, Greece, Rome, Europe, Africa and pre-Columbian America.

HUM 1121 – Cultures and Civilization Renaissance to Present **3**

Previously HUM 121 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Continues course of study begun in HUM 1111: history, art, literature, music and ideas of world civilizations from the Renaissance to present.

HUM 2096, 2196...2996 – Special Topics **1-6**

(all courses ending in 96 are topics courses)

Previously HUM 247 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents various topics. See *Schedule of Classes*.

IB – International Business Courses School of Business & Information Technology

(For IB courses, see BA courses on page 211.)

IMAP – Industrial Plant Maintenance Apprenticeship School of Applied Technologies

IMAP 1116 – Industrial Plant Maintenance Apprenticeship **5-7**

Previously 198A (Prerequisite: Current full-time employment in the industrial plant maintenance field or department approval)

Provides 75–105 hours of classroom instruction covering safety; industrial rules, policies and regulations: maintaining equipment and preventive measures and troubleshooting.

IMAP 1126 – Industrial Plant Maintenance Apprenticeship **5-7**

Previously 198B (Prerequisite: Current full-time employment in the industrial plant maintenance field or department approval)

Provides 75–105 hours of classroom instruction covering safety; industrial rules, policies and regulations: maintaining equipment and preventive measures and troubleshooting.

IMAP 1216 – Industrial Plant Maintenance Apprenticeship **5-7**

Previously 198C (Prerequisite: Current full-time employment in the industrial plant maintenance field or department approval)

Provides 75–105 hours of classroom instruction covering safety; industrial rules, policies and regulations: maintaining equipment and preventive measures and troubleshooting.

IMAP 1226 – Industrial Plant Maintenance Apprenticeship **5-7**

Previously 198D (Prerequisite: Current full-time employment in the industrial plant maintenance field or department approval)

Provides 75–105 hours of classroom instruction covering safety; industrial rules, policies and regulations: maintaining equipment and preventive measures and troubleshooting.

IMAP 1316 – Industrial Plant Maintenance Apprenticeship **5-7**

Previously 198E (Prerequisite: Current full-time employment in the industrial plant maintenance field or department approval)

Provides 75–105 hours of classroom instruction covering safety; industrial rules, policies and regulations: maintaining equipment and preventive measures and troubleshooting.

IMAP 1326 – Industrial Plant Maintenance Apprenticeship **5-7**

Previously 198F (Prerequisite: Current full-time employment in the industrial plant maintenance field or department approval)

Provides 75–105 hours of classroom instruction covering safety; industrial rules, policies and regulations: maintaining equipment and preventive measures and troubleshooting.

IMAP 1416 – Industrial Plant Maintenance Apprenticeship **5-7**

Previously 198G (Prerequisite: Current full-time employment in the industrial plant maintenance field or department approval)

Provides 75–105 hours of classroom instruction covering safety; industrial rules, policies and regulations: maintaining equipment and preventive measures and troubleshooting.

IMAP 1426 – Industrial Plant Maintenance Apprenticeship **5-7**

Previously 198H (Prerequisite: Current full-time employment in the industrial plant maintenance field or department approval)

Provides 75–105 hours of classroom instruction covering safety; industrial rules, policies and regulations: maintaining equipment and preventive measures and troubleshooting.

IT – Information Technology Courses School of Adult & General Education

IT 0150 – Beginning Computer Basics for ESL Students 1
Provides English as a Second Language (ESL) students with limited computer skills the opportunity to learn parts of computer systems, basic computer vocabulary and mouse control using hands-on activities. (10 theory + 10 lab hours per term)

IT 0196, 0296...0996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
Presents various topics in computer science. See *Schedule of Classes*

IT 0250 – Introductory E-mail for ESL Students 1
Provides English as a Second Language (ESL) students with practice using and understanding concepts related to email systems. Students will access and customize their school accounts. Students will also sign up for and utilize at least one other email system. Students will also constantly practice using these email systems so that they can overcome any concerns with signing in and operating email accounts. (10 theory + 10 lab hours per term)

IT 0450 – Beginning Computer Basics 1
Previously IT 090
Provides basic computer vocabulary, hands-on mouse skills and computer confidence for students with no computer experience. (10 theory + 10 lab hours per term)

IT 0530 – Introductory Internet 1
Previously IT 094
Provides opportunities to develop beginning internet skills. Students will learn how to use the Internet as a learning aid and research tool. Recommended for entry-level students. (10 theory + 10 lab hours per term)

IT 0540 – Introductory E-mail 1
Previously IT 093
Provides opportunities to develop beginning electronic mail skills. Students will learn how to use CNM's school-wide portal as well as other e-mail systems. Recommended for entry-level students. (10 theory + 10 lab hours per term)

IT 0620 – Introductory Operating Systems 1
Previously IT 092
Provides opportunities to develop beginning operating system skills and file management. Students will learn how to use an operating system environment. Recommended for entry-level students. (10 theory + 10 lab hours per term)

IT 0630 – Introductory Word Processing 1
Previously IT 091
Provides opportunities to develop beginning word-processing skills. Students will learn how to create word-processed documents. Recommended for entry-level students. (10 theory + 10 lab hours per term)

IT 0650 – Computer Basics 2
Previously IT 098
Provides opportunities to develop beginning computer skills in a half-term course. Includes common word processing tasks, internet and understanding computer system components. Introduces concepts used in many Adult and Developmental Education courses. (20 theory + 20 lab hours per term)

IT 0850 – Basic Keyboarding/Computer Skills 3
Previously IT 100
Emphasizes beginning keyboarding, computer concepts, internet skills and basic word processing. Recommended for entry-level students. (30 theory + 30 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

IT 0870 – Basic Keyboarding (Self-Paced) 2
Previously IT 099
Emphasizes beginning keyboarding using the touch method. Recommended for entry-level students. (20 theory + 20 lab hours per term)

IT 0920 – Basic Projects 1
Previously IT 095
Students will participate in a collaborative classroom environment creating group projects using a variety of programs. This type of classroom allows students to gain skills in the creation of spreadsheets or demonstration software while also developing the skills needed to be successful in the workplace. (10 theory + 10 lab hours per term)

IT – Information Technology Courses School of Business & Information Technology

IT 1010 – Introduction to Computers 3
Previously IT 101 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12. Recommended prerequisite: 25 wpm keyboarding skill.)
Introduces fundamental computer literacy, which includes hardware and software topics, with lecture and hands-on instruction. Computer applications include operating systems, word processing, spreadsheets, databases and the basics of using networked computers (e.g., e-mail and the Internet). (30 theory + 30 lab hours per term)

IT 1020 – Integrating Business and Technology 3
Previously IT 102 (Prerequisite: RDG 0750 + ENG 0750; or appropriate placement scores, see page 12; or department approval)
Introduces the process and methods of Enterprise Architecture in the operation of a business organization. Using the concept of a framework, students will learn to consider the design and operation of a business from different aspects, perspectives and disciplines. Case studies and real-life problems are used to study about technology in the context of business. Students will learn to develop a framework and strategy to make practical business decisions and learn to work together to successfully meet business goals.

IWAP – Iron Worker Apprenticeship School of Applied Technologies

IWAP 1116 – Iron Worker Apprenticeship 5-7
Previously IWAP 198A (Prerequisite: current full-time employment in the iron worker industry or department approval)
Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, tools, equipment, supplies, blueprint reading, layout and code interpretation.

IWAP 1126 – Iron Worker Apprenticeship 5-7
Previously IWAP 198B (Prerequisite: current full-time employment in the iron worker industry or department approval)
Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, tools, equipment, supplies, blueprint reading, layout and code interpretation.

IWAP 1216 – Iron Worker Apprenticeship 5-7
Previously IWAP 198C (Prerequisite: current full-time employment in the iron worker industry or department approval)
Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, tools, equipment, supplies, blueprint reading, layout and code interpretation.

IWAP 1226 – Iron Worker Apprenticeship 5-7
Previously IWAP 198D (Prerequisite: current full-time employment in the iron worker industry or department approval)
Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, tools, equipment, supplies, blueprint reading, layout and code interpretation.

IWAP 1316 – Iron Worker Apprenticeship 5-7
Previously IWAP 198E (Prerequisite: current full-time employment in the iron worker industry or department approval)

Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, tools, equipment, supplies, blueprint reading, layout and code interpretation.

IWAP 1326 – Iron Worker Apprenticeship 5-7
Previously IWAP 198F (Prerequisite: current full-time employment in the iron worker industry or department approval)

Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, tools, equipment, supplies, blueprint reading, layout and code interpretation.

IWAP 1416 – Iron Worker Apprenticeship 5-7
(Prerequisite: current full-time employment in the iron worker industry or department approval)

Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, tools, equipment, supplies, blueprint reading, layout and code interpretation.

IWAP 1426 – Iron Worker Apprenticeship 5-7
(Prerequisite: current full-time employment in the iron worker industry or department approval)

Provides 75–105 hours of related classroom instruction covering orientation, safety, shop and trade math, tools, equipment, supplies, blueprint reading, layout and code interpretation.

JOUR – Journalism Courses School of Communication, Humanities & Social Sciences

JOUR 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

JOUR 1171 – Writing for the Media I 3
Previously JOUR 171 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; or department approval)

Introduces methods and skills of journalism, emphasizing journalistic conventions, news gathering and news writing for print and broadcast media.

JOUR 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)

Previously JOUR 296 (Prerequisite: JOUR 1171 or department approval)

Covers various topics related to the theory and practice of journalism.

JOUR 2271 – Writing for the Media II 3
Previously JOUR 271 (Prerequisite: JOUR 1171 or department approval)

Emphasizes advanced skills and professional journalistic conventions, gathering and writing news for print and broadcast media, including a variety of types of stories and legal and ethical topics.

JOUR 2290 – Journalistic Practice 3
Previously JOUR 298 (Prerequisite: JOUR 1171 + department approval)

Provides opportunities for internship in working with journalism professionals and for conducting independent research and developing journalistic skills. Open to anyone but targeted for students working in the mass media.

JUD – Judicial Studies Courses School of Health, Wellness & Public Safety

JUD 1096, 1196...1996 – Special Topics 1–6
(all courses ending in 96 are topics courses)

Previously JUD 296 (Prerequisite: department approval)

Explores current topics in judicial studies.

JUD 1110 – Introduction to Judicial Studies 3
Previously JUD 101 (Recommend Prerequisite: ENG 0950 + RDG 0950 or appropriate placement scores, see page 12; or department approval)

Introduces concepts about the New Mexico judiciaries. Includes tracking of a civil and criminal case in each court. Familiarizes the student with the definition and use of legal terms.

JUD 1120 – Introduction to Court Operations and Ethics 2
Previously JUD 102 (Recommend Prerequisite: ENG 0950 + RDG 0950 or appropriate placement scores, see page 12; or department approval)

Introduces concepts such as ethical and specific court operation issues with an emphasis on ethics in the workplace. Presented jointly by Judicial Education Center and CNM faculty.

JUD 2095 – Cooperative Education 4
Previously JUD 299 (Prerequisite: department approval)

Requires students to work a minimum of 150 hours at court sites. The student is paid by the court and is jointly supervised by CNM and the employer.

JUD 2096, 2196...2996 – Special Topics 1-3
(all courses ending in 96 are topics courses)

Previously JUD 296 (Prerequisite: department approval)

Explores current topics in judicial studies.

JUD 2097 – Independent Study Variable
Previously JUD 297 (Prerequisite: department approval)

Explores a specific problem defined by student and instructor in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to solve the problem. An oral presentation may be required.

JUD 2098 – Internship 4
Previously JUD 298 (Prerequisite: department approval)

Requires students to work a minimum of 150 hours at court sites. CNM and the employer jointly supervise the student.

JUD 2110 – Principles of Court Management 3
(Prerequisite: JUD 1110 or department approval)

Introduces the basic functions of court management including budgeting, human relations, leadership and supervisory skills, case management, information management, facilities management and strategic planning.

LAND – Landscaping Courses School of Applied Technologies

LAND 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

LAND 1101 – Plant Science 3
Previously LAND 101 (Prerequisite: MATH 0550 or appropriate placement scores, see page 12; or department approval. Corequisite LAND 1192)

Introduces the fundamental principles of horticulture. Covers plant nomenclature, plant classification, plant processes, propagation techniques, plant physiology, plant pathology and various uses of plant materials.

LAND 1192 – Plant Science Lab 1
Previously LAND 101L (Prerequisite: MATH 0550 or appropriate placement scores, see page 12; or department approval. Corequisite LAND 1101)

Introduces the fundamentals practices of horticulture. Covers plant collecting and identification, classification, growth and development, practical propagation and planting techniques. (45 lab hours a term)

LAND 1201 – Soil Science **3**

Previously LAND 102 (Prerequisite: MATH 0550 or appropriate placement scores, see page 12; or department approval. Corequisite LAND 1292)

Introduces the student to soils and their various classifications, function and analysis. Covers soils biology, root zone interactions, nutrient cycling and safety.

LAND 1292 – Soil Science Lab **1**

Previously LAND 102L (Prerequisite: MATH 0550 or appropriate placement scores, see page 12; or department approval. Corequisite LAND 1201)

Introduces the student to soil analysis techniques, practical nutrient management, basic field exercises, labs and field safety. (45 lab hours a term)

LAND 1301 – Landscape Irrigation **3**

Previously LAND 103 (Prerequisite: MATH 0550 or appropriate placement scores, see page 12; or department approval)

Presents principle and techniques of irrigation design with an emphasis on water conservation. Introduces component identification, basic hydraulics, hydrostatics, hydrodynamics and system design and safety.

LAND 1392 – Landscape Irrigation Lab **1**

Previously LAND 103L

Introduces the student to the fundamentals of irrigation system assembly, maintenance and repair with an emphasis on water conservation and system auditing. (45 lab hours a term)

LAND 1401 – Integrated Pest Management **3**

Previously LAND 104 (Prerequisite: MATH 0550 or appropriate placement scores, see page 12; or department approval)

Covers the principles and techniques for proper and environmentally responsible IPM. Focuses on topics such as pest identification, pest physiology, pest management, laws and environmental regulations and safety.

LAND 1501 – Landscape Design **3**

Previously LAND 105 (Prerequisite: MATH 0550 or appropriate placement scores, see page 12; or department approval)

Presents the fundamental principles of landscape design such as purpose, color, balance, symmetry, functionality, plant selection, with an emphasis on water conservation and client involvement.

LAND 2096, 2196...2996 – Special Topics **1–6**

(all courses ending in 96 are topics courses)

Previously LAND 296

Covers problems and the advanced techniques that landscaping professionals use in responding to them.

LAND 2201 – Plant Selection **3**

Focuses on appropriate plant selection for various landscaping situations such as residential, commercial, xeric, aquatic, interiorscapes and other pertinent applications.

LAND 2205 – Landscape Irrigation Design II **3**

(Prerequisite: LAND 1301 or department approval)

This course will build on the fundamental hydraulic principles presented in LAND 103 and expands knowledge, skills and abilities to gain competencies in rotor systems, drip system and water auditing.

LAND 2210 – Water Features **3**

This class will introduce the student to all aspects of proper water feature installation techniques that range from still water bogs to water falls and larger ponds. (45 theory hours + 30 lab hours per term)

LAND 2997 – Independent Study **Variable**

Previously LAND 297 (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

Course Subject Code/Course Number – Course Name Credit Hours

LAND 2995 – Cooperative Education **3**

Previously LAND 299 (Prerequisite: department approval)

Employs the student at an approved program-related work site and applies learned theory based on goals and objectives.

LPNR – Licensed Practical Nurse Refresher Courses School of Health, Wellness & Public Safety

LPNR 2010 – Refresher Theory/Lab **7**

Previously LPNR 155L

Covers medical-surgical and specialty-nursing trends, procedures and pharmacology. (6 weeks; 94 theory + 10 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

LPNR 2090 – Refresher Clinical Experience (CR/NC) **2**

Previously LPNR 165C

Includes medical-surgical clinical experiences, administration of medications and patient care. *(Must have had a valid LPN license + professional CPR certified. Pre- or corequisite: LPNR 2010)*

MATH – Mathematics Courses School of Adult & General Education

MATH 0196, 0296...0996 – Special Topics **1-3**

(all courses ending in 96 are topics courses)

Previously MATH 096

Presents various topics in developmental math.

MATH 0440 – Math Anxiety **1**

Previously MATH 092

Offers students a chance to gain understanding of math anxiety and develop techniques to modify behaviors through the use of group discussion, journal entries and math study skills. (20 theory hours per term)

MATH 0450 – Introduction to Calculators **1**

Previously MATH 094

Prepares students in MATH 0950 and below to use calculators in classes and everyday life. (20 lab hours per term)

MATH 0550 – Basic Mathematics **3**

Previously MATH 097 (Prerequisite: Accuplacer Arithmetic score between 0-30 or equivalent.)

Reviews whole numbers and decimals. Presents fractions, ratio and proportion and percents. Introduces basic geometry and measurement concepts. This course is typically offered in two different formats. Collaborative is a traditional/lecture style class that incorporates lecture, individual and group work and individual and group projects. In the self-paced format, students work at their own pace to move through the material. Self-paced courses are open entry/open exit and are listed in the *Schedule of Classes* with the note (!!) (45 theory hours + 15 lab hours per term)

MATH 0750 – Basic College Mathematics **3**

Previously MATH 099 (Prerequisite: MATH 0550 or appropriate placement scores, see page 12)

Integrates topics from basic mathematics, geometry and algebra. Helps prepare students to enter programs in the School of Business & Information Technology, the School of Applied Technologies, the School of Health Wellness & Public Safety or MATH 0930. This course is typically offered in three different formats. Collaborative is a traditional/lecture style class that incorporates lecture, individual and group work and individual and group projects. In the self-paced format, students work at their own pace to move through the material. Self-paced courses are open entry/open exit and are listed in the *Schedule of Classes* with the note (!!) In the project-based format, students use projects to reinforce the objectives for the course. Students will work in groups on projects that cover each of the topics required for completion of the class. (45 theory hours + 15 lab hours per term)

MATH 0930 – Algebraic Problem Solving I **3**

Previously MATH 100A (Prerequisite: MATH 0750 or appropriate placement scores, see page 12)

Presents the first of a two-course series in elementary algebra. Includes signed numbers, solving linear equations, formulas and graphing. This course is typically offered in two different formats. Collaborative is a traditional/lecture style class that incorporates lecture, individual and group work and individual and group projects. In the self-paced format, students work at their own pace to move through the material. Self-paced courses are open entry/open exit and are listed in the *Schedule of Classes* with the note (!!) Satisfies prerequisite for MATH 0940, MATH 1110 (MATH 0940 is recommended) and MATH 1210. (45 theory hours + 15 lab hours per term)

MATH 0940 – Algebraic Problem Solving II **3**

Previously MATH 100B (Prerequisite: MATH 0930)

Presents the second of a two-course series in elementary algebra. Includes exponents and polynomials, factoring, solving systems of equations and quadratics. This course is typically offered in two different formats. Collaborative is a traditional/lecture style class that incorporates lecture, individual and group work and individual and group projects. In the self-paced format, students work at their own pace to move through the material. Self-paced courses are open entry/open exit and are listed in the *Schedule of Classes* with the note (!!) Satisfies prerequisite for MATH 1310. (45 theory + 15 lab hours per term)

MATH 0950 – Algebraic Problem Solving **3**

Previously MATH 100 (Prerequisite: Accuplacer Elementary Algebra score of 72)

Covers same material as MATH 0930 and MATH 0940 at a faster pace. One-term course designed for students with demonstrated ability in basic algebra. Satisfies prerequisite for MATH 1110, 1210 and 1310. (45 theory hours + 15 lab hours per term)

MATH – Mathematics Courses School of Math, Science & Engineering

MATH 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

MATH 1110 – Mathematics for Elementary School Teachers I **3**

(Prerequisite: MATH 0930 or appropriate placement scores, see page 12)

Investigates the representation of rational numbers and rational number arithmetic, including base-ten and decimal numbers, integers, fractions and arithmetic operations on these sets. Problem solving is emphasized throughout.

MATH 1115 – Mathematics for Elementary School Teachers II **3**

(Prerequisite: MATH 0930 or appropriate placement scores, see page 12)

Develops basic geometric concepts including rigid transformations and congruence; dilations and similarity; length, area and volume; systems of measurement and unit conversions; connections to coordinate geometry. Problem solving is emphasized throughout.

MATH 1210 – Methods of Problem Solving **4**

Previously MATH 119 (Prerequisite: MATH 0930 or appropriate placement scores, see page 12)

Presents strategies for solving mathematical problems relying heavily on inductive reasoning, sequences, set theory, combinatorics, probability, descriptive statistics and algebraic modeling (linear and non-linear).

Course Subject Code/Course Number – Course Name Credit Hours

MATH 1310 – Intermediate Algebra **4**

Previously MATH 120 (Prerequisite: MATH 0940 or MATH 0950 or appropriate placement scores, see page 12)

Investigates exponents and polynomial, rational and radical expressions and equations. Introduces graphing and functions. Graphing calculator may be required for this course. Please see class syllabus for requirements.

MATH 1315 – College Algebra **3**

Previously MATH 121(Prerequisite: MATH 1310 or appropriate placement scores, see page 12)

Focuses on functions and their graphs; investigation of linear, quadratic, polynomial, rational, exponential and logarithmic functions. Graphing calculator may be required for this course. Please see class syllabus for requirements.

MATH 1316 – College Algebra Workshop **1**

Previously MATH 122 (Corequisite: MATH 1315 + department approval)

Provides opportunity to explore advanced topics and applications of college algebra through collaborative problem solving.

MATH 1320 – A Survey of Mathematics **3**

Previously MATH 129 (Prerequisite: MATH 1210 or MATH 1310 or appropriate placement scores, see page 12)

Focuses on the creative nature of mathematics through problems, readings, discussions of topics such as set theory, logic, number theory, basic geometry and probability.

MATH 1330 – Introduction to Probability and Statistics **3**

Previously MATH 145 (Prerequisite: MATH 1210 or MATH 1310 or appropriate placement scores, see page 12)

Introduces basic concepts in probability and statistics—simple data analysis and descriptive statistics, probability and probability models, sampling and statistical inference—with applications from varied fields. Graphing calculator may be required for this course. Please see class syllabus for requirements.

MATH 1340 – Geometry for Design **3**

Previously MATH 206 (Prerequisite: high-school geometry + MATH 1310)

Presents the mathematical basis of geometric practices used in structural and decorative design. Surveys the major historical approaches to geometric study: Euclidean, descriptive, transformational, combinatorial, ornamental. Aesthetic-technological connections in cultural context.

MATH 1410 – Trigonometry **3**

Previously MATH 123 (Prerequisite: MATH 1315 or MATH 1415 or appropriate placement scores, see page 12)

Explores trigonometric functions and their inverses, including radian and degree measure, basic trigonometric identities, polar coordinates, solving triangles and other applications. A Graphing calculator, TI 83 or TI 84, is required for this course. Other graphing calculator models need instructor approval.

MATH 1415 – Advanced Algebra **4**

Previously MATH 150 (Prerequisite: MATH 1315 or appropriate placement scores, see page 12)

Explores functions (particularly exponential and logarithmic), conics, sequences and series and systems of equations using graphing calculators. A Graphing calculator, TI 83 or TI 84, is required for this course. Other graphing calculator models need instructor approval.

MATH 1460 – Elements of Calculus I **3**

Previously MATH 180 (Prerequisite: MATH 1315 or MATH 1415 or appropriate placement scores, see page 12)

Presents the intuitive concepts, basic properties and applications of derivatives and definite integrals. Focuses on the applications of these topics to the managerial, social and life sciences. Designed for business, social science and life science majors. A Graphing calculator, TI 83 or TI 84, is required for this course. Other graphing calculator models need instructor approval.

MATH 1465 – Elements of Calculus II **3**

Previously MATH 181(Prerequisite: MATH 1460)

Continues course of study begun in MATH 1460. Presents intensive study of substitution, integration by parts, numerical integration; introduces multivariate calculus and some differential equations. A Graphing calculator, TI 83 or TI 84, is required for this course. Other graphing calculator models need instructor approval.

MATH 1710 – Calculus I **4**

Previously MATH 162 (Prerequisite: MATH 1410 + MATH 1415; or appropriate placement scores, see page 12)

Introduces the intuitive, numerical and theoretical concepts of limits, continuity, differentiation and integration. Includes the study of extrema, curve sketching and applications involving algebraic, exponential, logarithmic and trigonometric functions. Designed for mathematics, science and engineering majors. A Graphing calculator, TI 83 or TI 84, is required for this course. Other graphing calculator models need instructor approval.

MATH 1715 – Calculus II **4**

Previously MATH 163 (Prerequisite: MATH 1710)

Continues course of study begun in MATH 1710. Covers integration techniques, numerical integration, improper integrals, some differential equations, series and applications. A Graphing calculator, TI 83 or TI 84, is required for this course. Other graphing calculator models need instructor approval.

MATH 2096, 2196...2996 – Special Topics **3**

(all courses ending in 96 are topics courses)

Previously MATH 296 (Prerequisite: varies)

Presents various topics. See *Schedule of Classes*.

MATH 2110 – Mathematics for Elementary School Teachers III **3**

(Prerequisite: MATH 1110 + MATH 1115)

Investigates algebra from the viewpoint of the elementary curriculum with an emphasis on proportional and linear relationships. Includes topics from probability and statistics, with connections to other topics in the elementary curriculum. Problem solving is emphasized throughout.

MATH 2710 – Calculus III **4**

Previously MATH 264 (Prerequisite: MATH 1715)

Continues course of study begun in MATH 1715, including multivariate and vector calculus: level curves and surfaces, partial derivatives, gradients, tangent planes, directional derivatives, multiple integrals, cylindrical and spherical coordinates, applications. A Graphing calculator, TI 83 or TI 84, is required for this course. Other graphing calculator models need instructor approval.

MATH 2810 – Applied Linear Algebra **3**

Previously MATH 280 (Prerequisite: MATH 1715)

Presents systems of linear equations and matrices. Introduction to vector spaces and linear transformations. Rank, determinants, eigenvalues and eigenvectors. Applications. Efficient computational and numerical methods are studied.

Course Subject Code/Course Number – Course Name Credit Hours

MATH 2910 – Applied Ordinary Differential Equations **3**

Previously MATH 285 (Prerequisite: MATH 1715. Recommended prerequisite: MATH 2710)

Includes the elementary theory of ordinary differential equations, numerical methods, phase plane analysis, introduction to transform methods.

MATT – Machine Tool Technology Courses School of Applied Technologies

MATT 1001 – Metals Math I **2**

Previously MATT 101 (Prerequisite: MATH 0750 + RDG 0750; or appropriate placement scores, see page 12; or department approval)

Presents whole numbers, fractions and decimals, shop geometry and algebra, formulas and equations and the Pythagorean theorem. Emphasizes is on developing problem solving skills.

MATT 1005 – Metals Blueprint Reading I **2**

Previously MATT 102 (Prerequisite: MATH 0750 + RDG 0750; or appropriate placement scores, see page 12; or department approval)

Covers the interpretation of basic manufacturing and fabrication drawings, terminology, orthographic projection, sectional views, dimensions, tolerances, symbols and drawing standards.

MATT 1030 – Metals Math II **2**

Previously MATT 111 (Prerequisite: MATT 1001 or department approval)

Provides basic shop algebra, formulas, geometry and triangulation. Covers calculation of areas, volumes, material requirements, angles, applied trigonometry and advanced shop math applications.

MATT 1035 – Metals Blueprint Reading II **2**

Previously MATT 113 (Prerequisite: MATT 1005 or department approval)

Continues a review of basic shop blueprint interpretation, provides interpretation of complex manufacturing and fabrication drawings including sectional views, tolerances and allowances, surface texture and assembly drawings.

MATT 1060 – Machine Tool Technology Skills **3**

Previously MATT 173

Covers basic knowledge and upgrade skills in the machine tool industry including safety, hand tools, lathe, mill, bench work, measurement, blueprint reading and shop math. (15 theory + 75 lab hours per term)

MATT 1065 – Metallurgy **2**

Previously MATT 202

Introduces the basic science of metals including structure, properties, alloying, weldability and testing of ferrous and non-ferrous metals with emphasis on machining performance and applications.

MATT 1092 – Basic Lathe Principles **2**

Previously MATT 103L (Prerequisite: MATH 0750 + RDG 0750; or appropriate placement scores, see page 12; or department approval)

Introduces basic engine lathe principles and operations. Includes safety, setup, speeds and feeds, workholding devices and tooling, facing, turning, chamfering, shouldering and tailstock operations. (75 lab hours per term)

MATT 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

MATT 1192 – Basic Milling Machine Principles **2**

Previously MATT 104L (Prerequisite: MATH 0750 + RDG 0750; or appropriate placement scores, see page 12; or department approval)

Introduces basic milling machine principles and operations. Covers safety, basic setup, speeds and feeds, tooling, workholding devices, squaring, step milling, drilling, reaming and tapping. (75 lab hours per term)

MATT 1292 – Basic Supporting Machine Tool Principles 2
Previously MATT 105L (Prerequisite: MATH 0750 + RDG 0750; or appropriate placement scores, see page 12; or department approval)

Introduces drill press, bandsaw, pedestal grinder and handtool principles and operations. Covers safety, care and use of hand tools, layout, toolbit grinding and machine care and maintenance. (75 lab hours per term)

MATT 1392 – Basic Measurement and Inspection 2
Previously MATT 108L (Prerequisite: MATH 0750 + RDG 0750; or appropriate placement scores, see page 12; or department approval)

Provides practical exercises in basic metal shop measurement and inspection techniques, including use of rules, calipers, micrometers, comparison instruments and inspection reports. (75 lab hours per term)

MATT 1492 – Intermediate Lathe Principles 2
Previously MATT 117L (Prerequisite: MATT 1092 or department approval)

Reviews basic engine lathe principles and operations with training in safety, precision turning and facing, production turning, taper turning, carbide tooling applications, power cutoff, boring, single point threading and basic CNC turning set up and operation. (75 lab hours per term)

MATT 1592 – Intermediate Milling Machine Principles 2
Previously MATT 120L (Prerequisite: MATT 1192 or department approval)

Continues a review of basic milling principles and operations, training offers safety, climb and conventional milling methods, hole production, slotting, pocket milling, rotary table work and basic CNC milling set-up and operation. (75 lab hours per term)

MATT 1692 – Intermediate Supporting Machine Tool Principles 2
Previously MATT 121L (Prerequisite: MATT 1292 or department approval)

Presents concentrated training in safety, surface grinding, tool reconditioning, production support and advanced quality assurance methods. (75 lab hours per term)

MATT 1792 – Computer Numerical Control I 2
Previously MATT 122L (Prerequisite: MATT 1001 + MATT 1005; or department approval)

Presents basic computer skills necessary to program, set up and operate CNC milling and turning centers. Covers CNC manuscript and tape preparation, program troubleshooting and editing, tooling and workholding and fundamentals of CNC operation. (75 lab hours per term)

MATT 2005 – Machine Tool Technology CAD/CAM 2
Previously MATT 214 (Prerequisite: MATT 1792)

Presents computer-assisted drafting as applied in machine tool technology on hardware typically found in the machine shop with specific instruction offered in CADKEY software.

MATT 2025 – Advanced Machine Tool Technology Skills 3
Previously MATT 174 (Prerequisite: MATT 1060 or department approval)

Provides advanced instruction in safety, lathe, mill, blueprint reading and shop math. (15 theory + 75 lab hours per term)

MATT 2092 – Advanced Lathe Principles 2
Previously MATT 208L (Prerequisite: MATT 1492 or department approval)

Reviews carbide tooling applications, boring and threading. Covers safety, setup and use of soft jaws and advanced production and CNC turning techniques. (75 lab hours per term)

MATT 2096, 2196...2996 – Special Topics 1–6
(all courses ending in 96 are topics courses)

Previously MATT 296 (Prerequisite: department approval)

Enables students to pursue studies in specialized areas. This class may also be taken as an independent or guided study, as a refresher course or to sharpen skills prior to employer exams.

Course Subject Code/Course Number – Course Name Credit Hours

MATT 2097 – Independent Study 1-6
Previously MATT 297 (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

MATT 2192 – Advanced Milling Machine Principles 2
Previously MATT 216L (Prerequisite: MATT 1592 or department approval)

Reviews rotary table work and locational operations. Offers safety, carbide shell mills, complex milling set-ups and advanced production and CNC milling techniques. (75 lab hours per term)

MATT 2292 – Advanced Supporting Machine Tool Principles 2
Previously MATT 217L (Prerequisite: MATT 1692 or department approval)

Covers production support, safety, advanced surface grinding set ups and operations, assembly techniques, production inspection techniques to ANSI standards and CNC set-up and operation for production applications. (75 lab hours per term)

MATT 2392 – Computer Numerical Control II 2
Previously MATT 218L (Prerequisite: MATT 1792 or department approval)

Reviews programming, manuscript and tape preparation and editing. Presents various programming languages, subroutines and interactive graphic programming. (75 lab hours per term)

MATT 2999 – Machine Tool Technology Capstone Course 1
Previously MATT 295 (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies.

MEMS – Micro-Electro-Mechanical Systems Courses School of Applied Technologies

MEMS 1001 – Introduction to MEMS 3
Previously MEMS 101

Covers the theory, construction methods, terminology and application of this emerging field. MEMS, micro-machines and nanotechnology covers devices and systems ranging from DMDs (Digital Mirror Devices) used in Internet and communications switching systems, nano-inductors used in RF systems to biomedical "lab on a chip" systems which draw samples, via nanopumps, to identify sample components via infrared spectroscopy. (30 theory + 45 lab hours per term)

MEMS 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

MEMS 2001 – MEMS Manufacturing Process 5
Previously MEMS 220 (Prerequisite: MEMS 1001 + ELEC 1010; or department approval)

Covers the various construction methods used to manufacture MEMS components and systems. Bulk micro-machining, surface micro-machining processes such as SUMMIT IV, MUMPS will be covered in detail.

MEMS 2005 – MEMS Design I 3
Previously MEMS 221 (Prerequisite: MEMS 1001 + MEMS 2001; or department approval)

Introduces MEMS design techniques and standards via MEMS CAD software. Students will design simple MEMS components using industrial and research MEMS software. (30 theory + 45 lab hours per term)

MEMS 2010 – MEMS Design II 3
Previously MEMS 223 (Prerequisite: MEMS 2005 or department approval)

Introduces MEMS design techniques and standards via MEMS CAD software. Students will design MEMS components and systems using industrial MEMS CAD software. Students will also be introduced to MEMS analyst software. (30 theory + 45 lab hours per term)

MEMS 2015 – MEMS Manufacturing Technology Theory 3

Previously MEMS 225 (Prerequisite: SMT 2001 + SMT 2092; or department approval. Corequisite: MEMS 2092)

Introduces Micro Electro-Mechanical Systems manufacturing including the basics of MEMS materials and devices, MEMS systems, clean room technology and topics in wafer processing.

MEMS 2092 – MEMS Manufacturing Technology Lab 2

Previously MEMS 226L (Prerequisite: SMT 2001 + SMT 2092; or department approval. Corequisite: MEMS 2015)

Provides lab course for MEMS 2015. Laboratory exercises conducted in a clean room. Students meet twice per week. (90 lab hours per term)

MLT – Medical Lab Technician Courses School of Health, Wellness & Public Safety

MLT 1007 – Clinical Success Seminar 1

Previously MLT 104 (Prerequisite: BIO 1310 (or 2210 + 2310) + 1392 (or 2292 + 2392) + 1410 + 1492 + 2110 + 2192; ENG 1101 or 1102; CHEM 1410/1492 or 1710/1792; CHEM 2210 (or 2710 + 2792); MATH 1330; department approval. Corequisite: MLT 1012 + 1014 + 1090 + 1092 + 1192 + 1290)

Includes analysis of student learning needs for self and others and training in clinical setting. It prepares students to read complex medical information and procedure manuals. The emphasis is on preparation for clinical rotations in a medical laboratory including KeyTrain Teamwork and Career Skills Tutorials, the student/employee role in lab inspections and the employer's perspective. **$ Additional fees published in the *Schedule of Classes*.**

MLT 1010 – Introduction to Medical Laboratory Sciences 1

Previously MLT 101

Introduces the student to basic concepts used in the medical laboratory including the divisions of the lab, lab personnel, safety, basic statistics, quality control, medical terminology and lab instrumentation.

MLT 1012 – Clinical Urinalysis 1

Previously MLT 102 (Corequisite: MLT 1007 + 1014 + 1090 + 1092 + 1192 + 1290)

Introduces principles and procedures of physical, chemical and microscopic analysis of urine.

MLT 1014 – Immunology 1

Previously MLT 114 (Corequisite: MLT 1007 + 1012 + 1090 + 1092 + 1192 + 1290)

Teaches the basics of the body's immune response and introduction to diseases involving deficiencies in the immune system.

MLT 1090 – Clinical Experience Urinalysis 1

(Corequisite: MLT 1007 + 1012 + 1014 + 1092 + 1192 + 1290)

Clinical experience performing basic urinalysis and special tests in an affiliated medical laboratory. (45 clinical hours per term).

MLT 1092 – Clinical Urinalysis Laboratory 1

(Corequisite: MLT 1007 + 1012 + 1014 + 1090 + 1192 + 1290)

Introduces basic medical laboratory techniques in urinalysis and special tests.

MLT 1096, 1196...1996 – Special Topics 1-6

(all courses ending in 96 are topics courses)

Previously MLT 296 (Prerequisite: may vary)

Presents various topics in laboratory medicine.

Course Subject Code/Course Number – Course Name Credit Hours

MLT 1192 – Clinical Immunology 1

Previously MLT 114C (Corequisite: MLT 1007 + 1012 + 1014 + 1090 + 1092 + 1290)

Provides experience in serological testing on specimens from hospital patients using current methodologies.

MLT 1290 – Clinical Experience Phlebotomy 3

Previously MLT 151C (Corequisite: MLT 1007 + 1012 + 1014 + 1090 + 1092 + 1192)

Introduces principles related to blood collection, experience in phlebotomy in a student lab and an affiliated medical laboratory. This is a credit/no credit course. (135 clinical hours per term)

MLT 1510 – Clinical Hematology 3

Previously MLT 209 (Prerequisite: MLT 1007 + 1012 + 1014 + 1090 + 1092 + 1192 + 1290. Corequisite: MLT 1511 + 1592 + 1692 + 1792)

Teaches normal and abnormal blood cell morphology and the principles of routine procedures in a hematology laboratory.

MLT 1511 – Clinical Immunohematology 2

Previously MLT 211 (Corequisite: MLT 1510 + 1592 + 1692 + 1792)

Examines the theory principles for determining blood group typing, antibody detection and identification, cross matching and component therapy.

MLT 1592 – Clinical Coagulation 1

Previously MLT 103L (Corequisite: MLT 1510 + 1511 + 1692 + 1792)

Presents basic coagulation concepts with practice performing the procedures. Also introduces advanced principles and procedures performed in the coagulation laboratory.

MLT 1692 – Clinical Hematology Laboratory 2

Previously MLT 209L (Corequisite: MLT 1510 + 1511 + 1592 + 1792)

Presents experiences for performing the basic procedures in a hematology laboratory including the identification and enumeration of blood cells.

MLT 1792 – Clinical Immunohematology Laboratory 2

Previously MLT 211L (Corequisite: MLT 1510 + 1511 + 1592 + 1692)

Provides experience in clinical blood bank. Includes KeyTrain Observation Tutorial.

MLT 2010 – MLT Microbiology 3

Previously MLT 206 (Prerequisite: MLT 1510 + 1511 + 1592 + 1692 + 1792. Corequisite: MLT 2011 + 2092 + 2590)

Presents clinical bacteriology, mycology and parasitology including macroscopic and microscopic identification of organisms, antibiotic susceptibility testing, life cycles and the pathology and etiology of various diseases. Virology is introduced.

MLT 2011 – Clinical Chemistry 3

Previously MLT 207 (Corequisite: MLT 2010 + 2092 + 2590)

Presents the principles and methods used in testing for chemical components in blood and other body fluids including basic instrumentation.

MLT 2092 – Clinical Chemistry Laboratory 1

Previously MLT 207L (Corequisite: MLT 2010 + 2011 + 2590)

Presents experiences for performing the basic procedures used in a clinical chemistry laboratory including basic chemistry instrumentation. Includes KeyTrain Locating Information Tutorial.

MLT 2096, 2196…2996 Special Topics 1-6

(all courses ending in 96 are topics courses)

Previously MLT 296 (Prerequisite: may vary)

Presents various topics in laboratory medicine.

MLT 2590 – Clinical MLT Microbiology 3

Previously MLT 206C (Corequisite: MLT 2010 + 2011 + 2092)

Identifies the microorganisms of clinical significance from specimens obtained from patients. Students utilize current methodologies and identification techniques. (135 lab hours per term)

MLT 2890 – Clinical Experience I 12

Previously MLT 205C (Prerequisite: MLT 1007 + 1012 + 1014 + 1090 + 1092 + 1192 + 1290 + 1510 + 1511 + 1592 + 1692 + 1792 + 2010 + 2011 + 2092 + 2590)

Provides clinical practice in affiliated clinical laboratories with rotations through hematology/coagulation, microbiology, chemistry and immunohematology divisions. This course has a Web-based component. This is a credit/no credit course. (15 weeks) (540 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

MSL – Military Science and Leadership Courses (Army ROTC) School of Communication, Humanities & Social Sciences

Students may register at CNM for the University of New Mexico (UNM) Army Military Science and Leadership program. Uniforms and textbooks are provided. Because these courses are offered at the main campus of UNM, students should contact UNM before enrolling. For more information, contact:

Army ROTC Military Science and Leadership (MSL) Erik Sevigny, Lt. Col., U.S. Army University of New Mexico School of Military Science 1836 Lomas Blvd. NE, Albuquerque, NM 87131-0001 (505) 277-2250

Credits in Military Science and Leadership are currently NOT eligible to be applied to any associate degree or certificate at CNM.

MSL 1092 – Foundations of Officership Lab 1

Previously MSL 101L (Corequisite: MSL 1101)

Training on basic soldier skills and tasks, such as land navigation, basic rifle marksmanship and movement as a member of a fire team and rifle squad. Practical application of field craft and soldier skills in a tactical environment.

MSL 1101 – Foundations of Officership 1

Previously MSL 101

Introduction to competencies central to the responsibilities of a commissioned officer. Establishes a framework for understanding officership, leadership and Army values in addition to life skills such as personal fitness, time management and stress management.

MSL 1102 – Basic Leadership 1

Previously MSL 102

This course expands on the fundamentals introduced in MSL 1101 focusing on communication, leadership and goal setting. Course builds on the previous course exposing students to different methodologies of critical thinking and problem solving.

MSL 1292 – Basic Leadership Lab 1

Previously 102L (Corequisite: MSL 1102)

Continuation of MSL 1092

MSL 2092 – Individual Leadership Studies Lab 1

Previously MSL 201L (Corequisite: MSL 1101)

Builds on the topics covered in MSL 1092 and 1292. Further in depth training on basic soldier skills and tasks, such as land navigation, basic rifle marksmanship and movement as a member of a fire team and rifle squad. Practical application of field craft and soldier skills n a tactical environment.

MSL 2192 – Individual Leadership Studies Lab 1

Previously MSL 202L (Corequisite: MSL 2202)

Continuation of MSL 2092.

Course Subject Code/Course Number – Course Name Credit Hours

MSL 2201 – Individual Leadership Studies 2

Previously MSL 201

Explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of the Army leadership framework (trait and behavior theories). Students practice aspects of personal motivation and team building in the context of planning, executing and assessing team exercises and participating in leadership labs. Focus in on continued development of the knowledge of leadership values and attributes through an understanding of Army rank, structure and duties and basic aspects of land navigation and squad tactics. Case studies provide tangible context for learning the Soldier's Creed and Warrior Ethos as they apply in the contemporary operating environment (COE).

MSL 2202 – Leadership and Teamwork 2

Previously MSL 202

Examines the challenges of leading tactical teams in the complex contemporary operating environment (COE). The course highlights dimensions of terrain analysis, patrolling and operation orders. Further study of the theoretical basis of the Army leadership framework explores the dynamics of adaptive leadership in the context of military operations. The course provides a smooth transition into MSL 301. Cadets develop great self-awareness as they assess their own leadership styles and practice communication and team building skills. COE case studies give insight into the importance and practice of teamwork and tactics in real-world scenarios.

MSL 2219 – Directed Studies 1-3

Explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of the Army leadership framework (trait and behavior theories). MSL 2219 further provides a smooth transition into MSL 301. Cadets develop greater self-awareness as they assess their own leadership styles and practice communication and team building skills.

MSL 2220 – Military Fitness I 1-2

Previously MSL 229 (Corequisite: MSL 1101 or MSL 2201)

Course is designed to teach students the principles of fitness, proper nutrition and a healthy lifestyle while exposing them to different methodologies of personal fitness.

MSL 2221 – Military Fitness II 1-2

Previously MSL 230 (Corequisite: MSL 1102 or MSL 2202)

Continuation of MSL 2220.

MT – Manufacturing Technology Courses School of Applied Technologies

MT 1001 – Manufacturing Concepts 4

Previously MT 105 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12)

Develops teamwork skills and presents a variety of manufacturing concepts such as creative problem solving, project management, effective meetings, effective communication and theory of constraints. (45 theory + 45 lab hours per term)

MT 1096, 1196…1996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

MT 2001 – Applied Science 6

Previously MT 205 (Prerequisite: ELEC 1010)

Presents basic principles of chemistry and physics as they apply to high tech industries. Explores the application of topics such as work and energy, temperature and heat, chemical bonds and organic chemistry. (60 theory + 90 lab hours per term)

MT 2005 – Statistical Controls **3**

Previously MT 281 (Prerequisite: MATH 0940 or appropriate placement scores, see page 12)

Features the use of hardware and software as they apply to quality assurance. Study design of experiments, sampling techniques, SPC, control chart application and development and process reliability. (30 theory + 45 lab hours per term)

MT 2010 – Materials Science I **3**

Previously MT 290 (Prerequisite: CHEM 1510/1592)

Presents an introduction to the science of materials. Topics include atomic bonding, crystal structure, crystal defects deformation and fracture. (30 theory + 45 lab hours per term)

MT 2015 – Materials Science II **3**

Previously MT 291 (Prerequisite: MT 2010)

Continues the study of the science of materials. Topics include phase equilibrium, phase transformations and microstructures. Properties of metals, ceramics, glass, plastics and composites will be examined. (30 theory + 45 lab hours per term)

MT 2095 – Cooperative Education **3**

Previously MT 299 (Prerequisite: department approval or associate dean)

Provides an opportunity for the student to work for one term on a cooperative basis in an appropriate training program. Position is not paid.

MT 2096, 2196...2996 – Special Topics **2-6**

(all courses ending in 96 are topics courses)

Previously MT 296 (Prerequisite: advanced manufacturing student)

The topics depend on the requests of the community.

MT 2097 – Independent Study **2-6**

Previously MT 297 (Prerequisite: advanced manufacturing student)

Allows the student to investigate and solve a problem. The student designs the solution using a combination of manufacturing techniques.

MT 2098 – Internship **3**

Previously MT 298 (Prerequisite: department approval or associate dean)

Provides an opportunity for the student to work for one term on a cooperative basis in an appropriate training program. Position is not paid.

MUS – Music Courses School of Communication, Humanities & Social Sciences

MUS 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

MUS 1103 – Fundamentals of Music **4**

Previously MUS 103 (Recommended: Experience with voice or instrument)

Introduces fundamentals of music: notation, scales, key signatures and intervals, with application to aural comprehension through singing intervals, scales, triads, dictating simple rhythmic and melodic patterns.

MUS 1139 – Early Music Appreciation **3**

Previously MUS 139

Surveys basic musical elements and their development from early Greece to the Classical period in a non-technical approach. Requires attendance at live musical performances.

MUS 1140 – Modern Music Appreciation **3**

Previously MUS 140

Emphasizes study of symphonic music, chamber music and vocal literature from the Romantic period to the 21st century in a non-technical approach. Requires attendance at live musical performances.

Course Subject Code/Course Number – Course Name Credit Hours

MUS 1172 – Introduction to Jazz **3**

Previously MUS 172

Introduces jazz as a modern musical form and emphasizes its evolution during the 20th century.

MUS 2096, 2196...2996 – Special Topics **1-6**

(all courses ending in 96 are topics courses)

Previously MUS 296

Presents various topics. See *Schedule of Classes*.

NA – Nursing Assistant Courses School of Health, Wellness & Public Safety

NA 1014 – Foundations of Nursing Assistant (CR/NC) **9**

Previously NA 1010 (Prerequisite: RDG 0750 + ENG 0750 + Math 0750; or appropriate placement scores. Corequisite: NA 1094)

Provides nursing assistant theory for the care of clients in health care agencies. Course covers such topics as basic structure and normal functions of body systems and impact of aging. Nutrition, medical terminology, effective ways of communicating, geriatric issues, home cares issues, medical technology, professionalism, work place communication and application of basic math to the clinical setting. **$ Additional fees published in the *Schedule of Classes*.**

NA 1094 – Nursing Assistant Lab/Clinical Experience **6**

(Corequisite: NA 1014)

This course provides instruction and supervised practice in the campus laboratory in basic patient care skills which include vital signs, personal hygiene, transfer techniques, nutritional support and other methods to support activities of daily living. Students will apply nursing assistant theory to hands-on skills, nutrition labs, math for nursing assistants, etc. Laboratory experiences will be followed by supervised practice of basic patient care skills in the hospital, long-term care centers and home health care throughout the city. (270 hours lab/clinical) **$ Additional fees published in the *Schedule of Classes*.**

NA 1096, 1196…1996 – Special Topics **1-6**

(All courses ending in 96 are topics courses)

Presents various topics. See *Schedule of Classes*

NAHA – Nursing Home/Home Health Attendant Courses School of Health, Wellness & Public Safety

NAHA 1014 – Nursing Home/Home Health Attendant **6**

Students learn basic anatomy and physiology, communication and clinical math skills. Laboratory experiences include practice of basic patient care skills necessary to work in a nursing home or private home. Personal care, restorative care skills, vital signs and lifting are some of the skills taught in a lab setting. This course also provides the opportunity to practice supervised basic patient care skills in a long-term care setting. (60 theory+ 45 lab hours+ 45 clinical hours) **$ Additional fees published in the *Schedule of Classes*.**

NAHA 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

NAVS – Naval Science Studies Courses School of Communication, Humanities & Social Sciences

Students may register at CNM for the University of New Mexico Naval Science program. Uniforms and textbooks are provided. Because these courses are offered at the main campus of UNM, students should contact UNM before enrolling. For more information, contact: Naval Science, The University of New Mexico Naval ROTC, Naval Science Bldg. 151 720 Yale Blvd. NE, Albuquerque, NM 87131 (505) 277-3744 Credits in Naval Sciences Studies are currently NOT eligible to be applied to any associate degree or certificate at CNM.

NAVS 1101 – Principles and Concepts of Naval Science **3**
Previously NAVS 101

Introduces the naval service, customs, traditions, courtesies and naval officers' communities. Fall only.

NAVS 1105 – Naval Ship Systems I **3**
Previously NAVS 105

Introduces naval engineering systems concepts and practices. Spring only.

NAVS 1192 – Naval Professional Laboratory
Previously NAVS 010

Offers drills and information for NROTC students. (30 hours each term) Fall, spring only

NAVS 2201 – Naval Ship Systems II **3**
Previously NAVS 201

Explores the principles of naval weapons systems. Fall only.

NAVS 2202 – Sea Power **3**
Previously NAVS 202

Surveys US naval history from the American Revolution to the present. Fall only.

NAVS 2203 – Navigation **3**
Previously NAVS 203

Offers theory, principles and procedures of ship coastal and celestial navigation. Spring only.

NAVS 2204 – Naval Operations **3**
Previously NAVS 204

Explores naval ship operations, tactical formations and dispositions; relative motion tactical plots and maneuvering boards are analyzed. Spring only.

NAVS 2231 – Evolution of Warfare **3**
Previously NAVS 231

Surveys evolution of the basic principles and techniques of warfare throughout history. Fall only, even years.

NAVS 2241 – Leadership and Management **3**
Previously NAVS 241

Explores the structure and principles of naval leadership and management. Fall only.

NAVS 2247 – Principles of Naval Leadership **3**
Previously NAVS 247

Examines the structure and principles of naval leadership and management. Spring only.

NAVS 2251 – Amphibious Warfare **3**
Previously NAVS 251

Explores the concepts, techniques and history of amphibious warfare. Fall only, odd years.

NS – Natural Science Courses School of Math, Science & Engineering

NS 1010 – Physical Science for Teachers **4**
Previously NS 261 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12)

Introduces the science of geology, chemistry, physics and astronomy, with emphasis on the sciences processes, inquiry and the integration of technology. This course is activity based utilizing problems and issues based approach; various teaching methods are modeled and practiced by students. Some field trips may be required.

NS 1015 – Life Science for Teachers **4**
Previously NS 262 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12)

Uses activities for the study of science topics including botany, cell biology, genetics, micro-biology 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.

NS 1096, 1196…1996 – Special Topics **1-6**
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

NS 2010 – Environmental Science for Teachers **4**
Previously NS 263 (Prerequisite: ENG 1101 or appropriate placement scores, see page 12; NS 1010 + NS 1015)

Introduces 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.

NURS – Nursing Courses School of Health, Wellness & Public Safety

NURS 1002 – Strategies for Nursing Effectiveness **2**
Previously NURS 112

This survey course promotes success in the nursing student by utilizing the nursing process to improve skills associated with critical thinking, critical reading and problem solving through evidenced based nursing practice.

NURS 1007 – Dosage Calculations (CR/NC) **1**
Previously NURS 115 (Prerequisite: department approval)

Presents methods of dosage calculations for oral and parental medications, including intravenous therapy and pediatric dosages.

NURS 1080 – Introduction to Nursing **9**
Previously NURS 120C (Prerequisite: department approval + BIO 2210 + BIO 2292 + ENG 1101 + NUTR 2110 + PSY 1105. Pre- or corequisite: NURS 1007 + BIO 2310 + BIO 2392 + PSY 2220)

Introduces the foundations of nursing with a focus on physical assessment and its function within the nursing process. Introduces common pathological conditions to begin the application of patient data into a caring framework. Clinical: Assessment and implementation of care for healthy and hospitalized clients to maintain and promote mental and physical health. (75 theory + 180 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

NURS 1092 – Supplemental Lab (CR/NC) **1**
Previously NURS 107L (Prerequisite: department approval)

Designed to provide nursing students the opportunity for additional practice of nursing skills in the campus laboratory before going into the clinical setting. PN Required Corequisite: NURS 1080; ASN Recommended Corequisite: NURS 1580.

NURS 1096, 1196...1996 – Special Topics 1-10
(all courses ending in 96 are topics courses)

Previously NURS 296 (Prerequisite: may vary)

Presents various topics in nursing.

NURS 1580 – Nursing Care of the Adult Client 9

Previously NURS 160C (Prerequisite: BIO 2310 + BIO 2392 + NURS 1007 + NURS 1080 + PSY 2220. Pre- or corequisite: PHIL 2247 + NURS 2002)

Continues the care of clients with pathophysiological conditions using the nursing process. Emphasis on the development of communication techniques, critical thinking and clinical competence. Clinical: Experiences with medical, surgical and psychosocial and behavioral needs of clients in hospital settings. (75 theory + 180 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

NURS 1592 – Supplemental Lab (CR/NC) 1

Previously NURS 109L (Prerequisite: department approval)

Designed to provide nursing students the opportunity for additional practice of nursing skills in the campus laboratory before going into the clinical setting. PN Required Corequisite: NURS 1080; ASN Recommended Corequisite: NURS 1580.

NURS 2002 – Pharmacology in Nursing 3

Previously NURS 231 (Prerequisite: department approval + BIO 2310 BIO 2392)

Introduces the concepts necessary for nursing judgment in the use of chemical agents and the theoretical base required to administer medications. Information covers drugs in current use, including pharmacokinetics, pharmacodynamics, therapeutic uses, adverse reactions, precautions and contraindications.

NURS 2074 – Concepts for Transitioning Students 2

Previously NURS 2070 (Pre- or corequisite: ENG 1101 + NUTR 2110 + BIO 2310 + 2392 + PHIL 2247 + PSY 1105 + 2110 + 2192 + 2220 + NURS 1007 + NURS 2002)

Introduces the conceptual framework of the nursing program and study of the nursing process. In-depth focus on assessment across the life span. Required for all applicants who seek advanced placement in the practical nurse or associate degree program. Pre- or corequisites: Arts and Sciences Elective or IT 1010.

NURS 2080 Family Nursing Across the Lifespan 7

Previously NURS 185C (Prerequisite: NURS 1580 + 1592 + 2002)

Prepares the practical nursing student to participate in the coordination of care for a specific group of clients, including pediatric, maternity and medical-surgical clients in appropriate care settings. (60 theory + 135 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

NURS 2096, 2196...2996 – Special Topics 1-10
(all courses ending in 96 are topics courses)

Previously NURS 296 (Prerequisite: may vary)

Presents various topics in nursing.

NURS 2515 – Manager of Care 1

Previously NURS 227 (Prerequisite: NURS 2580. Corequisite: NURS 2680)

Introduces management principles to prepare the ADN nurse to manage care of groups of clients. Clinical application in NURS 2680.

Course Subject Code/Course Number – Course Name Credit Hours

NURS 2580 – Family Nursing 10

Previously NURS 220C (Prerequisite: NURS 1580 + PSY 2220 + NURS 2002 + PHIL 2247. Pre- or corequisite: BIO 2110 + BIO 2192)

Integrates the study of clients with complex pathological conditions. Introduces nursing care of the mother and neonate. Clinical: Experiences with medical, surgical, maternal, neonate and behavioral health clients in hospital and/or community-based health care settings. (75 theory + 225 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

NURS 2680 – Complex Health Problems 9

Previously NURS 260C (Prerequisite: NURS 2580. Corequisite: NURS 2515)

Studies the impact of complex, multi-system health problems on individuals and families, including the pediatric client. Includes psychiatric disorders, cultural factors and practice issues. Clinical: Providing and managing care of clients across the lifespan. Pre- or corequisite: Arts and Science Elective or IT 1010. (60 theory + 225 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

NUTR – Nutrition Courses School of Math, Science & Engineering

NUTR 1010 – Personal and Practical Nutrition 3

Previously NUTR 120 (Pre- or corequisite: ENG 0950 or appropriate placement scores, see page 12)

Presents nutrition concepts from a practical viewpoint that can be applied to personal goals. Includes current and controversial topics: individual nutrient needs, alternative eating patterns, nutrition as part of disease prevention and applications of these principles in food preparation. Fulfills nutrition requirement for culinary arts but is not the required course for nursing or other health science majors.

NUTR 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

NUTR 2096-2996 – Special Topics 1-3
(All courses ending in 96 are topics courses)

Presents various topics. See *Schedule of Classes*

NUTR 2110 – Human Nutrition 3

Previously NUTR 244 (Prerequisite: BIO 1410/1492 or CHEM 1410/1492 or CHEM 1710/1792 or a passing score of 64 on the Biology Placement Exam)

Introduces nutrition as it affects normal body function and total health. Designed for health majors who will use this information in various professions.

OLIT – Online Instructor Course Organizational Learning

OLIT 1010 – Online Instructor Certification 3

Previously OLIT 101 (Prerequisite: must be a faculty member or have department approval)

Prepares faculty to teach online. After completion of this course, faculty will be able to implement a basic WebCT course using available technologies.

OTEC – Office Technology Courses School of Business & Information Technology

OTEC 1096, 1196...1996 – Special Topics 1–3
(all courses ending in 96 are topics courses)

Previously OTEC 296

Explores current topics in office technology.

OTEC 1101 – Beginning Keyboarding 2
Previously OTEC 101

Develops keyboarding skill by touch method and develops speed and accuracy. A minimum average of 25 wpm on three five-minute timings is required. (15 theory + 60 lab hours per term)

OTEC 1112 – Office Accounting Procedures 3
Previously OTEC 112 (Recommended prerequisite: ACCT 1109)

Focuses on complete bookkeeping cycle, financial statements and payroll. A practice set is completed in this course.

OTEC 1143 – Word Processing 3
Previously OTEC 143 (Recommended prerequisite: IT 1010 + OTEC 1192; department approval)

Presents basic and intermediate functions in MS Word for preparing business documents. (30 theory + 45 lab hours per term)

OTEC 1161 – Records and Information Management 2
Previously OTEC 160 (Recommended pre-or corequisite: IT 1010)

Presents an introduction to the field of records management. Covers principles and practices of effective records management for manual and electronic records systems. Alphabetic filing rules compatible with Association of Records Managers and Administrators (ARMA) guidelines are introduced, along with methods of storing and retrieving alphabetic, subject, numeric and geographic records. This course was previously called OTEC 1160 Records Management. (30 theory hours per term)

OTEC 1170 – Business Telephone Techniques 1
Previously OTEC 170

Presents concepts to develop effective speaking, listening and questioning skills. Methods for handling incoming calls, outbound calls, customer orders, customer problems and customer complaints. (15 theory hours per term)

OTEC 1171 – Working with the Challenging Customer 1
Previously OTEC 171

Presents concepts to enhance student's ability to act effectively when working with the challenging customer for the purpose of promoting customer satisfaction. (15 theory hours per term)

OTEC 1173 – Time Management Skills 1
Previously OTEC 173

Presents principles and activities to aid the student in applying time management skills in a personal and professional environment. (15 theory hours per term)

OTEC 1175 – Computers in the Medical Office 2
Previously OTEC 174 (Recommended pre- or corequisite: IT 1010)

Introduces tasks performed in a medical office utilizing a computerized software package, including scheduling appointments, gathering and recording patient information, recording diagnoses and procedures, billing patients, filing insurance claims, recording payments and preparing reports. This course was previously called OTEC 1174 Computers in the Medical Office. (20 theory + 30 lab hours per term)

OTEC 1192 – Keyboard Skillbuilding 2
Previously OTEC 102 (Prerequisite: OTEC 1101)

Continues development of speed and accuracy. A minimum average speed of 30 wpm on three five-minute timings is required. (75 lab hours per term)

OTEC 1193 – Intermediate Keyboard Skillbuilding 2
Previously OTEC 107 (Prerequisite: OTEC 1192)

Focuses on building speed and accuracy. A minimum average speed of 40 wpm on three five-minute timings is required. (75 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

OTEC 2093 – Advanced Keyboard Skillbuilding 2
Previously OTEC 205 (Prerequisite: OTEC 1193)

Focuses on building speed and accuracy. A minimum average speed of 50 wpm on three five-minute timings is required. (75 lab hours per term)

OTEC 2095 – Cooperative Education 4
Previously OTEC 299 (Prerequisite: department approval. Recommended prerequisite: OTEC 1143 + BA 1121)

Requires a minimum of 150 hours in a new office-related position. If the student is currently employed in area of study, the 150 hours must involve a new learning experience. Student trainees are paid by the cooperating firm and supervised jointly by CNM and the employer. The student and employer determine the weekly contact hours.

OTEC 2096, 2196...2996 – Special Topics 1-3
(all courses ending in 96 are topics courses)
Previously OTEC 296

Explores current topics in office technology.

OTEC 2097 – Independent Study 3
Previously OTEC 297 (Prerequisite: department approval)

Requires the student and instructor to define a specific problem in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to the problem. An oral presentation may be required.

OTEC 2098 – Internship 4
Previously OTEC 298 (Prerequisite: department approval. Recommended prerequisite: OTEC 1143 + BA 1121)

Requires a minimum of 150 hours at office-related supervised workstations. If the student is currently employed in area of study, the 150 hours must involve a new learning experience. Students are not paid for their work but are supervised jointly by CNM and the employer. The student and employer determine the weekly contact hours.

OTEC 2200 – Advanced Word Processing 3
Previously OTEC 200 (Prerequisite: OTEC 1143. Recommended prerequisite: OTEC 1193)

Presents advanced applications for preparing business documents and document integration. (30 theory + 45 lab hours per term)

OTEC 2231 – Business English Applications 3
Previously OTEC 231 (Prerequisite: BA 1122 or department approval)

Requires student to compose and analyze/edit business documents for correct grammar, punctuation, mechanics and language. Reference materials are used. (45 theory hours per term)

OTEC 2260 – Business Procedures 3
Previously OTEC 260 (Prerequisite: OTEC 1143 + BA 1121. Recommended prerequisite: OTEC 1193 + BA 1122)

Covers office procedures, technology, records management, human relations, ethics, telecommunications and job portfolio. (45 theory hours per term)

OTEC 2270 – Medical Transcription 3
Previously OTEC 270 (Recommended prerequisite: HIT 1020 + OTEC 1143 + OTEC 1193 + BA 1121)

Reinforces medical terminology and develops proficiency in transcribing medical reports, forms and other types of medical communications using correct format, grammar, punctuation, number, abbreviation, symbols and metric measurement rules. (30 theory + 45 lab hours per term)

PC – Process Control Courses School of Applied Technologies

PC 2001 – Electromechanical System Troubleshooting 4
Previously PC 201 (Prerequisite: ELEC 2001 or 2005)

Uses electromechanical systems donated by local industries. Initially focuses on systematic analysis to locate problems. Apply troubleshooting techniques to a complete electronic system. Expose students to equipment schematics, maintenance procedures and practice preventive and corrective maintenance troubleshooting. (30 theory + 90 lab hours per term)

PC 2005 – CIM Theory and Applications and Mobile Robot Design 3
Previously PC 206 (Prerequisite: ELEC 1005 + ELEC 1020)

Includes theory of computer integrated manufacturing (CIM), CIM systems used in industry and the programming and operation of such systems and micro-controllers. (30 theory + 45 lab hours per term)

PC 2010 – Robot Theory and Construction Applications 3
Previously PC 208 (Prerequisite: ELEC 1005 + ELEC 1020)

Includes theory, operation and maintenance procedures of industrial robots along with DC motors and motor drive circuitry and communications technology. Class will also complete a project (utilizing an industrial robot system) designed and constructed by students. (30 theory + 45 lab hours per term)

PC 2015 – Power RF 2
Previously PC 211 (Prerequisite: ELEC 2001)

Presents RF energy and its applications in manufacturing industries. Includes plasma physics, RF applications, safety, RF generators, transmission lines and RF interference. (15 theory + 45 lab hours per term)

PC 2020 – Vacuum Systems 2
Previously PC 212L (Prerequisite: ELEC 2005)

Introduces vacuum technology and vacuum systems. Includes gas laws and properties, operation and applications of vacuum pumps, gauges and valves and systems leak detection. (15 theory + 45 lab hours per term)

PC 2096, 2196…2996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

PHIL – Philosophy Courses School of Communication, Humanities & Social Sciences

PHIL 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

PHIL 1102 – Ethics in Society 3
Previously PHIL 102 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Examines important ethical theories and contemporary moral issues such as war and violence, the death penalty, euthanasia, privacy, animal rights and world hunger. Assists students in critically examining their own views and those of others, past and present, on these issues.

PHIL 1110 – Introduction to Philosophical Thought 3
Previously PHIL 110 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: ENG 1101)

Surveys the philosophical issues addressed by great thinkers of the western tradition. Introduces questions about knowledge, reality, goodness, the idea of God, government and society, and the self.

Course Subject Code/Course Number – Course Name Credit Hours

PHIL 1156 – Logic and Critical Thinking 3
Previously PHIL 156 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Introduces the tools of reason helpful in everyday decision making, skills for argument analysis and effective communication of ideas. Surveys informal fallacies and formal deductive systems.

PHIL 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)

Previously PHIL 241 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents various topics. See *Schedule of Classes*.

PHIL 2245 – Business Ethics 3
Previously PHIL 245B (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Provides a forum for discussion of the ethical and social problems affecting the business community. Examines differing views of economic justice.

PHIL 2246 – Environmental Ethics 3
Previously PHIL 245E (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Provides a forum for discussion of the ethical and social problems concerning the relationship between human activity (farming, industry, etc.) and the Earth's environment.

PHIL 2247 – Biomedical Ethics 3
Previously PHIL 245M(Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Provides a forum for discussion of the ethical and social problems affecting the medical profession and the practice of medicine.

PHIL 2248 – Ethics of Technology 3
Previously PHIL 245T(Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Provides a forum for discussion of the ethical and social problems arising from the uses of computers and technology.

PHIL 2250 – Philosophy of Education 3
Previously PHIL 250 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents critical examination of classical and contemporary educational theories and philosophical movements in education. Emphasizes the relationship of philosophical theory and educational practice.

PHIL 2257 – Formal Logic 3
Previously PHIL 257 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Introduces formal deductive logic: propositional logic, truth tables, argument forms and fallacies, predicate (symbolic) logic and method of proof.

PHLB – Phlebotomy Courses School of Health, Wellness & Public Safety

PHLB 1010 – Phlebotomy Theory 4
Previously PHLB 110 (Prerequisite: ENG 0950 + MATH 0930 + RDG 0950; or appropriate placement scores, see page 12; HLTH 1001. Corequisite: PHLB 1090 + PHLB 1092)

Includes basic concepts in venipuncture and skin puncture procedures along with an overview of anatomy and physiology, medical terminology, quality assurance and medico-legal issues.

PHLB 1090 – Clinical Phlebotomy 3
Previously PHLB 122C (Corequisite: PHLB 1010 + PHLB 1092)

Provides opportunity for students to practice phlebotomy procedures on actual patients in area hospitals and clinics. (6 weeks; 135 clinical hours per term)

PHLB 1092 – Phlebotomy Lab 2
Previously PHLB 110L (Corequisite: PHLB 1010 + PHLB 1090)

Provides opportunity to practice phlebotomy skills and apply theory using artificial arms and human subjects. (6 weeks; 90 lab hours per term) **$**
Additional fees published in the *Schedule of Classes*.

PHLB 1096, 1196...1996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
Previously PHLB 296
Explore various topics of interest in the field of Phlebotomy.

PHOT – Photonics Courses School of Applied Technologies

PHOT 1001 – Introduction to Photonics and Photonics Safety 4
Previously PHOT 101L (Prerequisite: MATH 0940 or appropriate placement scores, see page 12)

Introduces fiber optics and light theory including the basics of laser safety and operation. This course presents the elements of fiber optics including: theory and operation of fiber optics, handling of fiber optics, integrated optics, wave-guide transmission and fiber optic components. Light propagation topics are introduced. Safety procedures concerning lasers and related equipment are presented in this course. (45 theory + 45 lab hours per term)

PHOT 1010 – Fiber Optics 3
Previously PHOT 111L (Prerequisite: PHOT 1001)

Presents optical wave-guides and fibers as well as Fiber Optics Telecommunication. The course covers basic fiber optics components and active devices such detectors for fiber optic systems, isolators, attenuators, circulators, couplers, cables, connectors, switches, pump lasers, transmission systems and repeaters. (30 theory + 45 lab hours per term)

PHOT 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)
Presents various topics. See *Schedule of Classes*.

PHOT 2001 – Optics 6
Previously PHOT 201L (Prerequisite: PHOT 1001)

Presents basic geometrical (ray) and physical (wave) optics. The course covers the basics of the light reflection and refraction and the use of simple optical elements. It reviews light wave interference, diffraction and polarization; the use of thin film coatings on mirrors; laser beam divergence in the near and far field; and the operation of such devices as gratings and quarter-wave plates. It also covers wave length, dispersion and refractive index measurements and the concept of modulation transfer function. (60 theory + 90 lab hours per term)

PHOT 2005 – Introduction to Laser Systems 4
Previously PHOT 207L (Prerequisite: ELEC 1005. Pre- or corequisite PHOT 2001)

Introduces the theory and operation of solid-state and gas lasers and presents continuous wave and pulsed systems. The course covers laser power and energy measurements, power supplies, cooling systems and safe operation of class 4 lasers. Hands on operation and alignment are emphasized. (15 theory + 135 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

PHOT 2010 – Advanced Fiber Optics 3
Previously PHOT 211L (Prerequisite: PHOT 1010. Pre- or corequisite: ELEC 2001)

Introduces metrology of Fiber Optic systems. It also covers source of loss in fiber optics networks and components: insertion loss, return loss and polarization dependent loss. Current fiber optics systems are explored. (30 theory + 45 lab hours per term)

PHOT 2020 – Advanced Laser Systems With Applications 6
Previously PHOT 217L (Prerequisite: PHOT 2005)

Covers the applications of laser Systems to industry. Include laboratory experiences such as calibration techniques, interferometry, Q-switching. The course requires the student to write a technical paper. (60 theory + 90 lab hours per term)

PHOT 2025 – Photonics Projects 4
Previously PHOT 225 (Prerequisite: PHOT 2020 + PHOT 2010)

Introduces the student to creative photonics design by participation in small project groups. Each group will select a photonics problem to solve by using innovative optical circuitry and possibly the construction of a working model. (15 theory + 135 lab hours per term)

PHOT 2030 – Introduction to Biophotonics 3
Previously PHOT 227L (Prerequisite: MATH 0940 or appropriate placement scores, see page 12)

Presents DNA, cell proteins, cell structures, health physics, basics of light, electromagnetic spectrum, laser safety, geometric optics, wave optics, sensor fundamentals and light tissue interaction, including reflection, refraction, absorption and scattering. (30 theory + 45 lab hours per term)

PHOT 2035 – Biophotonics Applications 3
Previously PHOT 228L (Prerequisite: PHOT 2030)

Focuses on present-day biophotonics applications. (30 theory + 45 hours per term)

PHOT 2095 – Cooperative Education 3
Previously PHOT 299 (Prerequisite: department approval)

Provides the opportunity for the student to work on a cooperative basis in an appropriate training program. Position is paid.

PHOT 2096, 2196...2996 – Special Topics 1–6
(all courses ending in 96 are topics courses)
Previously PHOT 296 (Prerequisite: advanced Photonics Technology student)
The topics depend on the requests from the community.

PHOT 2097 – Independent Study 1–6
Previously PHOT 297 (Prerequisite: advanced Photonics Technology student)
Presents a problem to investigate and solve. The student designs the solution using a combination of techniques.

PHOT 2098 – Internship 3
Previously PHOT 298 (Prerequisite: department approval)

Provides the opportunity for the student to work for one term on a cooperative basis in an appropriate training program. The position is not paid.

PHYS – Physics Courses School of Math, Science & Engineering

PHYS 1010 – Introduction to Physics 3
Previously PHYS 102 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: MATH 0940)

Surveys basic concepts and phenomena of physics.

PHYS 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)
Presents various topics. See *Schedule of Classes*.

PHYS 1510 – Physics I **4**

Previously PHYS 151 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12; MATH 1315 or 1415 or 1460. Recommended prerequisite: working knowledge of trigonometry. Corequisite: PHYS 1592)

Introduces mechanics, sound and heat in non-calculus-based format. Satisfies pre-medical, pre-dental, pre-optometry and certain Technologies requirements.

PHYS 1592 – Physics I Laboratory **1**

Previously PHYS 151L (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Corequisite: PHYS 1510)

Emphasizes real-time experiments in mechanics, heat and sound. Introduces computer data collection and analysis. (Previously offered as PHYS 153L) (45 lab hours per term)

PHYS 1610 – Physics II **4**

Previously PHYS 152 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12; PHYS 1510. Corequisite: PHYS 1692)

Focuses on electricity, magnetism and optics in non-calculus-based setting.

PHYS 1692 – Physics II Laboratory **1**

Previously PHYS 152L (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Corequisite: PHYS 1610)

Focuses on experiments in electricity, magnetism and optics. Includes some computer simulations and data collection. (Previously offered as PHYS 154L.) (45 lab hours per term)

PHYS 1710 – General Physics I **4**

Previously PHYS 160 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Pre- or corequisite: MATH 1710. Corequisite: PHYS 1792)

Introduces calculus-based study of mechanics and sound waves for science and engineering students.

PHYS 1792 – General Physics Lab I **1**

Previously PHYS 160L (Corequisite: PHYS 1710)

Focuses on real-time experiments in mechanics and waves. Includes computer and data collection and analysis. (45 lab hours per term)

PHYS 1810 – General Physics II **4**

Previously PHYS 161 (Prerequisite: PHYS 1710. Pre- or corequisite: MATH 1715. Corequisite: PHYS 1892)

Emphasizes heat, electricity and magnetism for science and engineering students in calculus-based setting.

PHYS 1892 – General Physics Laboratory II **1**

Previously PHYS 161L (Corequisite: PHYS 1810)

Focuses on experiments in electricity, magnetism, optics. (45 lab hours per term)

PHYS 2096, 2196…2996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

PHYS 2710 – General Physics III **4**

Previously PHYS 262 (Prerequisite: PHYS 1810. Pre- or corequisite: MATH 2710)

Emphasizes optics and topics in modern physics for science and engineering students in calculus-based setting.

PL – Paralegal Studies Courses School of Health, Wellness & Public Safety

PL 1096, 1196...1996 – Special Topics **1-6**

(all courses ending in 96 are topics courses)

Previously PL 296 (Prerequisite: department approval)

Explores current topics in the law.

PL 1110 – Introduction to Paralegal Studies **3**

Previously PL 101 (Prerequisite: ENG 0950 + RDG 0950; or appropriate placement scores, see page 12)

Introduces concepts such as the definition and role of the paralegal, ethical responsibilities, professionalism, the legal system, legal research and analysis, legal and office procedures, technology in the law and topics in substantive law.

PL 1120 – American Law and Ethics **3**

Previously PL 111 (Prerequisite: ENG 0950 + RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: IT 1010)

Covers concepts such as the origins, nature, history and structure of the American legal system and rules of professional conduct for lawyers and paralegals.

PL 1130 – Torts **3**

Previously PL 123 (Prerequisite: PL 1110 + PL 1120)

Covers concepts in tort law, concentrating on negligence, products liability, non-physical injuries and their remedies and defenses and an introduction to causes of action.

PL 1140 – Legal Research and Writing I **3**

Previously PL 124 (Prerequisite: CIS 1120 + ENG 1101 + PL 1110 + PL 1120)

Covers concepts such as the principles and skills of writing case briefs and legal memoranda, with a focus on basic legal research sources and techniques, including Westlaw and other computer-assisted legal research. Significant time is spent at the UNM law library.

PL 2095 – Cooperative Education **4**

Previously PL 299 (Prerequisite: department approval)

Provides the opportunity to perform a minimum of 150 hours of paralegal assignments in a legal environment. The student is paid by the cooperating firm and is jointly supervised by CNM and the supervising attorney. The student will be required to meet additional course requirements as provided by the instructor.

PL 2096, 2196...2996 – Special Topics **1-6**

(all courses ending in 96 are topics courses)

Previously PL 296 (Prerequisite: department approval)

Explores current topics in the law.

PL 2097 – Independent Study **1-6**

Previously PL 297 (Prerequisite: department approval)

Explores a specific problem defined by student and instructor in the area of the student's interest and directly related to the program. Student develops and executes a solution using analytical techniques to the problem. A legal research paper or project is completed. An oral presentation may be required.

PL 2098 – Internship **4**

Previously PL 298 (Prerequisite: department approval)

Provides the opportunity to perform a minimum of 150 hours of paralegal assignments in a legal environment. The student is jointly supervised by CNM and the supervising attorney and the student will be required to meet additional course requirements as provided by the instructor.

PL 2120 – Civil Litigation **3**

Previously PL 203 (Prerequisite: CIS 1120 + ENG 1102 + PL 1130 + PL 1140)

Covers concepts such as the process of civil litigation from initial client contact through post-trial procedures. Rules of civil procedure and rules of the various courts are covered. Students develop a forms and procedures notebook.

PL 2130 – Criminal Litigation 3
Previously PL 206 (Prerequisite: CIS 1120 + ENG 1102 + PL 1130 + PL 1140)

Covers concepts such as the process of criminal litigation from initial appearance through post-conviction proceedings. Students will draft documents associated with the prosecution or defense at various stages, review rules of criminal procedure of several courts and develop a forms and procedures notebook.

PL 2140 – Legal Research and Writing II 3
Previously PL 204 (Prerequisite: CIS 1120 + ENG 1102 + PL 1130 + PL 1140)

Continues development of legal research, analysis and writing skills, with the focus on advanced legal research problems.

PL 2150 – Evidence 3
Previously PL 224 (Prerequisite: CIS 1120 + ENG 1102 + PL 1130 + PL 1140. Recommended corequisite: CJ 2515)

Examines how facts are proved in civil and criminal trials, with focus on rules of evidence in state and federal courts; emphasizes admissibility, relevance, credibility and authenticity of witness testimony, documents and other proof.

PL 2160 – Law Office Management 3
Previously PL 233 (Prerequisite: CIS 1120 + ENG 1102 + PL 1130 + PL 1140)

Prepares students to coordinate and oversee the administrative functions of a small to medium firm. Includes ethics, law office systems, timekeeping, technology and personnel management.

PL 2220 – Wills, Probate and Estate Planning 3
Previously PL 221 (Prerequisite: PL 2120 or PL 2130; PL 2140 + 2150 + 2160)

Covers concepts such as the drafting of wills and trusts, administration of estates, formal and informal probate proceedings and estate tax returns. A review of the probate code and drafting projects are included.

PL 2230 – Computer-Aided Legal Research 1
Previously PL 231A (Prerequisite: CIS 1120 + PL 1130 + PL 1140)

Covers concepts such as research using the Internet, legal and non-legal databases including Westlaw and New Mexico One Source. (5 weeks; 10 theory + 15 lab hours per course)

PL 2233 – Computer Applications in Law Practice 1
Previously PL 231B (Prerequisite: CIS 1120 + PL 1130 + PL 1140)

Covers law-oriented concepts and applications using word processing, spreadsheets and data management programs. (5 weeks; 10 theory + 15 lab hours per course)

PL 2236 – Specialized Legal Software 1
Previously PL 231C (Prerequisite: CIS 1120 + PL 1130 + PL 1140)

Introduces students to various law-oriented software in the area of case management, time and billing, deposition digest and calendaring and docket control. (5 weeks; 10 theory + 15 lab hours per course)

PL 2415 – Business Organizations 3
Previously PL 102 (Prerequisite: PL 1140 or department approval)

Covers concepts such as the various types of business entities including sole proprietorships, partnerships, limited liability companies and corporations. Agency principles, regulatory requirements and business ethics are also included.

PL 2420 – Contract Law 3
Previously PL 201 (Prerequisite: PL 1140 or department approval)

Focuses on the law of contracts, rights and responsibilities, formation, consideration, enforceability, remedies and third parties, as well as case study and analysis. The student will draft a written contract.

Course Subject Code/Course Number – Course Name Credit Hours

PL 2425 – Domestic Relations 3
Previously PL 223 (Prerequisite: PL 1140 or department approval)

Focuses on legal issues in family relations with emphasis on local procedures in the domestic relations court and its satellites.

PL 2430 – Constitutional Law 3
Previously PL 225 (Prerequisite: PL 1140 or department approval)

Focuses on concepts such as civil rights and liberties under the Constitution, free speech, religious freedom, racial discrimination, group rights, privacy, political participation and various contemporary issues.

PL 2435 – Civil Litigation II 3
Previously PL 230 (Prerequisite: PL 2120 + 2140 + 2150)

Implements concepts learned in Civil Litigation through student participation in a hypothetical case and study, completing more sophisticated tasks in civil litigation, evidence rules, concepts and objections.

PL 2440 – Criminal Litigation II 3
Previously PL 243 (Prerequisite: PL 2130 + 2140 + 2150)

Implements concepts learned in Criminal Litigation through student participation in a hypothetical case and study, completing more sophisticated tasks in criminal litigation, evidence rules, concepts and objections.

PL 2445 – Personal Injury Law 3
Previously PL 232 (Prerequisite: PL 1130 + PL 1140; or department approval)

Focuses on the medical aspects and documentation of personal injuries in tort, workers' compensation and Social Security disability law.

PL 2450 – Administrative Law 3
Previously PL 234 (Prerequisite: PL 1140 or department approval)

Focuses on the policies, practices and procedures of governmental agencies and state and local administrations.

PL 2455 – Employment Law 3
Previously PL 236 (Prerequisite: PL 1140 or department approval)

Focuses on the history of discrimination law and current federal protections, the principle of equal treatment, litigation involving unequal treatment, seniority, sexual and racial harassment, pay equity, labor relations and remedies.

PL 2460 – Native American Law 3
Previously PL 242 (Prerequisite: PL 1140 or department approval)

Focuses on Native American law to prepare students to work in private law firms or other settings that specialize in Native American law or that practice in tribal courts or other tribunals that consider interests of individuals as natives or Indian groups.

PL 2465 – Social Security Law 1
Previously PL 244 (Prerequisite: PL 1140 or department approval)

Focuses on representing clients through the Social Security administrative process, disability evaluation, procedural issues and regulations, federal law and medical terminology. (5 weeks)

PL 2470 – Bankruptcy Law 1
Previously PL 245 (Prerequisite: PL 1140 or department approval)

Focuses on bankruptcy practice, Bankruptcy Code and Rules of Bankruptcy Procedure. (5 weeks)

PL 2520 – Mediation **3**

Previously PL 294 (Prerequisite: department approval)

Introduces fundamental skills involved in mediating disputes. Students find and cover the expenses of their own training programs. CNM supervision of the student's experience must be arranged between the student and an instructor, for a total of 45 hours under a written agreement provided by the Paralegal Studies office. Students may complete written assignments to fulfill some of the required hours at the discretion of the instructor. The student is jointly evaluated by the mediation trainer and the instructor or will be required to produce a certificate of completion of a recognized mediation training program. The course is offered subject to availability of trainers.

PL 2530 – Public Defender **3**

Previously PL 295 (Prerequisite: department approval)

Requires students to work 135 hours in the local Public Defender's Office under the supervision of an attorney or attorney's designate and become familiar with all forms of case preparation for indigent criminal defendants. CNM supervision of the student's experience must be arranged between the student and an instructor under a written agreement provided by the Paralegal Studies office. The student is jointly evaluated by the Public Defender's Office and the instructor. The course is offered subject to availability of a supervising attorney or attorney's designate.

PLAP – Plumbing Apprenticeship School of Applied Technologies

PLAP 1117 – Plumbing Apprenticeship **5-7**

Previously PLAP 198A (Prerequisite: current full-time employment in the plumbing industry)

Provides 75–105 hours of classroom instruction, which includes safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

PLAP 1127 – Plumbing Apprenticeship **5-7**

Previously PLAP 198B (Prerequisite: current full-time employment in the plumbing industry)

Provides 75–105 hours of classroom instruction, which includes safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

PLAP 1217 – Plumbing Apprenticeship **5-7**

Previously PLAP 198C (Prerequisite: current full-time employment in the plumbing industry)

Provides 75–105 hours of classroom instruction, which includes safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

PLAP 1227 – Plumbing Apprenticeship **5-7**

Previously PLAP 198D (Prerequisite: current full-time employment in the plumbing industry)

Provides 75–105 hours of classroom instruction, which includes safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

PLAP 1317 – Plumbing Apprenticeship **5-7**

Previously PLAP 198E (Prerequisite: current full-time employment in the plumbing industry)

Provides 75–105 hours of classroom instruction, which includes safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

Course Subject Code/Course Number – Course Name Credit Hours

PLAP 1327 – Plumbing Apprenticeship **5-7**

Previously PLAP 198F (Prerequisite: current full-time employment in the plumbing industry)

Provides 75–105 hours of classroom instruction, which includes safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

PLAP 1417 – Plumbing Apprenticeship **5-7**

Previously PLAP 198G (Prerequisite: current full-time employment in the plumbing industry)

Provides 75–105 hours of classroom instruction, which includes safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

PLAP 1427 – Plumbing Apprenticeship **5-7**

Previously PLAP 198H (Prerequisite: current full-time employment in the plumbing industry)

Provides 75–105 hours of classroom instruction, which includes safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

PLAP 1517 – Plumbing Apprenticeship **5-7**

Previously PLAP 198I (Prerequisite: current full-time employment in the plumbing industry)

Provides 75–105 hours of classroom instruction, which includes safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

PLAP 1527 – Plumbing Apprenticeship **5-7**

Previously PLAP 198J (Prerequisite: current full-time employment in the plumbing industry)

Provides 75–105 hours of classroom instruction, which includes safety, shop and trade math, plumbing processes, blueprint reading and mechanical code (plumbing) interpretation.

PLMB – Plumbing Courses School of Applied Technologies

PLMB 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

PLMB 1105 – Plumbing and Safety Fundamentals **3**

Previously PLMB 121 (Prerequisite: MATH 0550 or appropriate placement scores, see page 12; or department approval. Recommended prerequisite: RDG 0750)

Introduces the basic fundamentals of plumbing and emphasizes the importance of safety specific to the plumbing trades. (30 theory + 37.5 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

PLMB 1110 – Blueprint Reading **2**

Previously PLMB 122

Explores interpretation of residential and commercial blueprints and isometric drawings. The students are taught the basics of sketching and design. (15 theory + 37.5 lab hours per term)

PLMB 1115 – Introduction to Gas Fitting and Pipe Laying **2**

Previously PLMB 123 (Pre- or corequisite: PLMB 1105 + PLMB 1110; or department approval)

Investigates design layout and installation of piping systems and the fundamentals of gas burning appliances. (15 theory + 37.5 lab hours per term)

PLMB 1120 – Drain, Waste and Vent I **2**
Previously PLMB 124 (Pre- or corequisite: PLMB 1105 + PLMB 1110; or department approval)

Emphasizes layout and design of drain and vent systems in residential buildings. (15 theory + 37.5 lab hours per term)

PLMB 1125 – Drain, Waste and Vent II **2**
Previously PLMB 125 (Pre- or corequisite: PLMB 1105 + PLMB 1120; or department approval)

Describes layout and design of drain and vent systems in commercial buildings. (15 theory + 37.5 lab hours per term)

PLMB 1130 – Piping Systems **2**
Previously PLMB 126 (Pre- or corequisite: PLMB 1105 + PLMB 1115; or department approval)

Introduces layout and design of water piping systems as well as the installation of plumbing fixtures. (15 theory + 37.5 lab hours per term)

PLMB 1205 – Backflow Prevention **2**
Previously PLMB 131

Focuses on the requirements of installation, repair and testing of backflow prevention assemblies. The successful completion of this course will qualify the student for a City of Albuquerque Backflow Tester's certificate. (15 theory + 37.5 lab hours per term)

PLMB 1210 – Commercial Plumbing **2**
Previously PLMB 132

Presents the different aspects of the commercial plumbing industry. (15 theory + 37.5 lab hours per term)

PLMB 1215 – Plumbing Theory and Repair **2**
Previously PLMB 133 (Pre- or corequisite: PLMB 1125 + PLMB 1130; or department approval)

Focuses on maintenance and repair of plumbing fixtures and includes the scientific principals explaining why water supply and sewage systems work as well as mathematical principals of plumbing. (15 theory + 37.5 lab hours per term)

PLMB 1220 – Plumbing Code Applications **3**
Previously PLMB 134 (Pre- or corequisite: PLMB 1105 + PLMB 1110; or department approval)

Prepares student to take the hands-on and written portions of the Journeyman's test in the state of New Mexico. (30 theory + 37.5 lab hours per term)

PLMB 1225 – Building Maintenance and Repair **2**
Previously PLMB 135 (Pre- or corequisite: PLMB 1215 or department approval)

Presents requirements for installation and repair of heating and cooling systems for commercial and residential applications. (15 theory + 37.5 lab hours per term)

PLMB 1230 – Hydronics and Plumbing Systems **2**
Previously PLMB 136 (Pre- or corequisite: PLMB 1115 + PLMB 1130; or department approval)

Explores hydronic heating and the special problems of the manufactured housing industry and rural plumbing. (15 theory + 37.5 lab hours per term)

PLMB 1305 – Trades Math **1**
Previously PLMB 170

Includes basic arithmetic, whole numbers, fractions and decimals. Covers volumes, weight measurements and basic algebra as it applies to plumbing.

Course Subject Code/Course Number – Course Name Credit Hours

PLMB 1310 – Journeyman Preparation **3**
Previously PLMB 171

Introduces licensing requirements, rules and regulations and the Uniform Plumbing Code for persons interested in becoming journey level plumbers and natural gas fitters in New Mexico.

PLMB 2096, 2196...2996 – Special Topics **1–6**
(all courses ending in 96 are topics courses)
Previously PLMB 296

Enables students currently in the plumbing trades to pursue studies in specialized areas. This class also may be taken as an independent or guided study or as a refresher to sharpen skills prior to licensing.

PLMB 2997 – Independent Study **1-6**
Previously PLMB 297 (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

PLMB 2999 – Plumbing Capstone Course **1**
Previously PLMB 295 (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies. (Taken during student's last term).

PM – Project Management Courses School of Business & Information Technology

PM 1096, 1196...1996 – Special Topics **1-3**
(all courses ending in 96 are topics courses)
Previously PM 296 (Prerequisite: department approval)

Focuses on current topics in project management.

PM 1130 – Project Management Fundamentals **3**
Previously PM 130 (Prerequisite: RDG 0950 + ENG 0950; or appropriate placement scores, see page 12; or department approval)

Provides an introduction to the field of project management in theory and practice, addresses the role of project managers in the current world of rapid change, increased competitive forces and increased expectations for the successful delivery of projects in organizations and exposes the student to "hard" and "soft" techniques of project management.

PM 1150 – Effective Project Management **3**
Previously PM 150 (Prerequisite: RDG 0950 + ENG 0950; or department approval)

Focuses on the competencies needed to apply effective project concepts and methodologies to create a positive project environment. Effective leadership and team management concepts and how these concepts are used to align project management functions within an organization are presented.

PM 2095 – Cooperative Education **4**
Previously PM 299 (Prerequisite: department approval)

Provides an opportunity for a structured educational "paid" work experience related to a student's academic goals. Internship is a partnership between the student and both the educational institution and the employer, with specified responsibilities for each party. Requires a minimum of 150 hours and must involve a new learning experience.

PM 2096, 2196...2996 – Special Topics **1-3**
(all courses ending in 96 are topics courses)
Previously PM 296 (Prerequisite: department approval)

Focuses on current topics in project management.

PM 2097 – Independent Study **1-3**
Previously PM 297 (Prerequisite: department approval)

Student works with the instructor on specific topics directly related to the course or program of study. The meeting time is arranged between the student and the instructor.

PM 2098 – Internship **4**

Previously PM 298 (Prerequisite: department approval)

Provides an opportunity for a structured educational "unpaid" work experience related to a student's academic goals. Internship is a partnership between the student and both the educational institution and the employer, with specified responsibilities for each party. Requires a minimum of 150 hours and must involve a new learning experience.

PM 2200 – Budget and Resource Management **3**

Previously PM 200 (Prerequisite: IT 1010 + PM 1130; or department approval)

Exposes the student to earned value method and resource allocation to establish a realistic project baseline. Strategies used to effectively monitor, measure and control cost and schedule are also addressed. Emphasis will be placed on applying effective methods for keeping the project budget and schedule on target, setting project standards and effective use of metrics to measure project success.

PM 2210 – Contract Management **3**

Previously PM 210 (Prerequisite: PM 1130 or department approval)

Covers various forms of project contracts and legal documentation. Critical duties performed by contracting personnel and project managers during the negotiation and contract administration phase of the acquisition process are emphasized.

PM 2250 – Advanced Project Management **3**

Previously PM 250 (Prerequisite: PM 1130 + PM 1150 + PM 2200 + PM 2210; or department approval)

Emphasizes the various types of knowledge and skills that are required by an experienced project manager and how to deal with advanced problems in organization structure, behavior and leadership. Students create a project plan, prepare a project master schedule, develop a work breakdown structure, allocate various resources and assign labor amounts to a specific project. Program core competencies are also measured in this course.

PN – Practical Nursing Courses School of Health, Wellness & Public Safety

For Practical Nursing Courses please see (NURS) Nursing courses.

PORT – Portuguese Courses School of Communication, Humanities & Social Sciences

PORT 2096, 2196…2996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

PSCI – Political Science Courses School of Communication, Humanities & Social Sciences

PSCI 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

PSCI 1110 – The Political World **3**

Previously PSCI 110

Introduces politics, emphasizing how people can understand their own political systems and those of others.

PSCI 2096, 2196...2996 – Special Topics **1-6**

(all courses ending in 96 are topics courses)

Previously PSCI 296

Presents various topics. See *Schedule of Classes*.

PSCI 2200 – U.S. Politics **3**

Previously PSCI 200

Surveys American politics: theory of democracy and political institutions, governmental branches and their bureaucracies.

Course Subject Code/Course Number – Course Name Credit Hours

PSCI 2210 – State and Local Politics **3**

Previously PSCI 210

Analyzes state and local politics, using New Mexico and other states as examples. Fall, spring only.

PSCI 2220 – Comparative Government and Politics **3**

Previously PSCI 220

Compares the roles of public opinion, electoral systems, political parties, interest groups, governmental institutions and policy performance in European democracies, developing third-world nations and communist political systems.

PSCI 2240 – International Politics **3**

Previously PSCI 240

Examines political behavior between and among nations, including various significant factors in international politics: nationalism, ideology, deterrence, balance of power, international law, and international conflict and collaboration.

PSCI 2260 – Political Ideas **3**

Previously PSCI 260

Surveys classical and contemporary political ideas and ideologies; introduces many of the enduring political issues, which are presented in descriptive, analytical and normative terms. Fall only.

PSY – Psychology Courses School of Communication, Humanities & Social Sciences

PSY 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

PSY 1105 – Introduction to Psychology **3**

Previously PSY 105 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Introduces psychology as the scientific study of behavior and mental processes: methodology, psychobiology, learning, memory, personality, psychological disorders, therapy, personality and social psychology.

PSY 1130 – Practical Psychology **3**

Previously PSY 130 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Focuses on practical applications of psychological knowledge: stress and mood management, communication and relationships, developmental issues and mental health.

PSY 2096, 2196...2996 – Special Topics **3**

(all courses ending in 96 are topics courses)

Previously PSY 296 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents various topics. See *Schedule of Classes*.

PSY 2200 – Statistical Principles **3**

Previously PSY 200 (Prerequisite: PSY 1105; MATH 0940 or appropriate placement scores, see page 12. Recommended prerequisite: MATH 1210 or MATH 1310)

Introduces basic statistics principles for the description and interpretation of psychological data: frequency distributions, graphing, measures of central tendency, variability, regression, correlation, hypothesis testing and analysis of variance. Fall, spring only.

PSY 2220 – Developmental Psychology **3**

Previously PSY 220 (Prerequisite: PSY 1105)

Emphasizes physical, social, emotional and intellectual development across the life span, including professional research and applications.

PSY 2231 – Human Sexuality 3
Previously PSY 231 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: PSY 1105)

Surveys and analyzes physiological, cultural, social and individual factors that influence sexual behavior, sex roles and sex identity.

PSY 2232 – Clinical Psychology 3
Previously PSY 232 (Prerequisite: PSY 1105)

Examines clinical psychology as a profession and research area: psychometrics and assessment, systems of prevention and therapy, forensic psychology, program evaluation, professional and ethical issues.

PSY 2233 – Psychology and Film 3
Previously PSY 233 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: PSY 1105)

Analyzes psychiatric disorders as portrayed in films, offering an opportunity to see realistic manifestations of "madness," and cinema's ability to reflect and to affect perceptions of mental illness and treatment.

PSY 2240 – Brain and Behavior 3
Previously PSY 240 (Prerequisite: PSY 1105 or BIO 1410/1492)

Surveys the role of the nervous system in the control of behavior and mental processes. Fall, spring only.

PSY 2260 – Psychology of Learning and Memory 3
Previously PSY 260 (Prerequisite: PSY 1105)

Introduces study of learning in the laboratory, ranging from simple processes such as conditioning to complex ones such as transfer, memory and concept formulation. Fall only.

PSY 2265 – Cognitive Psychology 3
Previously PSY 265 (Prerequisite: PSY 1105)

Presents theories and research on various mental processes: memory (encoding, storage and retrieval), attention, comprehension, categorization, reasoning, problem solving, language and motor skills. Spring only.

PSY 2271 – Social Psychology 3
Previously PSY 271 (Prerequisite: PSY 1105 or SOC 1101)

Emphasizes study of social interaction: communication, perception of the self and others, attitudes and leadership. Fall, spring only.

PSY 2289 – Death and Dying 3
Previously PSY 299 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Examines psychological, emotional and sociological aspects of death in American culture.

PT – Pharmacy Technician Courses School of Health, Wellness & Public Safety

PT 1003 – Pharmacy Calculations 3
Previously PT 116 (Prerequisite: CHEM 0950 or CHEM 1410/1492. Pre- or corequisite: IT 1010. Corequisite: PT 1010 + 1015 + 1092)

Provides skills in pharmaceutical calculations necessary for safely compounding and preparing prescriptions or other pharmacy products.

PT 1010 – Introduction to Pharmacy Technology 3
(Corequisite: PT 1003 + 1015 + 1092)

Provides a discussion of the pharmacy technician's role, the history of pharmacy, state and federal laws, ethics, professional standards of practice, prescription preparation and institutional drug distribution.

PT 1015 – Pharmacy Technician Anatomy and Physiology 3
Previously PT 115 (Corequisite: PT 1010 + 1003 + 1092)

Provides an introduction to basic human anatomy and physiology, with emphasis on physiology as the foundation for pharmacology.

Course Subject Code/Course Number – Course Name Credit Hours

PT 1092 – Pharmacy Technician Lab I 2
Previously PT 111L (Prerequisite: department approval. Corequisite: PT 1003 + 1010 + 1015)

Focuses on the fundamentals of current pharmacy practice, including drug nomenclature, medical terminology and basic pharmacy skills. Lab includes practice in interpreting prescriptions, introduction to packaging and dispensing medications, extensive theory and experiential training in aseptic preparation of compounded sterile products including use of Laminar flow hood for media fill validation testing. (90 lab hours per term)

PT 1096, 1196...1996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
Previously PT 296

Explore various topics of interest in the field of Pharmacy Technology.

PT 1510 – Advanced Pharmacy Technology 3
Previously PT 120 (Prerequisite: PT 1010 + 1003 + 1015 + 1092. Pre- or corequisite: COMM 1130 or COMM 2221 or COMM 2225 or COMM 2232. Corequisite: PT 1515 + 1590 + 1592)

Continues study of dosage forms and routes of administration begun in PT 1010; covers techniques for compounding of drug products; drug selection, packaging and stability; practical aspects of successful employment and customer service; and theory relating to parenteral products.

PT 1515 – Pharmacology for Pharmacy Technicians 3
Previously PT 125 (Corequisite: PT 1510 + 1590 + 1592)

Presents study of therapeutic drug categories, how drugs produce their effects and common side effects.

PT 1590 – Pharmacy Technician Practicum 5
Previously PT 122C (Prerequisite: PT 1010 + 1003 + 1015 + 1092. Corequisite: PT 1510 + 1515 + 1592)

Provides students the opportunity to gain practical experience in institutional and community pharmacies in applying what they have learned in classrooms and labs. (225 clinical hours per term)

PT 1592 – Pharmacy Technician Lab II 2
Previously PT 121L ((Prerequisite: PT 1010 + 1003 + 1015 + 1092. Corequisite: PT 1510 + 1515 + 1590)

Provides further opportunity to develop skills in both non-sterile and sterile compounding of drug products, use of a laminar flow hood, reconstituting, compounding, packaging and labeling. Emphasis on preparation for the national Pharmacy Technician Certification Exam (PTCE).

RADT – Radiologic Technology Courses School of Health, Wellness & Public Safety

RADT 1003 – Introduction to Radiologic Technology 1
Previously RADT 101(Prerequisite: department approval + ENG 1101 + BIO 2210 + BIO 2392. Pre- or corequisite: BIO 2310 + BIO 2392. Corequisite: RADT 1005 + 1070 + 1090)

Introduces students to Radiologic Technology as a health science profession. Includes an introduction to the clinical setting, radiology and hospital organization, radiation protection and monitoring, ethical and legal issues of medical imaging, confidentiality, to include diversity and anti-discrimination issues in employment situations, professional organizations, professional development, accreditation and credentialing and computers in the workplace.
$ Additional fees published in the *Schedule of Classes*.

RADT 1005 – Fundamentals of Radiography 3

Previously RADT 102 (Corequisite: RADT 1003 + 1070 + 1090)

Presents the production of the radiographic image on film. The course will include exposure factors, the interaction of x-rays and matter, basic image receptor principles, image quality and basic physics of x-ray equipment. Consideration will be given to how processing and exposure variables affect the final radiograph. Film characteristics and adjuncts (screens, grids) will be explored. Technique formulation and exposure compensations will be studied and practiced.

RADT 1070 – Radiographic Positioning I 3

Previously RADT 103L (Corequisite: RADT 1003 + 1005 + 1090)

Presents the fundamentals of radiographic terminology, anatomy and positioning used in routine radiographic procedures of the chest, abdomen, extremities, ribs, pelvic girdle and shoulder girdle. Other relative topics will include clinical histories, patient care, lifting and moving patients, improvisation, radiographic requisitions and reports, film critique, basic equipment and portable radiography. (30 theory + 45 lab hours per term)

RADT 1090 – Clinical Radiography I 5

Previously RADT 130C (Prerequisite: HLTH 1001. Corequisite: RADT 1003 + 1005 + 1070)

Introduces the clinical environment in a clinical facility. Development of basic competencies under direct supervision in selected procedures studied in the college classroom and laboratory (chest, abdomens, extremities) Observation and participation in office procedures, film filing, patient transport, darkroom and exposure rooms. Manipulation of radiographic equipment—collimator, table, tube, marking systems. Setting of exposure factors according to charts. Patient care will include transfer techniques and emphasize a concern for patient comfort. Film critique will be carried out regularly. (225 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

RADT 1096, 1196...1996 – Special Topics 1-6

(all courses ending in 96 are topics courses)

Previously RADT 296

Explore various topics of interest in the field of Radiologic Technology.

RADT 1503 – Patient Care in Radiography 2

Previously RADT 106 (Prerequisite: RADT 1090. Pre- or corequisite: PSY 1105. Corequisite: RADT 1510 + 1570 + 1590)

Covers issues related to patient care including legal and professional responsibilities, patient rights, patient confidentiality, security, patient education, safety and comfort, infection control and prevention, patient monitoring, contrast media, pharmacology and parental drug administration.

RADT 1510 – Radiobiology and Protection 3

Previously RADT 110 (Corequisite: RADT 1503 + 1570 + 1590)

Presents biological effects of radiation exposure to human cells and tissues including genetic, somatic, short and long-term effects. Topics include radiation measurements, policies and protection measures for technologists, patients and others. Minimizing patient and personnel exposure, basic methods of protection, protective devises, units of measurement and sources of radiation exposure are covered.

Course Subject Code/Course Number – Course Name Credit Hours

RADT 1570 – Radiographic Positioning II 3

Previously RADT 104L (Corequisite: RADT 1503 + 1510 + 1590)

Continues course of study begun in RADT 1070 including procedures, projections, anatomy, oseology and arthrology of the vertebral column, skull and facial bones, sinuses and mastoids. Other topics will include foreign body localization and film critique. Surveys the common procedures of the gastrointestinal, urinary, respiratory, biliary and cardiovascular systems utilized to study the factors that govern and influence the production and recording of radiologic images. (30 theory + 45 lab hours per term)

RADT 1590 – Clinical Radiography II 4

Previously RADT 140C (Prerequisite: RADT 1090. Corequisite: RADT 1503 + 1510 + 1570)

Continues course of study begun in RADT 1090 with a continued development of competencies under direct supervision and practice in basic procedures learned in positioning I and II. Independent performance in selected procedures, film processing and film critiques and assistance in a variety of patient care needs. (180 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

RADT 2005 – Introduction to Quality Assurance 2

Previously RADT 207 (Prerequisite: RADT 1590. Corequisite: RADT 2010 + 2090 + 2092)

This course provides the student with an introduction to the evaluation of radiographic systems to assure consistency in the production of quality images. Components or radiography equipment and tests and procedures to evaluate these components are discussed.

RADT 2010 – Radiographic Imaging I 3

Previously RADT 202L (Prerequisite: RADT 1590. Pre- or corequisite: MATH 1210 or MATH 1310. Corequisite: RADT 2005 + 2090 + 2092)

Covers film and electronic imaging with related accessories. Employs radiographic film critique to emphasize the methods of diagnostic quality control. (30 theory + 45 lab hours per term)

RADT 2090 – Clinical Radiography III 6

Previously RADT 230C (Corequisite: RADT 2005 + 2010 + 2092)

Continues course of study begun in RADT 1590. A continued development of competencies under direct supervision and continuous practice of basic procedures learned in positioning I and II and Radiographic Imaging I. Independent and intermediate level of performance in selected procedures, film processing and film critiques. Assistance in a variety of patient care needs, safety issues, PACS and dye exposure. (270 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

RADT 2092 – Radiographic Film Critique Lab 1

Previously RADT 205L (Prerequisite: RADT 1590 + 1503 + 1510 + 1570 + 1590. Corequisite: RADT 2005 + 2010 + 2090)

Provides a clinical lab experience in clinical film critique to integrate clinical practice and classroom education. Evaluates technical error on radiographs and reviews strategies for avoiding future errors. (45 contact hours)

RADT 2096-2996 – Special Topics 1-6

(All courses ending in 96 are topics courses)

Explore various topics of interest in the field of Radiologic Technology. See *Schedule of Classes*.

RADT 2404 – Radiographic Imaging II 1

Previously RADT 203 (Prerequisite: RADT 2010. Corequisite: RADT 2408 + 2410 + 2490)

Surveys the special procedures and special imaging modalities (ultrasound, mammography, nuclear medicine, oncology and surgical radiography) utilized to explore topics in imaging equipment and image processing.

RADT 2408 – Radiographic Pathology 2
Previously RADT 208 (Corequisite: RADT 2404 + 2410 + 2490)

Continues course of study begun in RADT 2005. Surveys additional body systems and the relative pathologies affecting them. Radiographic imagine methods will be considered to demonstrate how to best demonstrate these pathologies.

RADT 2410 – Radiographic Physics and Instrumentation 3
Previously RADT 231 (Corequisite: RADT 2404 + 2408 + 2490)

A study of the physical principles of diagnostic radiography and computerized tomography and magnetic resonance imaging. Will also include Atomic Structure ECT.

RADT 2490 – Clinical Radiography IV 6
Previously RADT 240C (Corequisite: RADT 2404 + 2408 + 2410)

Continues course of study begun in RADT 2090 with indirect supervision, continued development of competence, and practice in basic positioning learned in Positioning I and II and Radiographic Imaging I and II. Independent/intermediate level of performance in selected procedures, film processing and film critiques. Assists in a variety of patient care activities. (180 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

RADT 2810 – Radiologic Technology Seminar 2
Previously RADT 280 (Prerequisite: RADT 2490. Corequisite: RADT 2890)

A capstone experience for students preparing for employment as radiologic technologists. Will consider topics in leadership, clinical management, professional development, quality assurance, quality control, professional organizations and preparation for the national registry exam as well as current developments in the field. **$ Additional fees published in the *Schedule of Classes*.**

RADT 2890 – Clinical Radiography V 8
Previously RADT 250C (Prerequisite: RADT 2490. Corequisite: RADT 2810)

Continues course of study begun in RADT 2490 with instruction and practice in a clinical facility under indirect/close supervision. Student will continue to develop competencies learned in Positioning I and II and Imaging I and II. Observation, involvement and assistance in special procedures and special imaging modalities. Review of radiographs, preparation for employment as radiologic technologists. (360 clinical hours) **$ Additional fees published in the *Schedule of Classes*.**

RDG – Reading Courses School of Adult & General Education

RDG 0196, 0296...0996 – Special Topics 1-6
(all courses ending in 96 are topics courses)

Presents various topics. See *Schedule of Classes*.

RDG 0750 – Reading Improvement 3
Previously RDG 099 (Prerequisite: ENG 0550 or appropriate placement scores, see page 12)

Introduces reading required for success in academic and career technical majors. Students work on improving reading skills and applying the reading process to a variety of reading tasks. (45 theory hours + 15 lab hours per term)

RDG 0950 – Reading and Critical Thinking 3
Previously RDG 100 (Prerequisite: RDG 0750 or appropriate placement scores, see page 12)

Focuses on reading required for success in college. Includes comprehension, problem solving, note-taking, summarizing and computer-assisted research skills. (45 theory hours + 15 lab hours per term)

RDG 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

Course Subject Code/Course Number – Course Name Credit Hours

RDG 2096, 2196…2996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

RLGN – Religion Courses School of Communication, Humanities & Social Sciences

RLGN 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

RLGN 1107 – Living World Religions 3
Previously RLGN 107 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Introduces the academic study of religion, focusing on major world religions: religions of antiquity, Hinduism, Buddhism, Taoism, Judaism, Christianity, Islam and religion in primal cultures.

RLGN 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)

Previously RLGN 247(Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents various topics. See *Schedule of Classes*.

RLGN 2240 – Ancient Religions 3
Previously RLGN 240 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Examines the religions of the ancient Middle East, Egypt, Greco-Roman, Germanic and Celtic worlds. Provides students with an understanding of the origins of modern religions and spirituality.

RLGN 2263 – Eastern Religions 3
Previously RLGN 263 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Provides an overview of the major religions of Asia, particularly the religions of India (Hinduism and Buddhism), Persia (Zoroastrianism), China (Confucianism and Taoism) and Japan (Shintoism and Zen Buddhism).

RNR – Nurse Refresher Courses School of Health, Wellness & Public Safety

RNR 2010 – Refresher Theory/Lab 7
Previously RNR 255L
Covers medical-surgical and specialty nursing, pharmacology and procedures. (6 weeks; 94 theory + 10 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

RNR 2090 – Refresher Clinical Experience (CR/NC) 2
Previously RNR 265C

Provides medical-surgical clinical experiences including total patient care. *(Must have had a valid RN license + professional CPR certification. Pre- or corequisite: RNR 2010)* (5 weeks)

RT – Respiratory Therapy Courses School of Health, Wellness & Public Safety

RT 1010/1070 – Respiratory Therapy Principles and Practices I 4
Previously RT 101/101L (Prerequisite: department approval + ENG 1101 + HLTH 1001 + MATH 1210. Corequisite: RT 1030 + RT 1090)

Introduces respiratory therapy as a health sciences profession. Includes cardiopulmonary assessment, medical gas administration, aerosol therapy, oxygen therapy, microbiology, infection control, equipment maintenance, incentive breathing exercises and chest physiotherapy. Students practice respiratory care procedures using state of the art equipment in the learning laboratory under simulated patient situations. (45 theory hours + 45 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

RT 1030 – Pharmacology of Respiratory Therapy 3
Previously RT 133 (Corequisite: RT 1010/1070 + RT 1090)

Presents concepts and principles of pharmacologic agents used in cardiopulmonary care. Includes study of biologic interactions, dosage calculations, side effects, indications for medication, therapeutic, diagnostic procedures and ethical and legal issues.

RT 1090 – Clinical Experiences I 4
Previously RT 121C (Corequisite: RT 1010/1070 + RT 1030)

Provides supervised clinical experiences in area hospitals and health care facilities related to concepts presented in RT 1010/1070. (180 clinical hours per term)

RT 1096, 1196...1996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
Previously RT 296 (Prerequisite: department approval)

Provides participation in supervised learning of advanced, specialized practices including cardiopulmonary diagnostics and specialized prenatal/ pediatric or adult critical care.

RT 1510/1570 – Respiratory Therapy Principles and Practices II 4
Previously RT 102/102L (Prerequisite: RT 1090. Pre- or corequisite: BIO 2210 + BIO 2292. Corequisite: RT 1540 + RT 1590)

Emphasizes airway management, pulmonary function testing, arterial puncture and blood gas analysis. Includes administering and home care therapy. Students practice respiratory care procedures using state of the art equipment in the learning laboratory under simulated patient situations. (45 theory hours + 45 lab hours per term)

RT 1540 Cardiopulmonary Pathophysiology I 1
Previously RT 140 (Corequisite: RT 1510/1570 + RT 1590)

Presents pathophysiology and management of patients with pulmonary diseases from the perspective of a physician including causes, signs and symptoms, pathophysiology, diagnosis, treatments and prognosis for patients with these problems. Specific topics include: basic concepts of COPD, preparing a case study, chest X-ray interpretation lung defense mechanisms, asthma, chest and lung malignancies, pneumonia, post-OP Complications and restrictive lung disease.

RT 1590 – Clinical Experiences II 4
Previously RT 122C (Corequisite: RT 1510/1570 + RT 1540)

Provides supervised clinical experiences in area hospitals and health care facilities related to concepts presented in RT 1510/1570. (180 clinical hours per term)

RT 1592 Supplemental Skills Lab 1
Previously RT 150 (Prerequisite: department approval)

Provides first-year Respiratory Therapy students the opportunity for additional learning and practice of respiratory therapy skills in the campus laboratory.

RT 2010/2070 – Advanced Respiratory Therapy I 4
Previously RT 201/201L (Prerequisite: RT 1590. Pre- or corequisite: PHIL 2247. Corequisite: RT 2040 + RT 2090)

Presents basic concepts of adult critical care medicine including adult intensive care and pathophysiology of diseases, introduction to concepts of positive pressure ventilation and advanced airway care. Introduction to positive pressure mechanical ventilation equipment and procedures related to basic critical care medicine for adults using state of the art equipment and computer simulations in the learning laboratory. (45 theory hours + 45 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

RT 2040 Cardiopulmonary Pathophysiology II 1
Previously RT 240 (Corequisite: RT 2010/2070 + RT 2090)

Presents pathophysiology and management of patients with pulmonary diseases from the perspective of a physician including causes, signs and symptoms, pathophysiology, diagnosis, treatments and prognosis for patients with these problems. Specific topics include: adult ventilator monitoring assessment, sleep apnea, complications of mechanical ventilation and non-invasive ventilation.

RT 2090 – Advanced Clinical Experiences I 4
Previously RT 221C (Corequisite: RT 2010/2070 + RT 2040)

Introduces skills for basic respiratory care in adult critical care settings with emphasis on problem solving and decision-making skills, patient evaluation skills and the evaluation of therapeutic care plans and initiating life support systems. (180 clinical hours per term)

RT 2092 Advanced Supplemental Skills Lab 1
Previously RT 250
Provides second-year Respiratory Therapy students the opportunity for additional learning and practice of respiratory therapy skills in the campus laboratory.

RT 2096-2996 – Special Topics 1-6
(All courses ending in 96 are topics courses)
(Prerequisite: department approval)

Provides participation in supervised learning of advanced, specialized practices including cardiopulmonary diagnostics and specialized prenatal/ pediatric or adult critical care. Presents various topics. See *Schedule of Classes.*

RT 2097 – Independent Study 1-6
Previously RT 297 (Prerequisite: department approval)

Provides opportunity for independent study in respiratory care such as preparation for licensing/credentialing exams.

RT 2098 – Internship 1-6
Previously RT 298 (Prerequisite: department approval)

Allows graduates of the AS RT program to continue learning experiences in conjunction with the UNM Health Sciences Center. Graduates will participate in nationally funded research projects that explore diagnosis, treatment, education and research.

RT 2410/2470 – Advanced Respiratory Therapy II 4
Previously RT 202/202L (Prerequisite: RT 2090. Pre- or corequisite: BIO 2310 + BIO 2392. Corequisite: RT 2440 + RT 2490)

Presents cardiopulmonary assessment and diagnosis in advanced critical care including correlation of cardiopulmonary anatomy, physiology and pathophysiology with evaluation of cardiopulmonary function. Presents clinical assessment techniques in advanced critical care, cardiopulmonary anatomy and physiology, hemodynamic monitoring and advanced cardiac life support using state of the art equipment and computer simulation in the learning laboratory. (45 theory hours + 45 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

RT 2440 Cardiopulmonary Pathophysiology III 1
Previously RT 241 (Corequisite: RT 2410/2470 + RT 2490)

Presents pathophysiology and management of patients with pulmonary diseases from the perspective of a physician including causes, signs and symptoms, pathophysiology, diagnosis, treatments and prognosis for patients with these problems: chest trauma, ACLS, pneumothorax, pulmonary vascular disease, Cor Pulmonale, sepsis syndrome, EKG interpretation.

RT 2490 – Advanced Clinical Experiences II 4

Previously RT 222C (Corequisite: RT 2410/2470 + RT 2440)

Introduces skills for advanced respiratory care in adult critical care clinical settings with emphasis on problem-solving and decision-making skills. Experiences include cardiopulmonary function monitoring and maintaining life support systems. (180 clinical hours per term)

RT 2810/2870 – Advanced Respiratory Therapy III 4

Previously RT 203/203L (Prerequisite: RT 2490. Pre- or corequisite: BIO 2110 + BIO 2192. Corequisite: RT 2840 + RT 2890)

Presents concepts of critical care medicine for children and infants including theory of life support systems. Presents concepts of rehabilitative practice for patients with chronic cardiopulmonary diseases. Introduces strategies for successful completion of national board exams. Presents mechanical ventilation procedures related to critical care medicine for children and infants using state of the art equipment and computer simulations in the learning laboratory. (45 theory hours + 45 lab hours per term)

RT 2840 Cardiopulmonary Pathophysiology IV 1

Previously RT 242 (Corequisite: RT 2810/2870 + RT 2890)

Presents pathophysiology and management of patients with pulmonary diseases from the perspective of a physician including causes, signs and symptoms, pathophysiology, diagnosis, treatments and prognosis for patients with these problems. Specific topics include: IRDS/BPD, cystic fibrosis, CHF, CO poisoning, neuromuscular disease, trauma and burn, COPD, respiratory failure, ARDS.

RT 2890 – Advanced Clinical Experiences III 4

Previously RT 223C (Corequisite: RT 2810/2870 + RT 2840)

Introduces skills for respiratory care in pediatric and neonatal critical care environments including initiation, monitoring and maintaining life support systems. Introduces clinical experiences with conducting pulmonary rehabilitation. Includes independent study project in an area of respiratory care and supervised mentorship experiences. (180 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

SCSE – Sportscraft/Small Engine Courses School of Applied Technologies

SCSE 1070 – Small Engine Skills Improvement I 3

Previously SCSE 170L

Covers the diagnosis and repair of small air-cooled engines, safety, engine identification, special tools, ignition, cooling, lubrication, engine rebuilding and fuel systems. (15 theory + 75 lab hours per term)

SCSE 1075 – Small Engine Skills Improvement II 3

Previously SCSE 171L

Presents safe practices in the diagnosis and repair of power equipment, chain saw service and chain sharpening, blower and line trimmer service. (15 theory + 75 lab hours per term)

SCSE 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

SMAP – Sheet Metal Apprenticeship School of Applied Technologies

SMAP 1115 – Sheet Metal Apprenticeship 5-7

Previously SMAP 198A (Prerequisite: current full-time employment in the sheet metal industry or department approval)

Provides 75–105 hours of related classroom instruction. Instruction covers safety, trade math, sheet metal processes, triangulation layout, radial line layout, parallel line layout, blueprint reading and Sheet Metal and Air Conditioning National Association (SMACNA) manuals.

Course Subject Code/Course Number – Course Name Credit Hours

SMAP 1125 – Sheet Metal Apprenticeship 5-7

Previously known as SMAP 198B (Prerequisite: current full-time employment in the sheet metal industry or department approval)

Provides 75–105 hours of related classroom instruction. Instruction covers safety, trade math, sheet metal processes, triangulation layout, radial line layout, parallel line layout, blueprint reading and Sheet Metal and Air Conditioning National Association (SMACNA) manuals.

SMAP 1215 – Sheet Metal Apprenticeship 5-7

Previously SMAP 198C (Prerequisite: current full-time employment in the sheet metal industry or department approval)

Provides 75–105 hours of related classroom instruction. Instruction covers safety, trade math, sheet metal processes, triangulation layout, radial line layout, parallel line layout, blueprint reading and Sheet Metal and Air Conditioning National Association (SMACNA) manuals.

SMAP 1225 – Sheet Metal Apprenticeship 5-7

Previously SMAP 198D (Prerequisite: current full-time employment in the sheet metal industry or department approval)

Provides 75–105 hours of related classroom instruction. Instruction covers safety, trade math, sheet metal processes, triangulation layout, radial line layout, parallel line layout, blueprint reading and Sheet Metal and Air Conditioning National Association (SMACNA) manuals.

SMAP 1315 – Sheet Metal Apprenticeship 5-7

Previously SMAP 198E (Prerequisite: current full-time employment in the sheet metal industry or department approval)

Provides 75–105 hours of related classroom instruction. Instruction covers safety, trade math, sheet metal processes, triangulation layout, radial line layout, parallel line layout, blueprint reading and Sheet Metal and Air Conditioning National Association (SMACNA) manuals.

SMAP 1325 – Sheet Metal Apprenticeship 5-7

Previously SMAP 198F (Prerequisite: current full-time employment in the sheet metal industry or department approval)

Provides 75–105 hours of related classroom instruction. Instruction covers safety, trade math, sheet metal processes, triangulation layout, radial line layout, parallel line layout, blueprint reading and Sheet Metal and Air Conditioning National Association (SMACNA) manuals.

SMAP 1415 – Sheet Metal Apprenticeship 5-7

Previously SMAP 198G (Prerequisite: current full-time employment in the sheet metal industry or department approval)

Provides 75–105 hours of related classroom instruction. Instruction covers safety, trade math, sheet metal processes, triangulation layout, radial line layout, parallel line layout, blueprint reading and Sheet Metal and Air Conditioning National Association (SMACNA) manuals.

SMAP 1425 – Sheet Metal Apprenticeship 5-7

Previously SMAP 198H (Prerequisite: current full-time employment in the sheet metal industry or department approval)

Provides 75–105 hours of related classroom instruction. Instruction covers safety, trade math, sheet metal processes, triangulation layout, radial line layout, parallel line layout, blueprint reading and Sheet Metal and Air Conditioning National Association (SMACNA) manuals.

SMT – Semiconductor Manufacturing Tech Courses School of Applied Technologies

SMT 2001 – Semiconductor Manufacturing Technology Theory 3

Previously SMT 204 (Prerequisite: ELEC 1005 + ELEC 1020. Corequisite: SMT 2002)

Introduces integrated circuit manufacturing, including the basics of semiconductor materials and devices, integrated circuits, clean room technology and topics in wafer processing. Laboratory exercises are conducted in a clean room.

SMT 2092 – Semiconductor Manufacturing Technology Lab 2
Previously SMT 204L (Corequisite: SMT 2001)

Provides a lab course for SMT 204. Students meet twice per week. (90 lab hours per term)

SMT 2096, 2196…2996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

SOC – Sociology Courses School of Communication, Humanities & Social Sciences

SOC 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

SOC 1101 – Introduction to Sociology 3
Previously SOC 101 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Introduces basic concepts and theories of contemporary sociology: culture, socialization, social groups, deviance, race and ethnicity, gender, age, family, medicine and religion.

SOC 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)

Previously SOC 296 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents various topics. See *Schedule of Classes*.

SOC 2205 – Crime, Public Policy and the Criminal Justice System 3
(Prerequisite: SOC 1101)

Discusses key criminological concepts, the measurement of crime and delinquency, the distribution of crime in society, victimization, public opinion, the criminal justice system, crime control strategies and policies.

SOC 2211 – Social Problems 3
Previously SOC 211 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: SOC 1101)

Analyzes a range of social problems in contemporary U.S. society: racism and prejudice, crime and delinquency, mental disorders, family changes, poverty and substance abuse.

SOC 2212 – Juvenile Delinquency 3
Previously SOC 212 (Prerequisite: SOC 1101)

Emphasizes theories of juvenile delinquency, child abuse, the juvenile justice system, probation, treatment and corrections for juveniles.

SOC 2213 – Deviant Behavior 3
Previously SOC 213 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: SOC 1101)

Examines theories of deviance and behaviors such as rape, murder, theft, drug use, alcoholism, prostitution, mental disorders and suicide.

SOC 2214 – Sociology of Corrections 3
Previously SOC 214 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Introduces theory, practice and legal basis for investigation, treatment and supervision of offenders in custody, on probation, or parole. Discusses history of penology and various penal philosophies.

SOC 2215 – Criminology 3
Previously SOC 215 (Prerequisite: SOC 1101)

Examines causes of crime based on sociological factors, the various faces of crime, the criminal past and present and criminology theory.

Course Subject Code/Course Number – Course Name Credit Hours

SOC 2216 – Ethnic and Minority Groups 3
Previously SOC 216 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: SOC 1101)

Examines relationships among majority and minority ethnic groups: prejudice, discrimination, stereotyping, pluralism and social mobility.

SOC 2225 – Sociology of Family 3
Previously SOC 225 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents major theories of the family and the status of the modern family in an era of varied family forms.

SOC 2230 – Society and Personality 3
Previously SOC 230 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: SOC 1101 or PSY 1105)

Introduces topics in social psychology, such as personality theories, concepts of self, human relationships, small group dynamics and organizational theories.

SOC 2235 – Sociology of Gender 3
Previously SOC 235 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12. Recommended prerequisite: SOC 1101 or PSY 1105)

Focuses on the nature and content of gender in the U.S.: theoretical viewpoints from the social sciences applied to issues of socialization, family, culture, media, education, work, politics and economics. Discusses the impact of gender differentiation on personality development and social interaction.

SOC 2280 – Social Science Research 3
Previously SOC 280 (Prerequisite: SOC 1101)

Introduces decision making processes and tools involved in social science research, including surveys, field research, experiments and use of existing sources.

SPAN – Spanish Courses School of Communication, Humanities & Social Sciences

SPAN 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

SPAN 1101 – Beginning Spanish 4
Previously SPAN 101 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Introduces listening, speaking and grammatical skills for students with no previous exposure to Spanish. Includes an online workbook and lab manual.

SPAN 1102 – Beginning Spanish II 4
Previously SPAN 102 (Prerequisite: SPAN1101 or Spanish placement score of 51 or higher)

Continues course of study begun in Span 101: listening, speaking, grammatical skills. Includes an online workbook and lab manual.

SPAN 1103 – Beginning Spanish I Conversation 3
Previously SPAN 103 (Pre- or corequisite: SPAN 1102 or department approval)

Introduces basic conversational skills and practice speaking Spanish.

SPAN 1111 – Heritage Spanish Language 4
Previously SPAN 111 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Designed for students who have been exposed to Spanish in the home and community environments, consider Spanish their heritage language and wish to expand their skills. Emphasizes speaking, reading and grammatical concepts.

SPAN 1112 – Heritage Spanish Language II 4
Previously SPAN 112 (Prerequisite: SPAN 1101 or SPAN 1111)

Continues skills acquisition begun in SPAN 1111. Emphasizes reading and writing with extension of study of grammatical concepts.

SPAN 2096, 2196...2996 – Special Topics 3
(all courses ending in 96 are topics courses)
Previously SPAN 296 (Prerequisite: varies)

Presents various topics. See *Schedule of Classes*

SPAN 2201 – Intermediate Spanish I 3
Previously SPAN 201 (Prerequisite: SPAN 1102 or Spanish Placement score of 71 or higher)

Continues course of study begun in Spanish 1101 and 1102. Emphasizes expansion of conversational, reading and writing skills. Includes an online workbook and lab manual.

SPAN 2202 – Intermediate Spanish II 3
Previously SPAN 202 (Prerequisite: SPAN 2201 or Spanish placement score of 81 or higher)

Reviews grammar with an emphasis on writing skills. Provides conversational activities to increase fluency.

SPAN 2203 – Intermediate Spanish II Conversation 3
Previously SPAN 203 (Pre- or corequisite: SPAN 2202 or department approval)

Emphasizes skills in speaking Spanish.

SPAN 2225 - Spanish for the Bilingual Classroom 3
(Prerequisite: SPAN 2202 or SPAN 2276 or department approval)

Focuses on applications of the Spanish language in school and community settings with an emphasis on the teaching of mathematics, science, social studies and language arts.

SPAN 2375 – Accelerated Beginning Spanish 6
(Prerequisite: RDG 0950 or appropriate placement score or department approval)

Combines SPAN 1101 and 1102 in one term. Recommended for language enthusiasts or those who have had exposure to Spanish either in the home or from previous study.

SPAN 2376 – Accelerated Intermediate Spanish 6
(Prerequisite: SPAN 1102 or SPAN 2375 or department approval)

Combines SPAN 2201 and 2202 in one term. Recommended for language enthusiasts or those who have had exposure to Spanish either in the home or from previous study.

SPAN 2277 – The Art and Skill of Translation 3
Previously SPAN 277 (Prerequisite: SPAN 2202 or department approval)

Introduces the art and profession of translation with a focus on practical translation problems in Spanish. Studies texts from the areas of journalism, law, business and literature for translation from Spanish to English and from English to Spanish. Class conducted in Spanish.

SPAN 2280 – Introduction to Hispanic Literature 3
Previously SPAN 280 (Prerequisite: SPAN 2202 or SPAN 2276 or department approval)

Presents selected readings from literature written in Spanish by Spanish and Spanish-American authors.

Course Subject Code/Course Number – Course Name Credit Hours

SPED – Special Education Courses School of Communication, Humanities & Social Sciences

SPED 2096, 2196…2996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

SPED 2201 – Education of the Exceptional Person 3
Previously SPED 201 (Prerequisite: RDG 0950 + ENG 0950 or appropriate placement scores, see page 12. Corequisite: SPED 2290)

Surveys the characteristics and educational needs of exceptional children, including definition, etiology, characteristics and various educational alternatives for each of the exceptionalities.

SPED 2250 - Exceptionalities and Placement 3
Previously SPED 250 (Prerequisite: Acceptance into the alternative licensure program)

Focuses on the meanings and concepts associated with learning disabilities and the divergent characteristics and needs of individuals with these disabilities and the implications of these in all learning areas including mathematics and science. Builds a thorough understanding of the different exceptionalities and the developmental stages of children to effectively design programs, placements and transitions. Special emphasis will be placed on identifying various service delivery models related to least restrictive environments. Requires a field experience as part of the course.

SPED 2256 – Evaluation/Individual Education Plan and Documentation in Special Education 1-6
Previously SPED 256 (Corequisite: SPED 2250)

Promotes an understanding of the screening, evaluation, eligibility and re-evaluation process of special needs students. Topics covered include standardization, administration and interpretation of criterion referenced, curriculum-based, authentic and informal assessments, observation and checklist/rating scale. Special emphasis is placed on instructional decision making, IEP documentation and record keeping and implementation. Field experience is required as part of this course.

SPED 2258 - Classroom and Behavior Management for Students with Special Needs 3
(Prerequisite: SPED 2250)

Promotes the concept of positive behavior supports and environmental management of behavior. Explores the basic procedures for organizing and managing a classroom and addresses specific behavioral techniques used to foster successful student behavior in the classroom and school setting, including data collection, functional behavior assessment and developing effective behavior intervention plans. Requires field experience as part of the course.

SPED 2260 - Methods and Materials for Special Education 3
(Prerequisite: SPED 2250)

This course presents teaching strategies and materials specific to the curriculum development for and instruction of students with special needs. The course focuses on designing instruction based on student strengths, assessment of learning needs, intervention at the point of breakdown, task analysis and specific instructional materials that support student learning. Field experience is required as part of this course.

SPED 2272 – Reading for Special Learners 3
Previously SPED 272 (Pre- or corequisite: EDUC 2260 + SPED 2250)

Provides an understanding of concepts and procedures for teaching reading to students with special needs. Emphasizes formal and informal reading assessment, effective reading practices, research-based reading programs, oral language development, decoding, strategies, phonemic awareness and vocabulary acquisition. Requires field experience as part of this course.

SPED 2290 – Introduction to Special Education 2
Previously SPED 204 (Prerequisite: RDG 0950 + ENG 0950 or appropriate placement scores, see page 12. Corequisite: SPED 2201)

Provides field experience and seminar in special education settings.

SPED 2390 - Special Education Supervised Field Experience 3
(Prerequisite: department approval)

Provides an advanced supervised fieldwork experience with additional emphasis on collaboration and inclusion. Requires students to meet competencies as defined by the NM Public Education Department through a minimum of 160 contact hours in an approved special education setting. Examines strategies for effective collaboration with parents, colleagues and administrators. Requires an approved application prior to enrollment.

ST – Surgical Technology Courses School of Health, Wellness & Public Safety

ST 1010 – Beginning Surgical Technology I 3
Previously ST 110A (Prerequisite: BIO 1310/1392; or BIO 2210/2292 + BIO 2310/2392; BIO 1410/1492 + COMM 2221 + HIT 1020; or department approval. Corequisite: HLTH 1001 + ST 1092)

Includes scope of practice, technologist role, medical ethics and medical terminology, basic principles of aseptic technique and anatomy and physiology applied to surgical procedures.

ST 1092 – Surgical Technology Lab I 6
Previously ST 111L (Corequisite: ST 1010)

Provides opportunity to practice clinical skills and competencies developed in the classroom. Includes surgical technique (setting up the sterile field, scrubbing, gowning and gloving) and standards of practice. Infection prevention and control will be covered plus care of the surgical patient. (270 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

ST 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See ***Schedule of Classes***.

ST 1510 – Beginning Surgical Technology II 3
Previously ST 110B (Prerequisite: ST 1092. Corequisite: ST 1590 + ST 1592)

Continues Surgical Technology Theory with a focus on an introduction to surgical procedures with a brief history, relevant anatomy and special considerations for general surgery, obstetrics and gynecological procedures, ophthalmic surgery, otorhinolaryngologic surgery, oral and maxillofacial surgery and plastic and reconstructive surgery.

ST 1590 – Surgical Technology Clinical I 8
Previously ST 115C (Prerequisite: ST 1092. Corequisite: ST 1510 + ST 1592)

Applies surgical procedure theory and skills in the clinical setting. (360 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

ST 1592 – Surgical Technology Lab II 2
Previously ST 113L (Prerequisite: ST 1092. Corequisite: ST 1510 + ST 1590)

Continue to provide an opportunity to practice clinical skills and put into practice the special considerations for general surgery, obstetrics and gynecological procedures, ophthalmic surgery, otorhinolaryngologic surgery, oral and maxillofacial surgery and plastic and reconstructive surgery. (90 lab hours per term)

ST 2010 – Surgical Technology III 3
Previously ST 121 (Prerequisite: ST 1592. Corequisite: ST 2090 + ST 2092)

Continues Surgical Technology Theory with a focus on an introduction to surgical procedures with a brief history, relevant anatomy and special considerations for genitourinary procedures and surgery, orthopedic surgery, cardiothoracic surgery, peripheral vascular surgery and neurosurgery.

Course Subject Code/Course Number – Course Name Credit Hours

ST 2090 – Surgical Technology Clinical II 8
Previously ST 124C (Prerequisite: department approval. Corequisite: ST 2010 + ST 2092)

Continues to apply surgical procedure theory and skills in the clinical setting with additional opportunities to include specialty areas such as labor and delivery and GI experience. (360 clinical hours per term)

ST 2092 – Surgical Technology Lab III 2
Previously ST 125L (Corequisite: ST 2010 + ST 2090)

Continue to provide an opportunity to practice clinical skills and put into practice the special considerations for genitourinary procedures and surgery, orthopedic surgery, cardiothoracic surgery, peripheral vascular surgery and neurosurgery. (90 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

ST 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)
Previously ST 296

Explore various topics of interest in the field of Surgical Technology.

SUR – Surveying Courses School of Applied Technologies

SUR 1010 – Introduction to Photogrammetry 3
Previously SUR 185 (Prerequisite: CM 2205)

Introduces the techniques and uses of photogrammetry in surveying and mapping. The geometry of stereo models.

SUR 1015 – Public Lands Survey System Boundaries 3
Previously SUR 192 (Prerequisite: CM 2205)

Detailed study of the U.S. Public Land Survey System Instructions with special emphasis on New Mexico. Sectionalized land subdivision, corner restoration and field surveys.

SUR 1017 – Traffic Control and NSPS Survey Technician Certification prep 2
Previously SUR 195 (Pre- or corequisite: SUR 1015)

Traffic control and safety procedures for surveying and field operations. As well as a review of the "common body of knowledge" that is covered in the Level 1 NSPS Survey Technician certification.

SUR 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

THEA – Theatre Courses School of Communication, Humanities & Social Sciences

THEA 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

THEA 1119 – Introduction to Technical Theatre 3
(Recommended prerequisite: THEA 1122)

Introduces students to hands-on training in all areas of technical play production; stagecraft (set and property construction, painting, lights, costumes, sound). Classes will be held at CNM's partner theatre, The Vortex.

THEA 1120 – Beginning Acting 3
Previously THEA 120 (Recommended prerequisite: THEA 1122)

Provides students with the fundamental physical, vocal and imaginative skills for acting and performing.

THEA 1121 – Beginning Acting II 3
Previously THEA 121 (Prerequisite: THEA 1120 or department approval)

Continues the study begun in THEA 1120 with emphasis on exploration of the text as the source for theatrical decisions and the effects of those decisions in performance

THEA 1122 – Introduction to Theatre 3
Previously THEA 122 (Recommended prerequisite: ENG 1101 or appropriate placement scores, see page 12)

Explores the history and role of theatre past and present including elements that make up a production. Requires students to attend a live theatrical performance.

THEA 1290 – Theatre Practicum 1 1
(Pre- or corequisite: THEA 1119 or department approval)

Complements the hands-on to Technical Theatre training by providing on-the-job technical play production experience. Requires a minimum of 45 hours in a community, professional, or educational theatre production in student's area of interest.

THEA 2096, 2196...2996 – Special Topics 1-6
(all courses ending in 96 are topics courses)

Previously THEA 296 (Prerequisite: RDG 0950 or appropriate placement scores, see page 12)

Presents various topics. See *Schedule of Classes*.

THEA 2222 – Acting for the Camera 3
Previously THEA 222 (Prerequisite: THEA 1120 or department approval)

Introduces students to techniques specific to performing for the camera while they continue to learn and practice performance skills that apply to acting for both the stage and screen.

THEA 2258 – Beginning Screenwriting: Short Form 3
Previously THEA 258 (Prerequisite: English 1101 or appropriate placement scores, see page 12. Recommended prerequisite: THEA 1122)

Provides the critical ingredients of great dramatic writing that are then adapted to a dramatic form manageable for the emerging screenwriter: the narrative short film.

TRDR – Truck Driving Courses School of Applied Technologies

TRDR 1096, 1196…1996 – Special Topics 1-6
(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

TRDR 1101 – Basic Operational Theory 7
Previously TRDR 101 (Prerequisite: MATH 0550 or appropriate placement scores, see page 12; or department approval)

Covers the fundamentals of control systems, hours of service requirements, trip planning, public and employer relations, accident procedures, defensive driving techniques, written commercial driver's licensing needs and state and federal regulations governing the professional truck driver. (4 weeks; 105 theory hours per term)

TRDR 1105 – Class B Basic Operational Theory 6
(Prerequisite: Math 0550 or appropriate placement scores, see page 12 or department approval)

Covers the fundamentals of control systems, hours of service requirements, trip planning, public and employer relations, accident procedures, defensive driving techniques, written commercial driver's licensing needs and state and federal regulations governing the professional Class B CDL truck driver.

TRDR 1292 – Class A Basic Operational Lab 4
Previously TRDR 102L (Prerequisite: TRDR 1101 + CDL learner's permit + DOT physical + DOT drug screen + DMV record)

Covers on-the-driving-range vehicle inspection, basic control, shifting, backing, coupling and uncoupling, hazard perception, visual search, speed and space management, preventive maintenance and handling cargo. Students will receive a minimum of 20 hours behind-the-wheel driving time. (150 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

TRDR 1392 – Class A Advanced Operational Practices 2
Previously TRDR 103L (Prerequisite: TRDR 1101 + TRDR 1292)

Presents skills needed to cope with hazards of the roadway environment. Course sessions are scheduled during the day, evening and night hours and include driving on mountain grades, urban and rural roads, interstates and docking facilities. Students will receive a minimum of 30 hours behind-the-wheel driving time. (75 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

TRDR 1492 – Class B Basic Operational Lab 2
(Prerequisite: TRDR 1105 + Class B CDL Learner's Permit + DOT physical + DOT Drug Screen + DMV record)

Covers-on-the-driving-range vehicle inspection, basic control, shifting, backing, hazard perception, visual search, speed and space management, preventative maintenance and handling cargo. Students will receive a minimum of 10 hours behind-the-wheel driving time. (90 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

TRDR 1592 – Class B Advanced Operating Practices 1
(Prerequisite: TRDR 1105 + TRDR 1492)

Presents skills needed to cope with hazards of the roadway environment. Course sessions are scheduled during the day, evening and night hours and include driving on mountain grades, urban and rural roads, interstates and docking facilities. Students will receive a minimum of 15 hours behind-the-wheel driving time. (45 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

TRDR 2096, 2196...2996 – Special Topics 1–6
(all courses ending in 96 are topics courses)

Previously TRDR 296

Presents in-depth study of problems and the advanced techniques that experts in the trucking industry use to solve them.

TRDR 2097 – Independent Study Variable
Previously TRDR 297 (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

VICA – SkillsUSA/VICA Courses School of Applied Technologies

VICA 2174 – Professional Development 1
Previously VICA 174

Emphasizes development of goals and commitments, personal awareness, time management, organization and communication.

VICA 2175 – Leadership 1
Previously VICA 175

Reviews committee work including agenda setting, parliamentary procedures, team building; participation in community service projects and improvement of communication skills.

VICA 2176 – Career Planning 1
Previously VICA 176

Introduces career information, report writing, conducting interviews, employment skills, communication improvement and interaction with business and industry.

VICA 2178 – Civic Responsibility 1
Previously VICA 178

Covers various community services in planning and carrying out a community project.

VT – Veterinary Technology Courses School of Health, Wellness & Public Safety

VT 1004 – Veterinary Medical Terminology 1

Previously VT 107 (Prerequisite: RDG 0950 + ENG 0950 + MATH 0930; or appropriate placement scores, see page 12)

Introduces veterinary medical word parts and terminology, basic animal science terminology. Includes study of phylogenetic and taxonomic relationships of domestic, laboratory and exotic animals to other biologic kingdoms and humans.

VT 1006 – Veterinary Office Skills 1

Previously VT 105 (Prerequisite: department approval, ENG 1101; MATH 1210 or higher except MATH 2110 and MATH 2096. Corequisite: VT 1004 + 1008 + 1010 + 1012 + 1070)

Covers general office management information including basic bookkeeping and computer skills. This includes; telephone contacts, scheduling and prioritizing appointments, recognizing veterinary emergencies, effective client communication, crisis intervention and grief management, patient admission, history and discharge, maintaining records and filing various types of reports and documents.

VT 1008 – Applied Mathematics for Veterinary Technicians 1

Previously VT 104 (Prerequisite: HWPS Basic Math test. Corequisite: VT 1004 + VT 1006 + VT 1010 + VT 1012 + VT 1070)

Introduces conversions between metric and household systems and common abbreviations used in preparing medications. Presents applications in disciplines such as calculating medication dosages, percentage of weight loss, oral medications, intravenous fluid therapy, solutions and dilutions.

VT 1010 – Introduction to Veterinary Technology 2

Previously VT 101A (Prerequisite: RDG 0950 + ENG 0950 + MATH 0930; or appropriate placement scores, see page 12)

Provides general overview of Veterinary Technology including ethics and professionalism. This course includes identifying breeds and introduces basic medical care techniques used for animals. There is also an emphasis on medical terminology.

VT 1012 – Introduction to Animal Care 2

Previously VT1092 (Corequisite: VT1004 + 1006 + 1008 + 1010 + 1070)

Provides discussion and presentation of animal handling and restraint, with both on campus procedural laboratory time and field trips to various animal facilities, incorporating and enlarging on the introductory theory from VT1010, with opportunities for hands-on experience. (15 hours theory + 45 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

VT 1070 – Animal Comparative Anatomy and Physiology I 3

Previously VT 103L (Prerequisite: BIO 1510/1592; CHEM 1410/1492 or 1710/1792. Corequisite: VT 1004 + 1006 + 1008 + 1010 + 1012)

Comparative anatomy and physiology of canine, bovine, equine, feline species including circulatory, respiratory, digestive, muscular/skeletal, nervous, endocrine, exocrine, urogenital systems. Also includes a brief anatomy and physiology of avian and reptile species. Requires hands on laboratory experience including dissection. (30 theory + 45 lab hours per term)

VT 1096, 1196…1996 – Special Topics 1-6

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

Course Subject Code/Course Number – Course Name Credit Hours

VT 1192 – Supplemental Lab for Veterinary Technology (CR/NC) 1

(Prerequisite: department approval)

Provides participation in supervised learning and review of basic, advanced and specialized practices, including topics in Anatomy and Physiology, Therapeutics, Clinical Pathology. Allows students to review in preparation for VT exit examinations.

VT 1210 – Animal Comparative Anatomy and Physiology II 3

Previously VT 106L (Prerequisite: VT 1012. Corequisite: VT 1272 + 1274 + 1292)

Continues study of comparative anatomy and physiology of canine, bovine, equine, feline species including circulatory, respiratory, digestive, muscular/skeletal, nervous, endocrine, exocrine, urogenital systems. Requires hands-on laboratory experience including dissection. (30 theory + 45 lab hours per term)

VT 1272 – Surgical Technology for Veterinary Technicians 2

Previously VT 112L (Prerequisite: VT 1012. Corequisite: VT 1210 + 1274 + 1292)

Introduces students to surgical procedures, instruments, suture materials, surgical supplies and surgical preps. Overview of anesthesia and emergencies, surgical emergencies and post-surgical care. Includes clinical experience as circulating technician. (15 theory + 45 lab hours per term)

VT 1274 – Radiology for Veterinary Technicians 2

Previously VT 114L (Prerequisite: VT 1012. Corequisite: VT 1210 + 1272 + 1292)

Presents radiography basics including safety measures, x-ray generation, film, film storage, developing solutions and processing, tube rating and exposure charts, control factors, radiographic quality, positioning and contrast media. There will be field trips, demonstration and practice. (15 theory + 45 lab hours per term) **$ Additional fees published in the *Schedule of Classes*.**

VT 1292 – Veterinary Office Skills Lab 1

Previously VT 108L (Prerequisite: VT 1012. Corequisite: VT 1210 + 1272 + 1274)

Continues the study of office procedures in a hands-on laboratory experience. Various aspects of facility management will be presented using traditional and electronic media to prepare the student to effectively contribute to the professional and efficient operation of a veterinary facility. Emphasis will be on veterinary computer software applications, veterinary online services, telephone skills and role-playing in client communication situations.

VT 2010 – Clinical Pathology for Veterinary Technicians I 4

Previously VT 109L (Prerequisite: VT 1292. Corequisite: VT 2015 + VT 2180)

Provides a clinical laboratory setting for students to learn the diagnostic techniques in parasitology, urinalysis, microbiology and cytology including proper collection, preparation and evaluation of specimens. (30 theory + 90 lab hours per term)

VT 2015 – Non-Infectious and Infectious Diseases for Veterinary Technicians 3

Previously VT 110 (Prerequisite: VT 1292. Corequisite: VT 2010 + VT 2180)

Presents overview of common non-infectious and infectious diseases with a special emphasis on zoonotic diseases; isolation concerns; federal regulations, OSHA requirements, occupational safety, the CVTEA policy on safety and necropsy techniques.

VT 2096, 2196…2996 – Special Topics 1-6

(all courses ending in 96 are topics courses)

(Prerequisite: department approval)

Explores various topics of interest in the field of veterinary technology.

VT 2180 – Veterinary Technology Clinical I **4**

Previously VT 120C (Prerequisite: VT 1292. Corequisite: VT 2010 + VT 2015)

Applies theory to practice at veterinary clinics performing hands-on duties including radiology, kennel maintenance, animal handling and restraint, pre- and post- surgical preparation and operating room etiquette, etc. (15 theory + 135 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

VT 2610 – Clinical Pathology for Veterinary Technicians II **4**

Previously VT 207L (Prerequisite: VT 2180. Corequisite: VT 2672 + 2674 + 2690)

Identifies RBC, WBC, PCV, TP, platelets and blood parasites. Students learn how to perform staining techniques, heartworm tests and coagulation tests, how to perform serum analysis and how to use diagnostic inhouse lab kits. (Parvo, FeLv, etc.). (30 theory + 90 lab hours per term)

VT 2672 – Anesthesiology for Veterinary Technicians **3**

Previously VT 203L (Prerequisite: VT 2180. Corequisite: VT 2610 + 2674 + 2690)

Studies anesthesia in large and small domestic animals, exotic and laboratory species. Includes preanesthetic evaluation, principles of fluid therapy related to anesthesia, dosage calculations, induction of anesthesia, patient monitoring and recovery. (30 theory + 45 lab hours per term)

VT 2674 – Applied Therapeutics and Care for Veterinary Technicians I **3**

Previously VT 205L (Prerequisite: VT 2180. Corequisite: VT 2610 + 2672 + 2690)

Presents skills such as venipuncture, medication administration, IV therapy, bandaging and splinting, catheterization techniques, recumbent patient care and blood transfusions. (30 theory + 45 lab hours per term)

VT 2690 – Veterinary Technology Clinical II **4**

Previously VT 210C (Prerequisite: VT 2180. Corequisite: VT 2610 + 2672 + 2674)

Applies theory to practice at clinics, performing hands-on duties that include: specimen collection, urinalysis, parasite evaluation, wound management, administration of medications, IV catheterization, veni-puncture and client education. (180 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

VT 2803 – Pharmacology for Veterinary Technicians **3**

Previously VT 213 (Prerequisite: VT 2690. Corequisite: VT 2810 + 2884 + 2892)

Presents overview of veterinary pharmacology and therapeutics, drug categories and use of drugs, administration methods, pharmacokinetics, prescription labeling and dispensing procedures, calculations, controlled substances including record logs, inventory control and ethical issues relating to handling drugs.

VT 2810 – Veterinary Technology Clinical III **5**

Previously VT 220C (Prerequisite: VT 2690. Corequisite: VT 2803 + 2884 + 2892)

Applies theory to practice at veterinary clinics performing duties that include handling, therapeutics and care of laboratory and exotic animals, surgical assisting and hematological exams. (15 theory + 180 clinical hours per term) **$ Additional fees published in the *Schedule of Classes*.**

VT 2884 – Applied Therapeutics II Avian, Laboratory, Exotic and Large Animals **4**

(Prerequisite: VT 2690. Corequisite: VT 2803 + 2810 + 2892)

Presents recognition, restraint, behavior, surgical assisting and basic care of caged birds, reptiles, amphibians, ferrets, rabbits, rodents and large animals. Includes appropriate sites and routes of medication administration for each species, specimen collection sites and husbandry procedures such as feeding, watering, housing and aquarium care. (45 theory+ 45 laboratory hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

VT 2892 – Dentistry for Veterinary Technicians **1**

Previously VT 2876 (Prerequisite: VT 2690. Corequisite: VT 2803 + 2810 + 2884)

Studies prophylactic technique, charting, identification of normal tooth structure, number of teeth in each domestic species, identification of common dental problems, dental radiography and client dental education. (45 hours lab per term)

WELD – Welding Courses School of Applied Technologies

WELD 1001 – Welding Math I **2**

Previously WELD 102 (Prerequisite: MATH 0750 + RDG 0750; or appropriate placement scores, see page 12; or department approval)

Presents basic arithmetic, fractions and decimals, shop geometry, surface and direct measurements and the metric systems.

WELD 1005 – Welding Blueprint Reading I **2**

Previously WELD 103 (Prerequisite: MATH 0750 + RDG 0750; or appropriate placement scores, see page 12; or department approval)

Covers detail and fabrication drawing interpretation, welding symbols and terminology as applied to the welding industry.

WELD 1020 – Introduction to Metallurgy **2**

Previously WELD 108

Introduces basic science of metals, including structure and welding processes for ferrous and non-ferrous metals. Covers principles of safety and human relations.

WELD 1025 – Welding Blueprint Reading II **2**

Previously WELD 112 (Prerequisite: WELD 1005 or department approval)

Provides instruction in commercial construction and fabrication drawing interpretation and covers detail and assembly drawings related to the welding field and the transferring of measurements from blueprints to a workpiece.

WELD 1030 – Welding Math II **2**

Previously WELD 113 (Prerequisite: WELD 1001 or department approval)

Provides instruction in area, perimeter and volumes of common structural shapes and common layout techniques supported with mathematical applications.

WELD 1060 – Welding Skills **3**

Previously WELD 170

Introduces safety practices, basic tools and equipment, operating procedures and applications of oxyacetylene and shielded metal arc welding (SMAW). (15 theory + 75 lab hours per term)

WELD 1065 – Advanced Welding Skills **3**

Previously WELD 171 (Prerequisite: WELD 1060 or department approval)

Introduces gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW), basic math and blueprint reading. (15 theory + 75 lab hours per term)

WELD 1092 – Oxyacetylene Welding and Cutting **2**

Previously WELD 104L (Prerequisite: MATH 0750 + RDG 0750; or appropriate placement scores, see page 12; or department approval)

Presents safety and use of oxyacetylene equipment. Provides training in thermal cutting torches, fusion welding, welding of alloys and general all-position welding. (75 lab hours per term)

WELD 1096, 1196…1996 – Special Topics **1-6**

(all courses ending in 96 are special topics)

Presents various topics. See *Schedule of Classes*.

WELD 1192 – Introduction to SMAW 2

Previously WELD 106L (Prerequisite: MATH 0750 + RDG 0750; or appropriate placement scores, see page 12; or department approval)

Covers topics in shielded metal-arc welding (SMAW) safety, basic fabrication and repair and customer relations. (75 lab hours per term)

WELD 1292 – Advanced SMAW 2

Previously WELD 114L (Pre- or corequisite: WELD 1192 or department approval)

Presents advanced instruction in shielded metal arc welding (SMAW) with a strong emphasis on safety, work ethics and shop procedures. (75 lab hours per term)

WELD 1392 – Introduction to SMAW Qualifications and Fabrication 2

Previously WELD 107L (Prerequisite: WELD 1292)

Provides instruction in safety and proper procedure for shielded metal arc welding (SMAW) using basic fabrication and repair problems for practical applications. (75 lab hours per term)

WELD 1492 – Introduction to GMAW and Fabrication Lab 2

Previously WELD 115L (Pre- or corequisite: WELD 1192 or department approval)

Covers gas metal arc welding (GMAW) safety techniques. Fabrication and repairs are assigned. Teamwork is stressed. (75 lab hours per term)

WELD 1592 – Introduction to GTAW and Fabrication Lab 2

Previously WELD 116L (Prerequisite: WELD 1192 or department approval)

Emphasizes application of safety and gas tungsten arc welding (GTAW) on carbon steel. Fabrication and repairs are stressed. Customer billing techniques are introduced. (75 lab hours per term)

WELD 1692 – Advanced GMAW and Fabrication 2

Previously WELD 206L (Prerequisite: WELD 1492 or department approval)

Focuses on instruction in advanced carbon steel gas metal arc welding (GMAW), fabrication/repair, problem solving and teamwork. (75 lab hours per term)

WELD 2001 – Advanced Blueprint Reading 2

Previously WELD 202 (Prerequisite: WELD 1005 or department approval)

Covers pipe layout and development, structural print reading and design and layout considerations related to fabrication, material and cost estimating.

WELD 2092 – Qualifications for GMAW 2

Previously WELD 117L (Pre- or corequisite: WELD 1292 + WELD 1492 + WELD 1692; or department approval)

Provides simulated qualification procedures for gas metal arc welding (GMAW) welding in all positions. (75 lab hours per term)

WELD 2096, 2196...2996 – Special Topics 1–6
(all courses ending in 96 are topics courses)

Previously WELD 296 (Prerequisite: department approval)

Enables students to pursue studies in specialized areas. This class may also be taken as an independent or guided study, as a refresher course or to sharpen skills prior to certification or recertification exams.

WELD 2097 – Independent Study Variable

Previously WELD 297 (Prerequisite: department approval)

Focuses on a specific problem while working with an instructor.

WELD 2192 – Pipe Layout and Welding 2

Previously WELD 205L (Prerequisite: WELD 1292 + WELD 1692; or department approval)

Introduces basic pipe welding and layout, materials testing and industrial safety, as well as welding problems. (75 lab hours per term)

Course Subject Code/Course Number – Course Name Credit Hours

WELD 2292 – Advanced GTAW and Fabrication 2

Previously WELD 207L (Prerequisite: WELD 1592 or department approval)

Covers advanced aluminum and stainless steel gas tungsten arc welding (GTAW) and specialized fabrication/repair. Customer problems, teamwork, problem solving and work ethics are stressed. (75 lab hours per term)

WELD 2392 – Qualifications for GTAW 2

Previously WELD 208L (Prerequisite: WELD 2292 or department approval)

Covers simulated qualification procedures for gas tungsten arc welding (GTAW), in all positions. (75 lab hours per term)

WELD 2492 – Project and Fabrication Lab 2

Previously WELD 209L (Prerequisite: WELD 1092 + WELD 1492 + WELD 2192 + WELD 2292)

An all process welding fabrication class to include the use of, shielded metal arc welding, gas metal arc welding, gas tungsten arc welding, oxyacetylene and Plasma cutting. Students will utilize industrial fabrication and repair problems for assigned projects on advanced fabrication equipment. Course also includes training in welding safety and customer relations. (75 lab hours per term)

WELD 2999 – Welding Capstone Course 1

Previously WELD 295 (Prerequisite: department approval)

Preparation of a professional portfolio that demonstrates student's mastery of technical and core competencies.

CODES AND POLICIES

STUDENT CODE OF CONDUCT: 2009-2011

Through its academic offerings and support services, CNM provides the opportunity for learning. Taking advantage of the opportunity is the student's responsibility.

The college gives equal consideration to all applicants for admission. The appropriate facilities and services of CNM shall be available to enrolled students. Any student in good standing with CNM has the right to register for and attend any class for which he or she has met the prerequisites and placement requirements.

Students are expected to be fully acquainted with all published policies and procedures of CNM and will be held responsible for compliance with them. In addition to this handout, policies are available through the Dean of Students Web page at cnm.edu and in some department handbooks, especially in the Health Occupations Department and in some course syllabi.

I. INTRODUCTION

A. Purpose – The freedom of individuals to inquire, study, evaluate and gain new understanding and maturity is essential and must be protected against suppression. Dissent plays a vital part in the role of the college. However, freedoms cannot be protected or exercised in a College that lacks order and stability. Students at all Central New Mexico Community College (CNM) campuses and learning centers have an obligation to uphold the laws of the larger community of which they are part.

The intent of this Code is to ensure that students at CNM neither lose their rights nor escape the responsibility of citizenship. While the activities covered by the laws of the larger community and those covered by CNM's rules may overlap, it is important to note that the community's laws and CNM's rules operate independently and that they do not substitute for each other. CNM may pursue enforcement of its own rules whether legal proceedings are under way or in prospect and may use information from third-party sources (such as law enforcement agencies and the courts) to determine whether the college's rules have been broken. Membership in the CNM community does not exempt anyone from local, state or federal laws, but rather imposes the additional obligation to abide by all of CNM's regulations. It is the personal responsibility of every member of the campus community not only to protect his/her own rights, but to respect the rights of others and to behave in a manner conducive to learning and/or living in an educational environment.

Just as individuals within the community have a responsibility to adhere to a code of prescribed behavior, the institution assumes the obligation of clearly codifying and fairly enforcing the same. CNM upholds the belief that those who do not conform to established standards set forth in this Code of Conduct must be held accountable for their actions. Therefore, the purpose of the Code of Conduct is to inform the student body of the rules and regulations that are essential to the normal operation of CNM.

B. Definition of Student – For the purpose of application of this Code of Conduct, "student" means any person enrolled or taking a course at CNM, which includes all campuses and all other CNM instructional locations and any student organization recognized by CNM. Any person who is not officially enrolled, admitted to or registered with CNM for a particular term but who is, has been or intends to be a student is considered a student. Students who violate the Code of Conduct can expect prompt and deliberate adjudication, whether they choose to be present or remain at CNM. Furthermore, if a decision has been made within the disciplinary process, which impacts a person who is not currently enrolled, he/she still remains subject to the determination upon re-enrollment. Students are responsible for maintaining their current address with CNM. The address on record will be deemed the appropriate address for delivery of correspondence from the Department of Student Life and Student Discipline.

C. Students' Rights and Responsibilities – By enrolling at CNM, a student accepts responsibility for compliance with all local, state and federal laws and with CNM's regulations while retaining the rights guaranteed under the Constitutions of the United States and the state of New Mexico. A student alleged to have engaged in any misconduct shall have the right of due process and appeal as delineated in this Code. The college expects all students to show respect for the rights of others and for authority, to protect private and public property, to carry out contractual obligations and to take responsibility for their own actions and the actions of their guests.

D. Student Organizations – A student organization and its officers and members may be held collectively and individually responsible when violations of this Code by those associated with the organization occur and when such violations are authorized, encouraged, directed, tolerated, supported by or committed on behalf of the organization. For purposes of the interpretation and administration of the Code of Conduct, the term "student" shall also mean "student organization."

II. ADMINISTRATION OF DISCIPLINE

The responsibility of administering the discipline system is delegated by the president of CNM to the vice president of Student Services for non-academic discipline and to the vice president of Academic Affairs for academic discipline. In turn, these officers may delegate authority to other groups or individuals for handling violations of the Student Code of Conduct. All non-academic Student Code activities shall be monitored by the Dean of Students to ensure fairness and consistency. All discipline sanctions imposed college-wide will be reported to the Dean of Students for record-keeping purposes.

The college attempts to handle discipline matters at the lowest possible level by recognizing a variety of hearing officers. Each hearing officer is a CNM official who is an administrator, faculty member or staff member. Hearing officers adjudicate cases when violations are alleged. The hearing officer is authorized to exercise active control over the proceedings in order to elicit relevant information, to avoid needless consumption of time and to prevent the harassment or intimidation of witnesses.

Disciplinary regulations at CNM are set forth in writing in order to give students general notice of prohibited conduct. These rules and regulations should be read broadly and are not designed to define prohibited conduct in exhaustive terms. It is recognized by CNM that students are adults and are expected to obey the law and take personal responsibility for their conduct. A student is therefore subject to two sources of authority: civil–criminal authority and CNM's authority.

Violation of any municipal ordinance, law or regulation of the State of New Mexico or law or regulation of the United States, which may cause harm or endangerment to self or others or somehow compromises the educational mission of the college may result in disciplinary action. The college does not normally take disciplinary action for off-campus violations, but it retains the right to act in special cases. Disciplinary action imposed by CNM may precede and be in addition to, any penalty that might be imposed by an off-campus authority.

When charged with a violation, a student has the right to notice of the violation and an opportunity to be heard. For infractions where suspension, dismissal or expulsion may be imposed, a student will have additional rights as set forth in § IV.C.W, below.

Charged students may decide what and how much information they will provide during a disciplinary conference or hearing. The procedures to be followed in matters of student misconduct are outlined in the following sections.

III. ACADEMIC DISHONESTY

Any student suspected of academic dishonesty will be subject to the investigative and disciplinary process outlined in the Academic Dishonesty Policy found on page 303 of the 2009-2011 CNM Catalog.

IV. NON-ACADEMIC MISCONDUCT: ALL STUDENTS

A. Person and/or Groups Involved in Non-academic Discipline Cases

1. **Dean of Students –** The Dean of Students Office (or his/her designee such as the Director of Student Life and Discipline) will dispose of any non-academic misconduct violations referred by the vice president of Student Services or other CNM officials and also has responsibility for maintaining all student records relating to student non-academic misconduct. Within this capacity, the Dean of Students (or designee) serves as a resource person for administrators, faculty, staff and students to promote consistency throughout the college community in adjudicating cases of student non-academic misconduct. The Dean of Students also can act as a hearing officer and may appoint other hearing officers.
2. **Hearing Committee –** Either the Dean of Students or the Director of Student Life and Discipline may hear discipline issues or may refer the issue to a CNM Hearing Committee. The committee hears non-academic misconduct issues referred to it by the Dean of Students. Two administrative and/or faculty members and one student member are required for each Hearing Committee.
3. **Vice President of Student Services –** The vice president of Student Services will hear any appeals from decisions of the Dean of Students, the Director of Student Life and Discipline, or a Hearing Committee.

B. What Constitutes Non-Academic Misconduct

The following constitute violations for which students and student organizations are subject to disciplinary action. These are not designed to be all-inclusive, but offer examples of the types of prohibited conduct:

Disruption Violations

1. Participation in an unauthorized campus demonstration which disrupts the normal operations of CNM and infringes on the rights of other members of the CNM community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area; intentional obstruction which unreasonably interferes with freedom of movement, either pedestrian or vehicular, on campus.
2. Unauthorized mass action, obstruction or disruption of classes or CNM events, removal or defacement of library or other CNM materials or properties, participation in commercially sponsored solicitation, behaviors that violate federal, state or local ordinances.
3. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other CNM activities, including its public-service function on or off campus, or other authorized non-CNM activities, when the act occurs on CNM premises.
4. Any intentional interference with or obstruction of any institutional activity, program, event or facilities, including the following: any unauthorized occupancy of institution or institutionally controlled facilities or blockage of access to or from such facilities; interference with the right of any institution member or other authorized person to gain access to any institution or institutionally controlled activity, program, event or facilities; or any obstruction or delay of a campus security officer, fire fighter or any institution official in the performance of his or her duty.
5. Obstruction of the free flow of pedestrian or vehicular traffic on CNM premises or at CNM sponsored or supervised functions.
6. Any violation of federal, state or local law not otherwise prohibited herein, if such directly affects CNM's educational function.

Person Violations

1. Actual or threatened physical injury to any person (including self) on CNM owned or controlled property or at a CNM sponsored or supervised function or conduct that endangers the health, safety or personal well being of a person.
2. Engaging in individual or group conduct that is violent (including sexual misconduct, attempted suicide or threats of either), abusive, indecent, unreasonably loud or similar disorderly conduct that infringes upon the privacy, rights or privileges of others or disturbs the peace or the orderly process of education on campus.
3. Hazing, defined as an act which endangers the mental or physical health or safety of a student or which destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in a group or organization.
4. Harassment or abuse directed toward individuals or groups may include at least the following forms: the use or threat of physical violence, coercion, intimidation and verbal harassment and abuse. Harassment and abuse may be discriminatory. Although all forms of harassment and abuse – both discriminatory and non-discriminatory – are equally prohibited, CNM's commitment to non-discrimination means that discriminatory harassment may be punished more severely than non-discriminatory forms of harassment.
5. Sexual abuse, including but not limited to sexual harassment, coercion and threats or use of force.
6. Any actual or threatened non-consensual sexual act.
7. Harassment or acts of insensitivity or intolerance toward individuals/groups, including groups defined by race, creed, national origin, disability, sexual orientation and veteran status.
8. Verbal or written abuse, which is likely to cause another person humiliation, stress, psychological harm or which is harassing in nature.
9. Public display of literature, films, pictures or other material that, depicts or describes sexual conduct in a patently offensive way and lacks serious literary, artistic, political or scientific value.

Property Violations

1. Attempted or actual theft of and/or damage to property of CNM or property of a member of the CNM community or other personal or public property.
2. Any graffiti or other act of misuse, vandalism, malicious or unwarranted damage or destruction, defacing, disfiguring or unauthorized use of property belonging to the institution including, but not limited to, fire alarms, fire equipment, elevators, telephones, institution keys, library material and/or safety devices, walls, floors and ceilings.

Falsehoods/Identification Violations

1. Forgery, counterfeiting, alterations or misuse of any CNM record, document or identification card.
2. Knowingly furnishing false information to CNM personnel or member of any hearing board acting in performance of their duties or the failure to provide CNM personnel with adequate information upon request.
3. Making a false report concerning a fire, bomb or other emergency.
4. Failure to possess at all times a valid CNM Student ID and/or failure to present the ID to CNM officials upon proper request. Failure to comply with directions of CNM officials, faculty, staff or law enforcement officer acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so.
5. Intentionally and falsely accusing a CNM employee or another student of a wrongdoing.

Safety Violations

1. Unauthorized use, possession or storage of any weapon or explosive (including fireworks) on CNM premises or at CNM sponsored activities.
2. Tampering with fire extinguishers, fire alarm boxes or smoke or heat detectors anywhere on CNM property.
3. Creating a fire, safety or health hazard.
4. Ejecting any objects from windows, roofs or balconies of CNM buildings.
5. Students are not permitted on the roofs of CNM buildings.

Computer Violations

1. Unauthorized entry into or alteration of any CNM computer records or violation of the CNM Technology Use Policy.
2. Violation of the New Mexico Computer Crimes Act, including intentional and unauthorized access, alteration, damage, copying or destruction of any computer system or data.
3. Theft or abuse of computer time, including but not limited to:
   a. Unauthorized entry into a file, to use, read or change the contents or for any other purpose.
   b. Unauthorized transfer of a file.
   c. Unauthorized use of another individual's identification and password.
   d. Use of computing facilities to interfere with the work of another student, faculty member or CNM official.
   e. Use of computing facilities to send obscene, abusive, or threatening messages.
   f. Use of computing facilities to interfere with normal operation of the CNM computing system.

Entry/Use Violations

1. Entry into or use of any building, facility, room or other CNM property/grounds without authorized approval. This also includes the unauthorized possession or use of CNM keys, lock combinations or other access codes.
2. Entering or attempting to enter any social event or other event without proper credentials for admission (e.g., ticket, identification card or invitation).
3. Unauthorized use of CNM telephones for long-distance calls.

Legal Violations

1. Unlawful possession, use, distribution or sale of any narcotic or dangerous drug as defined by the statutes of the state of New Mexico.
2. Violation of federal, state or local law on CNM premises or at CNM sponsored or supervised activities.
3. Possession or consumption of alcoholic beverages in contradiction of state law and/or CNM policy.
4. The violation of local, state or federal criminal statutes shall be in violation of this code, whether or not such violation is prosecuted by public officials. CNM may refer such violations to appropriate law enforcement agents.
5. The use or possession of equipment, products or material used or intended for use in manufacturing, growing, using or distributing any drug or controlled substance.
6. Participation in illegal gambling activities on CNM owned or controlled property or at a function identified with CNM.
7. Embezzling, defrauding or procuring any money, goods or services under false pretenses.

Financial Violations

1. Failure to make satisfactory settlement for any debts to CNM.
2. Issuing a check on campus knowing that it will not be honored when presented for payment.

General Violations

1. Violation of published CNM policies, rules or regulations.
2. Soliciting or selling in violation of the solicitation policy.
3. Having an animal on campus in violation of CNM policy.
4. Dispersing litter in any form onto the grounds or facilities of the campus.
5. Unauthorized use of cell phones, pagers and other electronic equipment in classrooms and laboratories.
6. Unauthorized use of sirens, loudspeakers and other sound amplification equipment.
7. The use of roller blades, skateboards, or scooters on CNM property.
8. Smoking inside CNM buildings.
9. Parking bicycles outside of designated areas.
10. Drinking and eating in classrooms, laboratories and libraries.
11. Bringing children to classes, labs or other instructional activities or to judicial affairs hearings.

Student Discipline Violations

Abuse of the student disciplinary system, including but not limited to:

1. Failure to obey the summons of the Dean of Students, a disciplinary body, or other CNM official.
2. Falsification, distortion or misrepresentation of information before a hearing officer or committee.
3. Disruption or interference of the orderly conduct of a disciplinary proceeding.
4. Initiation of a disciplinary proceeding knowingly without cause.
5. Attempting to discourage an individual's proper participation in or use of the disciplinary system.
6. Attempting to influence the impartiality of a member of a disciplinary body prior to and/or during the course of the disciplinary proceeding.
7. Harassment (verbal or physical) and/or intimidation of a member of a disciplinary body prior to, during and/or after a judicial proceeding.
8. Failure to comply with the sanction(s) imposed under the Student Code.

9. Influencing or attempting to influence another person to commit an abuse of the disciplinary system.

C. Non-academic Discipline Process

All alleged violations of non-academic rules and regulations contained herein will be referred to the Dean of Students' Office. Any alleged violation should be reported as soon as possible after the violation occurs. Upon violation of any of the provisions of this Code of Conduct during class or other CNM activity, CNM faculty and staff may remove the student from the class or other CNM activity for the remainder of that class/activity period and shall promptly notify the Dean of Students as to the action taken and the reason(s) therefore. Upon submission of the alleged violation to the Dean of Students' Office, the following procedures will apply.

1. For behavior for which a sanction other than suspension, dismissal or expulsion may be imposed, after referral to the Dean of Students or his/her representative and investigation by the Dean or representative (at his/her discretion), the Dean (or representative) will provide:
   - Oral or written notice of the charges against the student and
   - An opportunity for the student to admit or deny the allegations in conference with the Dean or his/her representative. If the student denies the allegations, the student is entitled to an explanation of the evidence against the student and will be given an opportunity in the conference to rebut the charges.
   - As a result of the investigation and conference with the student, any of the following actions may be taken:
   - The charges may be dismissed as unfounded or for lack of evidence;
   - The student may admit responsibility for violating the Code of Conduct and a sanction will be imposed; or
   - The Dean of Students or representative will deem the student responsible for Code of Conduct violations, based on a preponderance of the evidence and an appropriate sanction will be imposed.
2. For behavior for which suspension, dismissal or expulsion may be imposed, after referral to the Dean of Students and after any investigation by the Dean or his/her representative, the Dean or representative will establish a hearing date to occur as soon as practicable, or within ten (10) days of imposition of any interim suspension and will provide:
   a. Written notice of the charges against the student;
   b. Written notice of the date, time and place of hearing;
   c. An opportunity for the student to personally participate in the hearing and to admit or deny the charges against the student.

   If the student admits the charges, discipline will be imposed.

   If the student denies the charges, the student will be entitled to:
   i. An explanation of the evidence against the student;
   ii. The right to question witnesses in a manner determined by the Dean of Students or the Hearing Committee;
   iii. The right to examine, in advance of the hearing, documentation submitted relating to the charges;
   iv. The right to present a defense at the hearing;

   The student may call his/her own witnesses and present relevant information or documentation;

   The student may have legal counsel, or other advisor, present at the hearing, but such counsel or advisor may not participate in the hearing.
   v. A tape recording of the hearing shall be made. The tape recording is CNM property.
   d. As a result of the investigation and hearing, one of the following actions may be taken:
   - The charges may be dismissed as unfounded or for lack of evidence;
   - The student may admit responsibility for violating the Code of Conduct and appropriate sanctions may be imposed; or the Hearing Committee will deem the student responsible for Code of Conduct violations based upon a preponderance of the evidence and appropriate sanctions may be imposed.

   e. The student will be notified of the discipline imposed, either orally following the hearing or sent in writing within five (5) working days of the hearing.

D. Non-Academic Discipline Appeal Process

Students receiving a discipline decision from the Dean of Students or a Hearing Committee may request an appeal. Any such request must be made in writing to the vice president of Student Services within three (3) working days after notification of the decision.

1. Contents of the Appeal Request.

The appeal request must include:

a. The name of the individual/organization requesting the appeal;

b. The disciplinary action being appealed and the date the disciplinary action took place;

c. The grounds for the requested appeal. The appeal must be based on one or more of the following grounds:
- Procedural or prejudicial error was committed. The specific errors alleged must be stated;
- The facts upon which the decision was based included inaccurate information. The inaccurate information appealed from must be stated;
- Specific information presented at the hearing/disciplinary conference is objectionable. The reason for the objection must be stated (i.e. why specific information should not have been considered);
- Information not offered at the hearing/ disciplinary conference is now available. The reason why the information was not offered during the original hearing/disciplinary conference must be stated;
- The sanction imposed is excessive or inappropriate. The reason for believing this must be stated.

2. Decision on Appeal:

Upon review of the appeal, the vice president of Student Services, or his/her designee, may take any of the following actions:

Deny the appeal request.

Grant the appeal request and refer the matter to the Dean of Students for reopening of the hearing/conference to allow reconsideration of the original decision and/or the sanctions imposed. In the event of such referral, the vice president of Student Services (or his/her designee) will provide a written rationale for the referral, in accordance with one or more of the grounds for appeal detailed above.

Except as required to explain the basis of new information, an appeal shall be limited to review of the tape recording of the most recent official hearing and supporting documents.

Any review of the sanction(s) in a non-academic discipline process may not result in more severe sanction(s) for the accused student/ organization. On review, the sanction may remain as originally determined or may be reduced.

V. DISCIPLINARY ACTIONS AND SANCTIONS

A. Student Sanctions

The following list is not designed to be all-inclusive, but offers examples of the more severe sanctions that may be imposed upon an individual student for infraction of regulations.

1. Disciplinary Probation – This sanction is an official warning that the student's conduct is in violation of CNM regulations or local, state and/or federal laws. Students placed on disciplinary probation are deemed to be not in good standing with CNM. The duration of the probationary period and conditions imposed, shall be set by the Hearing Officer or Hearing Committee and shall be in proportion to the seriousness of the misconduct. Duration will be at least 30 days, but may be extended indefinitely. Depending on the circumstances and at the discretion of the hearing officer(s), additional stipulations may be enforced. These additional stipulations may be, but are not limited to, withholding of transcript or degree; suspension of rights and privileges; suspension of eligibility to participate in official extracurricular activities; restitution; and referral for counseling. During the probationary period, reported violations of the Code of Conduct or conditions of the probation will result in further sanctions which will be more severe than like sanctions for students not on probation. This action may include, but is not limited to, extension of the probationary period, the addition of other restrictions or conditions to the probationary agreement, suspension, dismissal, expulsion and notation on the student's transcript.

   A student who has been placed on indefinite disciplinary probation may petition to have the probation lifted. This petition will not be acceptable if submitted sooner than one calendar year from the date the probation began. Students must petition through the Dean of Students Office. The Dean of Students or the CNM Discipline Committee reviews the petition and makes a recommendation to the vice president of Student Services or designee, whose decision is final.
2. Disciplinary Suspension – Disciplinary suspension is the disenrollment of a student from CNM for a defined period of time. Most suspensions will last a minimum of one full term. However, the length of the suspension shall be at the discretion of the Hearing Committee. Students may reenter CNM at the conclusion of the suspension.
3. Dismissal – Dismissal is the disenrollment of a student for an indefinite period of time and includes a "minimum timeframe." In most cases the minimum timeframe is one year, which means the student may not petition to reenter CNM for at least one year. Extended minimum timeframes may also be defined. The length of the dismissal shall be at the discretion of the Hearing Committee. Students seeking to reenter CNM after completion of the minimum timeframe may do so only by consent of the vice president of Student Services. Requests for reentry must be submitted in writing.
4. Expulsion – Expulsion is the disenrollment of a student whereby the student is not eligible for readmission to CNM.

B. Interim Suspension

In certain circumstances, the Dean of Students or designee may impose an immediate, short-term suspension pending further investigation and hearing. In such cases, the Dean or representative will establish a hearing date to occur as soon as practicable and in any event within ten (10) working days of imposition of any interim suspension.

1. Interim suspension may be imposed only 1) to protect the safety and well-being of members of the CNM community or preservation of CNM property; 2) to protect the student's own physical or emotional safety and well-being; or 3) if the student poses a definite threat of disruption to or interference with the normal operations of CNM.
2. During the interim suspension, the student shall be denied access to the campus (including classes) and/or all other CNM activities or privileges for which the student might otherwise be eligible, as the Dean of Students may determine to be appropriate.

C. Student Organization Sanctions

The following are possible sanctions that may be imposed upon a student organization for infraction of regulations:

1. Disciplinary Probation – This sanction is an official warning that the organization's conduct is in violation of CNM regulations or local, state and/or federal laws. Organizations placed on disciplinary probation are deemed to be not in good standing with CNM. The duration of the probationary period and conditions imposed shall be in proportion to the seriousness of the misconduct. Duration will be at least 30 days, but may be extended indefinitely. Depending on the circumstances and at the discretion of the Dean of Students, additional stipulations may be enforced. These additional stipulations may be, but are not limited to, suspension of rights and privileges, suspension of eligibility to participate in official extracurricular activities and restitution for damages.

   During the probationary period, reported violations of the Code of Conduct or conditions of the probation will result in further sanctions which will be more severe than the sanctions for student organizations not on probation. These sanctions may include, but are not limited to, extension of the probationary period, the addition of other restrictions or conditions to the probationary agreement, or suspension or termination of CNM recognition/charter.

   The organization may return to a status of good standing with CNM at the conclusion of the probationary period, assuming all conditions have been satisfied and upon gaining approval from the Dean of Students.
2. Suspension of CNM Charter or Recognition – This sanction may be imposed when the organization's conduct is in violation of CNM's regulations or local, state and/or federal laws. Pursuant to this sanction, the organization's charter or recognition with CNM, along with all privileges afforded a recognized student organization is withdrawn for a specified period of time, pursuant to the procedure outlined in § IV.C, supra. Any suspension of charter or recognition imposed will last a minimum of one full calendar year. As with disciplinary probation, additional conditions may be attached and further disciplinary action may result if conditions are not met. Reinstatement of any organization's charter/recognition can only be granted by the Vice President of Student Services after the period of suspension when all conditions of the suspension have been met.
3. Termination of CNM Charter or Recognition – This sanction may be imposed when the organization's conduct is deemed to be in violation of CNM's regulations or local, state and/or federal laws, pursuant to the procedures outlined in § IV.C, supra. This sanction will result in the immediate withdrawal of the organization's charter or recognition with CNM, along with all privileges afforded a chartered/recognized student organization. The organization will not be eligible for reinstatement of its charter or recognition for a minimum of five (5) years. Reinstatement of an organization's charter or recognition may only be granted by the vice president of Student Services

VI. INTERPRETATION

Any question of interpretation regarding the Student Code of Conduct shall be referred to the Dean of Students or his/her designee for final determination.

VII. AMENDMENTS AND/OR REVISION TO THE CODE OF CONDUCT

Recommendations for changes related to the non-academic discipline process will be referred to the Dean of Students. The Dean of Students reviews the Code of Conduct as needed and recommends changes to the vice president of Student Services.

VIII. STATEMENT OF LIMITATIONS

No student or student organization shall be subject to disciplinary procedures due to alleged violation of CNM's regulations unless procedures are initiated within one year from the time the alleged misconduct occurred or was made known to the Dean of Students, whichever occurs later. The one-year period of limitation, as referred here, will apply only while the student is enrolled at CNM. If the disciplinary procedures cannot be completed for reasons beyond the control of CNM, a time limitation will not be imposed.

The most recent version of the Student Code of Conduct can be found on the Dean of Students website at cnm.edu/deanofstudents/.

ACADEMIC DISHONESTY POLICY

I. INTRODUCTION

As a college of higher learning, CNM is concerned that all participants in the learning environment conduct themselves with a high level of academic honesty and integrity. It is expected that students will conduct themselves at all times in a manner that supports and affirms these fundamental values.

As much as it is the students' responsibility to conduct themselves according to accepted values of honesty and integrity, so too is it the institution's responsibility to provide a fair and equitable process for addressing behavior that falls outside of what has been defined as acceptable. Accordingly, this policy has been developed in order to have a fair and consistent process for dealing with issues of academic dishonesty should they arise. The policy identifies examples of behaviors or actions that might be classified as academic dishonesty and articulates the procedural steps that are followed should academic dishonesty be alleged.

II. DEFINITIONS

Academic Dishonesty – Academic Dishonesty is any behavior on the part of a student that results in that student's or any other students' giving or receiving unauthorized assistance in an academic exercise or receiving credit for work which is not their own. Such acts include, but are not limited to:

- **Cheating –** Use of material, information, or study aids not permitted by the instructor during tests, quizzes, or other graded in-class activities. The prohibition, restriction, or permission regarding the use of such aides might be specifically stated in the test instructions (e.g., calculator use), but it need not be if their prohibition is a reasonable academic expectation for any such graded activity (e.g., use of a textbook, class notes, or a "cheat sheet" during a test). The cheating might be either premeditated (e.g., preparation and use of "cheat sheets," securing a copy of the test beforehand) or opportunistic (e.g., looking at another student's test paper).
- **Plagiarism –** Use of another person's or of a group's words or ideas without clearly acknowledging the source of that information, resulting in their false representation as one's own individual work. More specifically, to avoid plagiarizing, a student or other writer must give credit when he/she uses:
  - another person's idea, opinion, or theory
  - any facts, statistics, graphs, drawings—any pieces of information—that are not common knowledge
  - quotations of another person's actual spoken or written words
  - paraphrases of another person's spoken or written words
  - another person's data, solutions, or calculations without permission and/or recognition of the source, including the act of accessing another person's computerized files without authorization

  Plagiarism may be either deliberate or unwitting; that is, it is the responsibility of a college student to know what constitutes plagiarism so that ignorance is not a legitimate defense against a charge of plagiarism.
- **Falsification/Fabrication –** Intentional and unacknowledged invention or alteration of any data, incidents, quotations, or citations in an academic exercise.
- **Unauthorized Collaboration –** Intentional sharing of information or working together in an academic exercise when such collaboration is not approved by the instructor.
- **Facilitating Academic Dishonesty –** Intentionally or knowingly helping or attempting to help another to violate any provision of this policy on academic dishonesty.
- **Academic Sanction –** Any penalty assessed by an instructor, possibly in consultation with the academic dean's office and/or the Dean of Students office, imposed solely in response to a student's academic misbehavior and including, but not limited to such actions as lowering a grade, assigning extra work, or imposing a re-test.
- **Disciplinary Sanction –** Any sanction imposed by the Dean of Students office, which may be in addition to an Academic Sanction and may include disenrollment from a course, suspension from campus, expulsion from the college, or other administrative action.

(For more information regarding disciplinary sanctions, see the Student Code of Conduct on page 298 of this catalog.)

III. PROCEDURES

Initial Steps Taken By Instructor

If an instructor suspects a student has committed an act of academic dishonesty, the instructor should document what has occurred (e.g. what was observed or discovered that led to this belief) and must meet with the student. The goal of the meeting is twofold: (1) to inform the student of the allegation and review the evidence with the student; and (2) to provide the student with the opportunity to respond to the allegation by presenting his/her own evidence or by commenting on the allegation(s) and the evidence for it. The meeting with the student should occur as soon after the incident as possible (preferably, immediately after the class session in which the alleged incident occurred).

Academic Sanctions

Once the student has been given the opportunity to respond to the allegations, the instructor must determine whether academic dishonesty has occurred (based on a preponderance of the evidence —a more likely than not standard). If the instructor determines that academic dishonesty has occurred the instructor may either: 1) impose an academic sanction up to and including a "0" on the assignment or test; or 2) contact the Dean of Students to coordinate a more severe penalty for the offense (e.g. an "F" for the course, or removal from a program – in the case of

limited entry programs such as exist in Health, Wellness & Public Safety occupations). At this point, the academic dean should be notified of the instructor's attempt to seek a more severe penalty in coordination with the Dean of Students office.

In either case, the student must be notified by the instructor (either in person at the initial or subsequent meeting, over the phone, or by e-mail) regarding the instructor's decision and the sanction that will be imposed.

Centralized Reporting

Once the decision making and sanctioning are complete, the incident must be documented and reported to the Dean of Students Office and to the appropriate school office using the Academic Dishonesty Incident Report Form (available in the schools or in the Dean of Students office). The Dean of Students Office will be responsible for the following:

1. Generating an official CNM letter to the student summarizing what occurred in the academic dishonesty incident and what sanction was imposed as well as notifying the student regarding what additional actions will be taken (in the case of repeat offenders or those already on probation), or what further actions would be taken should another incident occur. In addition, the letter will provide information about the student's right to appeal.
2. Maintaining a centralized record of the incident within the Dean of Students Office so that, if future incidents are reported, patterns of behavior can be identified and sanctioned more severely.

Non-Academic Disciplinary Sanctions

When the report is received by the Dean of Students Office, current records will be checked to determine whether: 1) the student has had any previous incidents of academic dishonesty; or 2) the student is on disciplinary probation for any other previous disciplinary incidents. If either of these conditions exists, the student will be called into the Dean of Students Office and will be subject to disciplinary sanctions in addition to the academic sanction imposed by the instructor (per the disciplinary procedures outlined in the Student Code of Conduct). The additional disciplinary sanctions that may be imposed include disenrollment from the course, suspension from campus, expulsion from the college and other administrative actions.

Appeal Processes

Appeal of an Academic Sanction

The student may appeal any academic dishonesty determination or sanction by putting the appeal request in writing and submitting it to the Dean of the appropriate school within one week after receipt of the Dean of Student's notification letter. The appeal must include the following:

1. The name of the individual requesting the appeal.
2. The name of the instructor who imposed the academic sanction and the information regarding the course (course name, course number, section number).
3. Description of the sanction that was imposed.
4. The grounds for the appeal. These grounds may include, but are not limited to, the procedure that was followed, the factual basis for the determination and/or the severity of the sanction.

After reviewing the appeal, the academic Dean may take any of the following actions:

1. Deny the appeal request.
2. Grant the appeal request and refer the matter back to the instructor to amend the original decision or sanction.

When a decision has made regarding the appeal, the academic Dean will notify the Dean of Students regarding the outcome of the appeal.

Appeal of a Non-Academic Disciplinary Sanction

The student may appeal any disciplinary sanction per the guidelines found in the Student Code of Conduct under section IV, D, titled, "Non-Academic Discipline Appeal Process" (found on page 301 of this catalog).

INFORMATION TECHNOLOGY USE POLICY (CONDENSED VERSION)

Note: Policies are subject to change. The information below is a condensed version of the complete Information Technology Use Policy. Please see cnm.edu for the complete and most current version of this policy and its administrative directives.

I. PURPOSE

A. CNM promotes and provides Information Technology resources that enhance educational services and facilitate college operations. These resources are shared by students, faculty, staff and the public. All persons using these systems share the responsibility for seeing that they are used in an effective, efficient, ethical and lawful manner. The aim of this policy and its administrative directives, is to safeguard equipment, networks, data and software that are acquired and maintained with public funds as well as define the acceptable use of these resources.

B. Users of CNM Information Technology resources or those who interface with CNM enterprise systems and networks are subject to this policy, in addition to local, state and federal laws relating to copyrights, security and other issues regarding electronic media. Any violation of this policy, the Employee Handbook, or the Student Handbook may result in the removal of access privileges and possible disciplinary action.

C. This policy applies to all individuals and groups utilizing college-owned Information Technology resources, whether individually controlled or shared, stand-alone or networked. In addition, this policy applies to personally-owned resources brought to the college for work or classroom purposes that utilize CNM's systems and networks.

II. AGREEMENT

A. All users of CNM's enterprise systems and networks must read and comply with the Information Technology Use Policy. By using any of these systems and networks, users accept the terms of this policy.

B. Area directives may be established to further support appropriate information technology use to preserve CNM's systems and networks and better serve the community. Users agree to become familiar with and abide by all applicable directives.

III. ACCOUNTS

A. Each individual is responsible for the use of their CNM account. It must not be used by others.

B. Student accounts are kept active until the beginning of the next fall or spring term. At that time, if the user is no longer a registered student, the account is locked.

C. Information contained in the account will be kept until the end of the term in which the account was locked and then either retained or deleted at the college's discretion.

IV. RIGHTS

A. CNM's information technology resources are owned and operated by CNM. These resources include systems, networks, software/licenses, facilities, accounts and information. CNM reserves all rights to these resources, including termination of service without notice should an individual violate the Information Technology Use Policy.

B. CNM cannot protect individuals against the existence or receipt of material that may be offensive to them.

V. PRIVILEGES

A. Access to CNM's systems and networks is a privilege granted to authorized users, not a right. Access privileges are offered to users so they have full use of the technology available for academic purposes. Access to any system or network may be denied, at any time, without notice as a protective measure to ensure CNM's system and network integrity or compliance with legal mandates.

B. Users may not, under any circumstances, transfer or confer these access privileges to other individuals.

VI. RESPONSIBLE USE

A. Prudent and responsible use of Information Technology resources begins with common sense and includes respecting the rights and privacy of other users.

B. The user agrees to follow proper computer etiquette when using CNM's information technology systems and networks.

C. The user agrees to refrain from any activity that would be considered an Information Technology use violation as defined in this policy.

VII. PRIVACY

A. CNM makes every reasonable effort to ensure the security of its systems and networks. While attempts have been made to ensure privacy of all accounts by assigning individual PINs and passwords, CNM offers no guarantee or representation that any account, electronic mail, or voice mail is private. Users should also note that CNM's systems are not guaranteed to be secure, nor are they connected to a secure network.

B. CNM recognizes the privacy rights of individuals, as guaranteed by the Family Educational Rights and Privacy Act of 1974 (FERPA) and Governing Board Policy. In certain circumstances the USA Patriot Act of 2001 may supersede students' privacy rights under FERPA.

C. By virtue of having a CNM network account, the user grants specific permission to CNM and CNM reserves the right to access all information stored on its systems.

D. Before any routine maintenance inspection is performed on a user's account, they are notified in advance and in writing, where practical. In the case of emergency inspections, or a discipline situation, the user is notified within three business days following the inspection of the reason the inspection occurred.

VIII. VIOLATIONS

A. To maintain the integrity of CNM's Information Technology systems and networks it is necessary to identify common violations that can be addressed quickly to maintain effective technology use at CNM. Common violations are noted below and are identified as either minor or major. This list is not intended to be all inclusive.

B. Minor Violations

- Failure to comply with unit, lab, division rules and guidelines.
- Chat room use that is unrelated to CNM instruction or operations.
- Use of internet games that are unrelated to CNM instruction or operations.
- Bringing food or drink into a lab setting.
- Use or installation of unauthorized software onto CNM-owned computers.
- Activities that are not academic or class related that could impact network or system performance (i.e., streaming videos, internet radio...)
- Abusing or misusing hardware, including but not limited to, keyboards, mice, etc.

C. Major Violations

- Refusal to discontinue unacceptable activities identified as minor violations.
- Unauthorized entry into (hacking) accounts or files for purposes of reading, using, transferring, or altering their contents, or for any other purpose.
- Viewing, accessing, or transmitting images, text, websites, or other material that is intimidating, fraudulent, hostile, harassing or offensive on the basis of sex, race, color, religion, national origin or disability.
- Sale, possession (in public) and/or exhibition of obscene material, is illegal and violates local, state and federal law as well as CNM policy.
- Transmitting images, text, websites or other material that is threatening, harassing, malicious, defamatory, or in which the origination is deliberately misleading.
- Accessing or transmitting child pornography.
- Copyright infringement, software piracy, audio/video recording piracy. This is a violation of federal law in addition to violating CNM policy. (See the Copyright section of this document for more information).
- Unauthorized use of CNM's Information Technology resources for commercial purposes.
- Interfering with, degrading, or damaging the performance of any CNM voice or data network including crippling, bombing, or spamming.
- Misappropriation of data, copyrighted materials, including computer software.
- Tapping of network transmissions, including wireless transmissions (e.g., running network analyzers without authorization from the Computer Information Technology department (CIT)).
- Sharing of passwords, acquiring another user's password, attempting to increase the level of access to which a user is authorized, or depriving other authorized users access to any CNM system or network.
- Use of knowledge of passwords, or of loopholes in systems, to damage resources, obtain extra resources, take resources from another user's account or file space, or otherwise make use of resources either on or off campus for which proper authorization has not been given.
- Publishing to the CNM website without appropriate approval.
- Performing any activity that is considered to be a threat to national security.
- Fraud, pyramid schemes, federal computer security violations.

IX. COPYRIGHT

A. Any information, including but not limited to text, software, graphics, video, audio and photographs may not be copied into, from or by, placed on any CNM facility, system, or network, except in accordance with the license. Software may only be copied in order to make back-up copies, if so licensed. The number of copies and distribution of copies may not be done in such a way that the number of simultaneous users exceeds the total number of licensed copies unless otherwise stipulated in the purchase agreement.

B. According to copyright law, a person who makes an unauthorized copy is potentially liable to the owner for actual damages, profits, court costs and attorney fees. In addition, in certain cases the user may be criminally prosecuted and subject to a fine and imprisonment.

X. ENFORCEMENT

A. Upon receipt of a complaint or if a student user is suspected of violating this policy, all relevant information will be turned over to the Dean of Students Office for investigation and possible disciplinary action.

B. As part of the investigation conducted by the Dean of Students Office, a user's account may be locked and/or inspected. Following the inspection, the user will be notified in writing within 3 (three) business days that an inspection has taken place.

SUBSTANCE ABUSE

CNM has committed its resources to creating an environment that fosters learning. Such an environment depends in part on the physical, emotional and social well-being of CNM students and staff. Abuse of alcohol and drugs impairs work and academic performance, poses a threat to the health and safety of the CNM community and undermines the learning environment. CNM is committed not only to maintaining a drug-free campus but also to helping students and staff solve drug- and alcohol-related problems.

CNM POLICY ON ILLEGAL DRUGS AND ALCOHOL

This policy covers all property and facilities owned, used, leased or controlled by CNM and any other site where CNM business is being conducted, including motor vehicles.

Controlled substances are defined in Schedules I through V of the Controlled Substances Act, 21 U.S.C. 812 and implementing regulations, 21 CFR 1308.11-08.15. Controlled substances include, but are not limited to, marijuana, hashish, cocaine (including crack), amphetamines, heroin, PCP, hallucinogens, anabolic steroids, certain prescription drugs and certain controlled substance analogs. Possession, use, sale or trafficking of controlled substances and glues is prohibited and punishable as a crime.

Illegal uses of alcohol include, but are not limited to, serving, buying or drinking alcohol by a minor; assisting a minor or an intoxicated person to get alcohol; selling alcohol without a license and driving while under the influence. Possession of alcohol is prohibited on all CNM properties and in CNM vehicles.

This policy is not intended to supersede or negate any existing policies on substance abuse, student or employee discipline or any additional requirements imposed on CNM or its students, instructors or staff by federal or state law.

The unlawful manufacture, distribution, dispensing, possession or use of controlled substances or alcohol on CNM property or as part of any of its activities by any member of the CNM community is strictly prohibited. Being on campus or engaging in campus-related activities while under the influence of alcohol or controlled substances is also strictly prohibited.

As a condition of continued registration and enrollment, all students shall abide by this policy. Violation of this policy shall result in disciplinary action, up to and including expulsion.

Students and employees in the Truck Driving program are subject to random drug testing under federal law.

CNM's response to any violation of this policy may include, as a total or partial alternative to disciplinary action, a requirement that the employee or student participate satisfactorily in an approved substance-abuse treatment or rehabilitation program as a condition of continued employment or registration/enrollment. Any employee engaged in the performance of work under a federal contract or grant is required, as a condition of employment, to notify his/her supervisor within five days if he/she is convicted of a criminal drug statute violation occurring in the workplace. The supervisor shall notify the CNM administration. Failure of the employee to notify the supervisor shall be grounds for disciplinary action.

In recognition of the dangers of substance abuse in the workplace, CNM shall maintain alcohol and drug-free awareness programs to inform members of the campus community about issues and risks of substance abuse. Counseling and treatment referral resources are listed below.

LEGAL SANCTIONS AND HEALTH RISKS

Penalties for even the most minor violations of the New Mexico Liquor Control Act can include fines of up to $300, confiscation of property and imprisonment for up to 7 (seven) months. More serious violations carry greater penalties, with larger fines and longer imprisonment.

Penalties for illegal drug use can include significant fines and imprisonment. Penalties for illegal sale of drugs are greater and may include property confiscation.

Alternative penalties for illegal drug and alcohol use may also include mandatory community service.

Violation of laws by a foreign national may result in deportation.

Driving or using machinery after drinking or using drugs creates the risk of injury or even death for the user and others. Penalties include criminal charges, up to and including homicide, as well as loss of the driver's license and impoundment of the vehicle.

In drug-related cases a court may permanently suspend eligibility for federal benefits, including student financial aid. Moreover, a criminal record can seriously hurt education and career opportunities.

Excessive alcohol consumption and abuse of illicit drugs can lead to certain types of cancer, pathological changes in the liver, brain, heart and muscle which can lead to disability and death, as well as addiction, birth defects, shortened life span, stomach ulcers, phlebitis, varicose veins and other health problems.

Alcohol and drugs are also factors in homicide, assaults, rapes, suicides and family and date violence.

Alcohol is significantly involved in all types of accidents: motor vehicle, home, industrial and recreational.

Unintended pregnancies and sexually transmitted diseases are often associated with alcohol and other drug abuse. Intravenous (IV) drug use is a high-risk factor for AIDS, which at present is a fatal disease.

Substance abuse negatively impacts on personal, work and academic relationships.

CAMPUS AND COMMUNITY RESOURCES

Any member of the CNM community who is concerned about a substance-abuse problem (their own or a colleague's) can receive free, confidential assistance at the Counseling Center. A clinical therapist is available to perform a primary assessment on a case-by-case basis.

CNM employees will be referred for assistance through the Employee Assistance Program. Students may receive counseling on campus or be referred to the most appropriate community agency.

Other community resources include:

AGORA, UNM Crisis Center (277-3013); Al-Anon Information Service (262-2177); Alcoholics Anonymous (266-1900); All Indian Pueblo Council; Alcoholism Program (884-3820 ext. 25); Narcotics Anonymous (260-9889); National Council on Alcoholism & Drug Dependence (256-8300); Rape Crisis Center (266-7711); UNM Center for Alcoholism, Substance Abuse and Addictions (CASAA) (768-0150); UNM Mental Health Center; Psychiatric Crisis Unit (272-2920 or 272-2800); Suicide Crisis-Emergency Telephone (247-1121);Vet Center Readjustment Counseling (766-5900)

SEXUAL HARASSMENT

Sexual harassment constitutes an unacceptable and punishable offense at CNM.

Unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct of a sexual nature constitute sexual harassment when:

- submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, grade or other classroom experience;
- submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting such individual; or
- such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile or offensive working or learning environment.

Sexual harassment is distinguished from voluntary sexual relationships by the introduction of the elements of coercion and threat. Sexual harassment can involve a supervisor or employee and a student, or an instructor and a student, or two students. The three most common factors in sexual harassment are:

- unwelcome or offensive behavior;
- one-sided versus mutual interest; and
- an offender in a position of authority over the victim.

Sexual harassment can be:

- as blatant as the offer of a promotion, a grade or other academic reward in return for sexual favors; or
- as subtle as constant efforts to change a professional or academic relationship into a personal and social one.

Sexual harassment can include (but is not limited to):

- persistent and offensive personal jokes and comments; or
- unwanted physical contact (touching, patting, bumping or pinching); or
- displaying sexually oriented pictures.

As a student, you can do a great deal on your own to prevent or stop sexual harassment. The signals or feedback you give to another person can be very important. You should examine your own behavior and the reactions you get from others. If you believe you are being sexually harassed:

- Say "no" and mean it. Make clear to the offender that the behavior is unacceptable to you.
- Speak directly. Say something like this: "I'd like to keep our relationship strictly academic (or professional)."
- Take action even if you are uncertain about whether sexual harassment is taking place.

WHERE TO GO FOR HELP

Students with questions or complaints about sexual harassment involving another student should contact the Dean of Students in the Main Campus Student Services Center, telephone (505) 224-4342. Sexual harassment matters concerning a student and a CNM employee should be brought to the Human Resources Department, A Building, Main Campus, (505) 224-4600.

MILITARY DUTY POLICY

This Student Policy on Military Duty shall apply to currently enrolled students at CNM who are 1) serving on active duty in the military and who receive orders transferring them to a duty station outside of the CNM District or prohibiting their continued enrollment at CNM or 2) are members of the New Mexico National Guard and/or reserves and are called to active duty. In such cases, CNM will follow the procedures listed below upon representation of official military orders by the affected student.

1. A student withdrawing from CNM prior to 80 percent completion of a term of any length will be withdrawn from class with no grade or enrollment penalties imposed. A full refund of tuition will be processed.
   - To withdraw the student must submit a copy of their official military orders for deployment and the CNM Military Deployment Form. This form may be obtained in the Registration Office at any CNM location and online at cnm.edu.
   - Once the Registration Office receives and processes the withdrawal form, the student then contacts the Cashiers Office at either the Main or Montoya Campus regarding a full refund of tuition. Tuition is refunded according to the original method of payment.
2. A student withdrawing after completion of 80 percent of a term of any length may receive full credit for each course in which he/she is enrolled provided the instructor certifies a grade of C or better for the course at the date of formal withdrawal. A student with a grade lower than a C will be withdrawn with no grade or enrollment penalties imposed and a full refund will be processed. After 80 percent completion of a term, a student must choose either a grade assignment or a tuition refund.
   - The student must confirm their choice by submitting a copy of their official military orders for deployment and the CNM Military Deployment Form. This form may be obtained in the Registration Office at any CNM location and online at cnm.edu.
   - If the student chooses a final grade for each course, the Registration Office will notify each instructor of the student's deployment. The instructor will record a final grade as of the date the Registration Office receives notification or the date of deployment, whichever is sooner.
3. A student scheduled to graduate, who has completed 80 percent of the work in courses in which he/she is enrolled for that term, may be certified for graduation provided these courses would complete his/her degree or certificate requirements and student will receive full credit for the courses.

Students with questions regarding this policy should contact the Registration Office at any CNM location or call (505) 224-3214.

Note: Annual military reserve training is not considered active duty and therefore, is ineligible for the CNM Military Duty Policy.

DISCIPLINARY POLICY AND PROCEDURES

Individuals may be denied admission to the institution; enrollment in courses and/or programs; and participation in certain CNM sponsored activities if it is determined that such access is likely to pose a serious threat to the safety of the applicant and/or members of the CNM community. Such determination would be made on a case by case basis by a review board under the guidance of the Dean of Students.

The Dean of Students will convene a review committee to decide if a student should not be admitted or should be withdrawn from CNM, an academic program, a course, or a CNM sponsored activity if information is available which suggests such admission, enrollment or participation is likely to pose a serious threat to the safety of the applicant and/or members of the CNM community. This committee would be facilitated by the Dean of Students. A minimum of five (5) regular members must be in attendance for a decision to be made. The Review Committee will consist of eight (8) members as defined below:

- Director or Associate Director of Academic Advisement and Career Development
- Director of Special Services
- Director of Risk Management
- Director or a Manager from Enrollment Services
- Two Deans or Associate Deans named by the Executive Vice-President of Academic Affairs
- Director or Manager from Security
- Dean of Students

The standard to be used by the review committee in making a determination: Would a reasonable person looking at the preponderance of information available to the committee determine that it is more likely than not that this person poses or will pose a serious threat to the safety of the CNM community? Review committee decisions will be made by a majority of the members present.

If the review committee decides to deny admission or to withdraw a student from a course, a program, a sanctioned activity, or from CNM, the Dean of Students will notify the student and the Director of Enrollment Services of the decision.

If a student or prospective student wants to appeal the decision of the committee, the process will be the same as in the Student Code of Conduct (See Appeal Process, page 301).

RULES GOVERNING CLASSROOMS/LABS

Children on Campus

Children (or other non-students) are not allowed to accompany adults to class or lab. All children who are under age 15 and are on CNM's campus, must be accompanied by an adult at all times.

Electronic Devices

When students are in class or a lab, cellular telephones, pagers and beepers must be turned off or switched to silent or vibration mode. Electronic entertainment devises are to be turned off and headphones removed.

Dress

Students are expected to dress appropriately on campus at all times.

Smoking

Smoking is NOT allowed at any time in any CNM building. If smoking outside a building, do not congregate on walkways or in front of doors, do not block access to buildings and please be courteous of the rights of non-smokers on campus.

Animals on Campus

ADA and CNM policy allows service animals accompanying persons with disabilities to be on CNM campuses. Service animals must be registered as such through the Security Office and must be on a leash at all times.

Pets (domestic animals kept for pleasure or companionship) are not permitted in CNM facilities.

For further information regarding animals on campus, please refer to the Service Animal Policy (in the employee handbook) at cnm.edu.

STUDENT COMPLAINT PROCESS

Occasionally, a student will encounter a problem on campus that he or she does not know how to resolve. When this happens, students should always try to work out the problem by first discussing it with those most involved with the issue. Dealing with concerns in the most direct and honest fashion should always be the first step toward resolution. It is quite astounding how many issues are settled or problems resolved, when a student makes an appointment with a faculty or staff member and calmly and honestly communicates their frustrations or concerns.

If however, an issue or problem still exists, there is a formal complaint process at CNM that students may initiate. All formal complaints must be put in writing using the official CNM Student Input Form. These forms are available in hardcopy in the department or schools, in the Dean of Students Office, or online.

When initiating a formal complaint, the following steps should be followed:

1. The student should first attempted to resolve the issue by speaking directly with the individual(s) or office(s) involved.
2. Complete and submit a CNM Student Input Form (these should be submitted online or to the department or school or Dean of Students).
3. When the complaint is received it will be forwarded to the appropriate individual to review and address the issue.
4. After your concern has been addressed, you will receive a letter from the appropriate department documenting the receipt and review of your complaint.

For more information on the student complaint process please check the CNM website where you will also find the Input Forms to be completed when you need to file a formal complaint.

Special Note: Sometimes CNM students find they are particularly pleased with how something has been handled for them, how they were assisted by a particular staff member, the positive experience they had in a specific class, or some other outstanding thing that happened to them at CNM. As a student you should know that the same Input Form that is used to lodge a concern can also be used to provide a written compliment or note of appreciation. In this case, the process for submitting the form is the same as for filing a formal complaint.

DISABILITY DISCRIMINATION COMPLAINT PROCEDURE

I. SCOPE

This procedure applies to all Central New Mexico Community College (CNM) students.

II. POLICY STATEMENT

In accordance with the Americans with Disabilities Act (ADA), Section 504 of the Rehabilitation Act of 1973 and other applicable law, CNM takes appropriate action to ensure that its programs and services are readily accessible to qualified individuals with disabilities. No qualified individual with a disability shall, on the basis of the disability, be excluded from participation in, be denied the benefit of, or otherwise be subjected to discrimination related to any of the institution's programs or activities.

This procedure assists the college in carrying out its responsibilities in administering and enforcing applicable federal and state laws and university policies related to nondiscrimination on the basis of disability and investigation of complaints. Any student who feels he or she is the victim of discrimination on the basis of disability, should follow the complaint procedures outlined below. The college reserves the right to investigate any allegation of discrimination based on disability.

Retaliation. CNM also investigates and resolves allegations of retaliation against individuals who have raised claims of discrimination based on disability or who have cooperated in an investigative process in some manner. Retaliation is an adverse action taken against an individual as a result of a complaint being filed or after the individual has cooperated with an investigative process. Retaliation is prohibited whether or not the charged party prevails in the original allegation of disability discrimination. No agent, employee or student of the college may harass, coerce, intimidate, or discriminate against an individual who has filed a complaint or participated in a complaint resolution process. Charges of retaliation will be treated as separate and distinct from the original charges and allegations, and will be investigated by the college.

III. FILING PROCESS

Complaints must be filed with the Dean of Students Office. Complainants will be asked to complete a form describing the alleged discrimination. Assistance will be arranged, if needed.

A complaint should be filed within 180 calendar days of the most recent incident of discrimination. CNM will consider requests to extend this period where the complainant can show he or she needed additional time due to circumstances beyond his or her control.

The complainant will meet with a representative from the Dean of Students Office to discuss options (informal, formal) for proceeding with resolution of the complaint. The complainant is not required to follow the informal procedure before filing a formal complaint. The respondent (the individual accused of discrimination) will be notified of the complaint within 10 working days after it is filed.

Options

Informal. The Dean of Students may offer the complainant the opportunity to voluntarily discuss allegations and concerns with the respondent (the accused) and attempt to resolve the situation. The complainant is not required to do this to move forward with a formal complaint. The respondent is reminded that CNM expects all to adhere to our ADA policies. Respondent is put on notice that behavior has been questioned, and informal resolution sought, if possible. If informal attempts to resolve the situation are not successful, the complainant may pursue a formal complaint. The Dean of Students Office reserves the right to investigate any allegation brought forward if it finds sufficient information to indicate a serious or continuing violation of the ADA/ Sec. 504 policy.

Witnesses or other evidence may be presented to the Dean of Students by the complainant or respondent.

Formal. If the complainant elects to file a formal complaint, a full investigation is conducted by the Dean of Students Office complete with written findings to be given to the complainant and the respondent. If a violation is found, the Dean of Students Office will recommend corrective actions. These may include a directive to stop any ongoing discrimination or retaliation; disciplinary or other corrective action against the respondent or others; relief for the complainant to remedy the effects of the discrimination or retaliation; and any other action considered necessary to ensure that the discrimination will not be repeated.

Appeal. The findings of a formal complaint investigation may be appealed in writing to the Director of Human Resources by the complainant or respondent within 10 working days of receipt of the Dean of Students' determination. A party may appeal a decision based on discovery of new evidence previously unavailable or a significant irregularity in the procedural process which could affect the outcome of finding. The appellant should be as specific as possible in setting out the basis for appeal; general dissatisfaction with the decision will not be sufficient. The determination of the Director of Human Resources is final.

At any time, prior to filing a complaint, or while a complaint proceeding is in progress, a complainant may file their complaint with an appropriate external agency. A complete list of agencies, along with contact information, is available from the Human Resources Office, 525 Buena Vista SE, Albuquerque, NM 87106. Phone (505) 224-4600.

Time Line for Investigation Process

The Dean of Students Office will complete its investigations as expeditiously as possible. The investigation shall normally be completed within 45 working days from the filing of a formal complaint, including written notification of the parties of the outcome of the investigation. In extraordinary circumstances, the Dean of Students Office may extend this time for a reasonable period. All parties will be notified if such an extension is necessary. Many factors can interfere with an investigative fact-finder's commitment to complete a determination promptly, including unavailability of witnesses or the complexity of the issues involved. The Dean of Students Office will maintain contact with the Complainant and Respondent throughout the course of the investigation to keep them up to date on the process.

IV. CONFIDENTIALITY

The Dean of Students Office takes any allegation of discrimination, harassment, and/or retaliation seriously and is committed to protecting the integrity of the investigation process including confidentiality and the due process rights of all individuals. Note that all those involved (the respondent, the complainant, and the witnesses) have privacy interests. Therefore, outside the scope of the investigation, all parties are cautioned not to publicize or divulge the nature of the proceedings, or the identity of those involved.

V. RIGHT TO ADVISOR

The complainant and the respondent each have the right to bring an advisor to any investigative meeting. If either party chooses to exercise this option, he or she shall submit the name of the advisor in writing to the Dean of Students Office at least 72 hours prior to a meeting. If either the complainant or the respondent's advisor is a person degreed or qualified in law, the Dean of Students Office must be notified by the investigator.

VI. RESPONSIBILITIES AND JURISDICTION OF THE DEAN OF STUDENTS OFFICE

Consistent with federal and state laws and university policies related to nondiscrimination, the Dean of Students Office investigates complaints of unlawful discrimination and/or harassment on the basis of physical or mental disability. The Dean of Students Office will make an adequate, reliable and impartial investigation of such complaints at CNM and render a written determination following such investigations.

Transfer of Function

If a complaint, whether informal or formal, is directed against the Dean of Students Office, the functions assigned to that Office by these procedures will transfer to the Human Resources Department. If a complaint, whether informal or formal, is directed against the Human Resources Department, the functions assigned to the Department by these procedures will transfer to the Office of the President or the President's designee.

GLOSSARY, INDEX AND MAPS

GLOSSARY

Abbreviated Schedule: Classes begin at 10:30 a.m. Classes before that time are canceled. Information is given on the telephone hotline, (505) 224-4SNO and on local media.

Academic Transfer Courses: all arts and sciences courses and specific career and technical courses designed both meet CNM program requirements and transfer to other colleges and universities. A list of academic transfer course is available at cnm.edu.

Academic Year: A school year consisting of a fall, spring and summer term.

Accreditation: Formal recognition of an educational institution that maintains standards qualifying its graduates for further study or for professional practice. CNM is accredited to grant certificates and associate degrees by The Higher Learning Commission; individual programs are accredited or approved by professional organizations.

Accuplacer: Reading, Sentence Skills (English) and Math exams used to determine appropriate course placement for students.

Achievement Coach: Achievement coaches are staff in each of the schools that assist and guide students toward achieving their educational goals by identifying resources and services that support students.

Adding Courses: Registering for courses (see Registration).

Admission: The process of applying and being accepted by CNM (as opposed to registering for a particular course).

Adult Basic Education: Free courses to prepare for the GED, or to improve the skills of English as a Second Language speakers, offered in the School of Adult & General Education.

Advisor: A CNM staff member who provides program information and checklists, handles credit transfer issues, assists students with setting and meeting academic goals and provides referrals to other departments.

Articulation Agreement: A list of community college courses, which are equivalent to corresponding courses at four-year colleges and universities. In other words, a transfer school, such as UNM or NMSU, has agreed, in writing, that these courses will fulfill many or all of the lower-division requirements for a bachelor's degree.

Arts and Sciences Courses: Courses that support degree and certificate programs in the arts and sciences areas and are generally transferable to other degree-granting institutions as freshman and sophomore electives or requirements. At CNM, arts and sciences courses are numbered 1101 and above with the following subject codes: ANTH, ARTH, ARTS, ASTR, BIO, CHEM, COMM, CST, ECON, ENG, FREN, GEOG, GNHN, HIST, HUM, JOUR, MATH, MUS, NUTR, PHIL, PHYS, PSCI, PSY, RLGN, SOC, SPAN, THEA .

Associate Degree (AA, AS, AAS): The formal name for a two-year degree, though it may take longer to obtain this degree. The associate degree requires a minimum of 60 credits, with at least 12 credits earned in residence at CNM.

Audit: A grade option/grade that reflects a student's enrollment in a course but does not carry course credit or count for enrollment verification, cannot be used to meet pre- or corequisite requirement and does reflect competency in a course.

Blended Course: A course which is delivered online, but requires one or more campus visits during the term.

Career and Technical Courses: Courses that are the core of most certificate and degree programs at CNM and are designed to prepare students for entry-level jobs. At CNM, career and technical courses (previously called occupational courses) are courses numbered 1101 and above with subject codes not listed as arts and sciences courses (see Arts and Sciences Courses).

Certificate: Awarded upon completion of a prescribed series of courses. A certificate indicates skill competency in many technical and career areas. A Certificate of Achievements is 1-15 credits; A Certificate of Completion is 16-59 credits.

Challenge Exams: Used to establish credit for CNM courses.

Clinical: a "work based" learning environment incorporated within a course of study. These are "unpaid" positions.

College and Career Bound: A high school-aged student enrollment program in which eligible high school and home schooled students can enroll at CNM and earn college credit.

Community College: A postsecondary institution like CNM, which offers adult education, college preparation and courses/programs (certificates and degrees) in technical and occupational fields of study as well as for transfer to four-year schools.

Concentration: An area of emphasis or specialty within a program of study (major).

Cooperative Education (Co-op): a structured educational "paid" work experience related to a student's academic goals. Co-op is a partnership among the students, educational institutions and employers, with specified responsibilities for each party.

Corequisite: A course, which is either recommended or required to be taken in combination with another course. Often a lab is the corequisite for a lecture: CHEM 1510/1592, for example. A student who drops one of a pair of corequisite courses must drop the other as well.

Course Fee (Program Fee): A charge for materials, equipment and supplies for a course, listed in the *Schedule of Classes* and the CNM Catalog.

Course Load: The number of credit hours enrolled in each term.

Course Repeat Limit: The number of times a course may be repeated.

Credit Hour: A unit of measurement for courses. At CNM, each hour of credit in a lecture class requires a minimum of 750 minutes of instruction per term; each hour of credit in a laboratory class requires at least 1,500 minutes. For transfer purposes, one CNM credit hour generally equals one semester credit hour at other institutions.

Credit/No Credit: CR/NC, a grade option in some CNM courses, replacing the traditional letter grade.

CRN: Course reference number, assigned to each course in the *Schedule of Classes* and used in registering.

Developmental Courses: Courses numbered below 1000 that prepare students to enter arts and sciences or career and technical courses.

Distance Learning: Courses offered 50-100% via the internet, correspondence or videotape.

Dropping Courses: Officially withdrawing from a class through the online registration system or at a registration office.

Elective: A program credit requirement that allows the student to choose from a list of approved courses or disciplines.

English as a Second Language (ESL): Courses for students who are non-native speakers of English.

Freshman: A student who has completed fewer than 30 credits at CNM.

Full-time Status: A schedule of 12 or more credit hours per term.

GED: General Education Development diploma considered equivalent to a high school diploma.

Grade Point Average (GPA): An educational standard computed by multiplying the number of credit hours of a course by the points assigned to the course grade, then dividing by the total number of hours. Point values are: A=4, B=3, C=2, D=1, F=0.

Graduation: Official confirmation of the completion of a certificate or degree program. Graduation is dependent on the approved completion of all program and institutional graduation requirements and is approved by the Office of the Registrar.

Hybrid Course: A course in which 50% of the course activity takes place online, and 50% is in a classroom or lab.

Independent Study: Student works with the instructor on specific topics directly related to the course or program of study. The meeting time is arranged between the student and the instructor.

Internship: a structured educational "unpaid" work experience related to a student's academic goals. Internship is a partnership among the students, educational institutions and employers, with specified responsibilities for each party.

Learning Communities: Learning communities offer students integrated curricula that emphasize connections among students, faculty and disciplines.

Major: A specific program of study consisting of a specific group of courses designed to provide intensive education or training in a specialized area and leading to a certificate and/or associate degree.

***my* CNM:** CNM's online information portal that houses online enrollment-related systems and information.

Non-Degree Student: A student who has not yet chosen a major or who does not wish to earn a certificate or degree.

Online Course: A course in which all of the course activity takes place online.

Part-time: A schedule of fewer than 12 credit hours per term

Permission to Enroll: The special approval, by a school, for a student to enter a restricted course and/or to waive a course pre- or corequisite.

Petition: A process in which students request and are selected to enroll in specialized courses. Selection is based on established and publicized criteria.

PIN: A student's personal identification number used to access CNM's secure online registration system.

Practicum: a college course, often in a specialized field of study that is designed to give students supervised practical application of previously studied theory. These are "unpaid" positions.

Prerequisite: A specific requirement that must be successfully completed before a student may enroll in a course.

Program: See major.

Program Director: Instructor who provides in-depth information about a certificate or degree program.

R: Thursday in the *Schedule of Classes* and online registration system.

Recommended Prerequisite: A course or other prerequisite which is strongly suggested for successful completion of a course but is not required (See prerequisite).

Registration: The process of signing up for courses, including paying tuition and fees.

Registration Fee: A processing fee assessed to each student for the term in which he/she is registering for classes.

Repeating courses: A course may be repeated up to three times, with each enrollment appearing on the transcript.

S: Denotes Saturday in the *Schedule of Classes* and online registration system; a U denotes Sunday.

Schedule of Classes: A printed list of classes to be offered in the upcoming term, including CRN, day/time and location, with information about admission, payments and registration.

Snow Day: In the event of dangerous weather conditions, CNM may close or operate under an abbreviated schedule. Information regarding closures and delays is communicated on a telephone hotline, (505) 224-4SNO, on local television and radio stations, and through the CNM website.

Sophomore: A student who has completed 30 or more credits at CNM.

Substitution: An approved exchange of courses and credit because the competencies and/ or learning objectives of the substituting course are comparable, but not equivalent, to those of the required course.

Term: A portion of an academic year. CNM has three terms a year: fall, spring, and summer.

Topics Course: Topics courses complement CNM's regular course offerings in a subject area or program. They may emphasize subject matter or content introduced in other courses, content at a more advanced level or content that is not covered in other CNM courses. Topics courses may change from term to term.

Traditional Grade: Letter grade (A, B, C, D or F) used in calculating the grade point average and recommended for courses in the major and for courses to be transferred to another institution. For details on grade options, see page 41 of catalog.

Transcript: An official educational record of a student's enrollment at a college, showing courses attempted and completed, grades and grade point average and graduation.

Transfer Credits: Credits for courses taken at another institution and counted toward a CNM certificate or degree or taken at CNM and applied toward a degree at another institution.

Tuition: A charge for CNM courses based on course type, credit hours and the student's instate tuition classification.

U: Denotes Sunday in the *Schedule of Classes* and online registration system; an S denotes Saturday.

Waiver: An approved exemption from a course because the competencies and/or learning objectives of the course have already been attained due to prior training, educational or work experience.

Withdrawal: Dropping all courses and ceasing to be a CNM student.

wpm: Words per minute (keyboarding).

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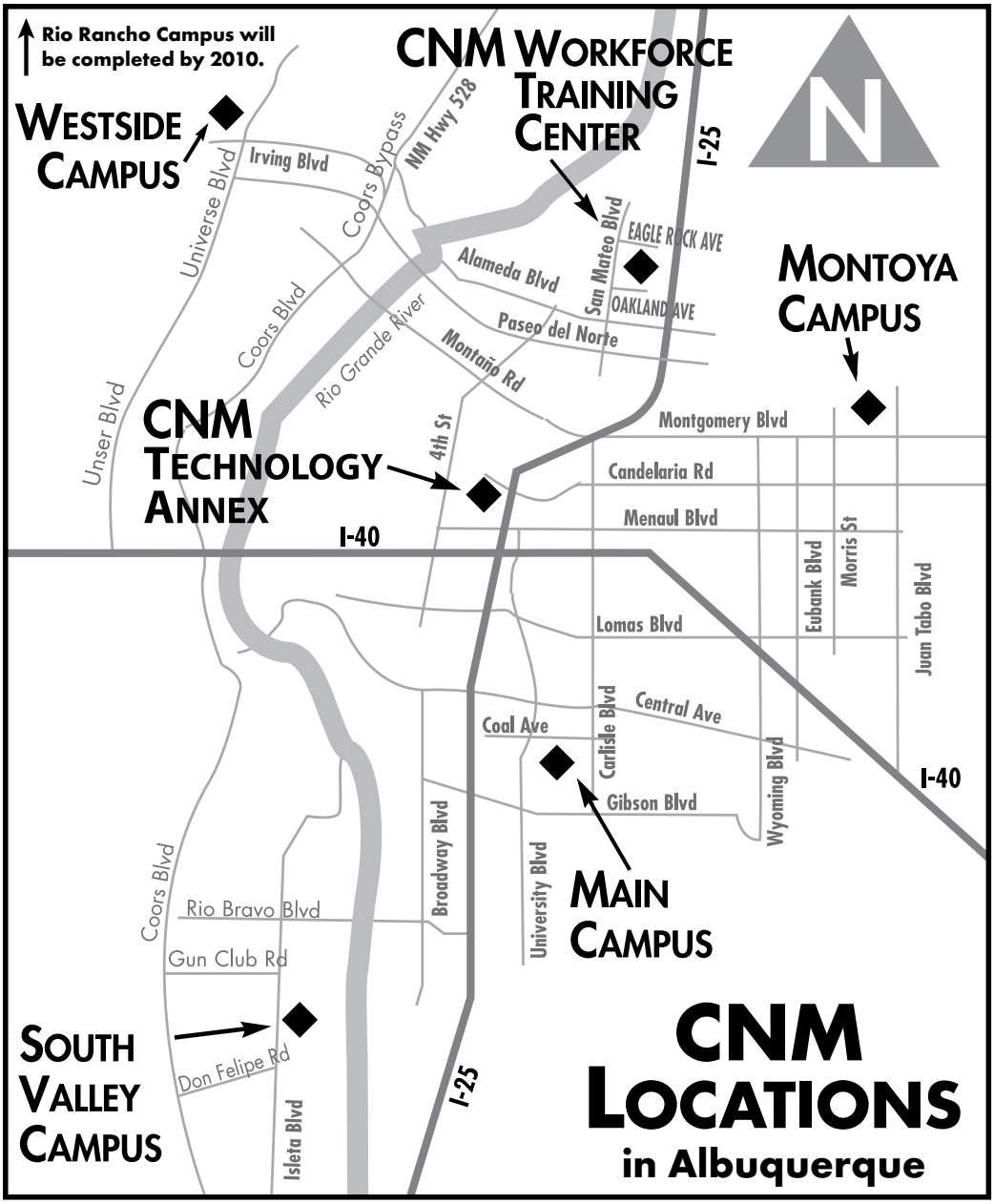

CNM MAIN CAMPUS
Administration/Mailing Address
525 Buena Vista SE
Albuquerque, NM 87106
(505) 224-3000
Student Services/Information
900 University SE
Albuquerque, NM 87106
(505) 224-4342

CNM JOSEPH M. MONTOYA CAMPUS
4700 Morris NE
Albuquerque, NM 87111-3704
(505) 224-5551

CNM SOUTH VALLEY CAMPUS
5816 Isleta SW
Albuquerque, NM 87105
(505) 224-5000

CNM WESTSIDE CAMPUS
10549 Universe NW
Albuquerque, NM 87114
(505) 224-5301

CNM WORKFORCE TRAINING CENTER
5600 Eagle Rock Avenue NE
Albuquerque, NM 87113-1711
(505) 224-5200

CNM RIO RANCHO CAMPUS
Coming in 2010

CNM MAIN CAMPUS
Administration/Mailing Address
525 Buena Vista SE
Albuquerque, NM 87106
(505) 224-3000
Student Services/Information
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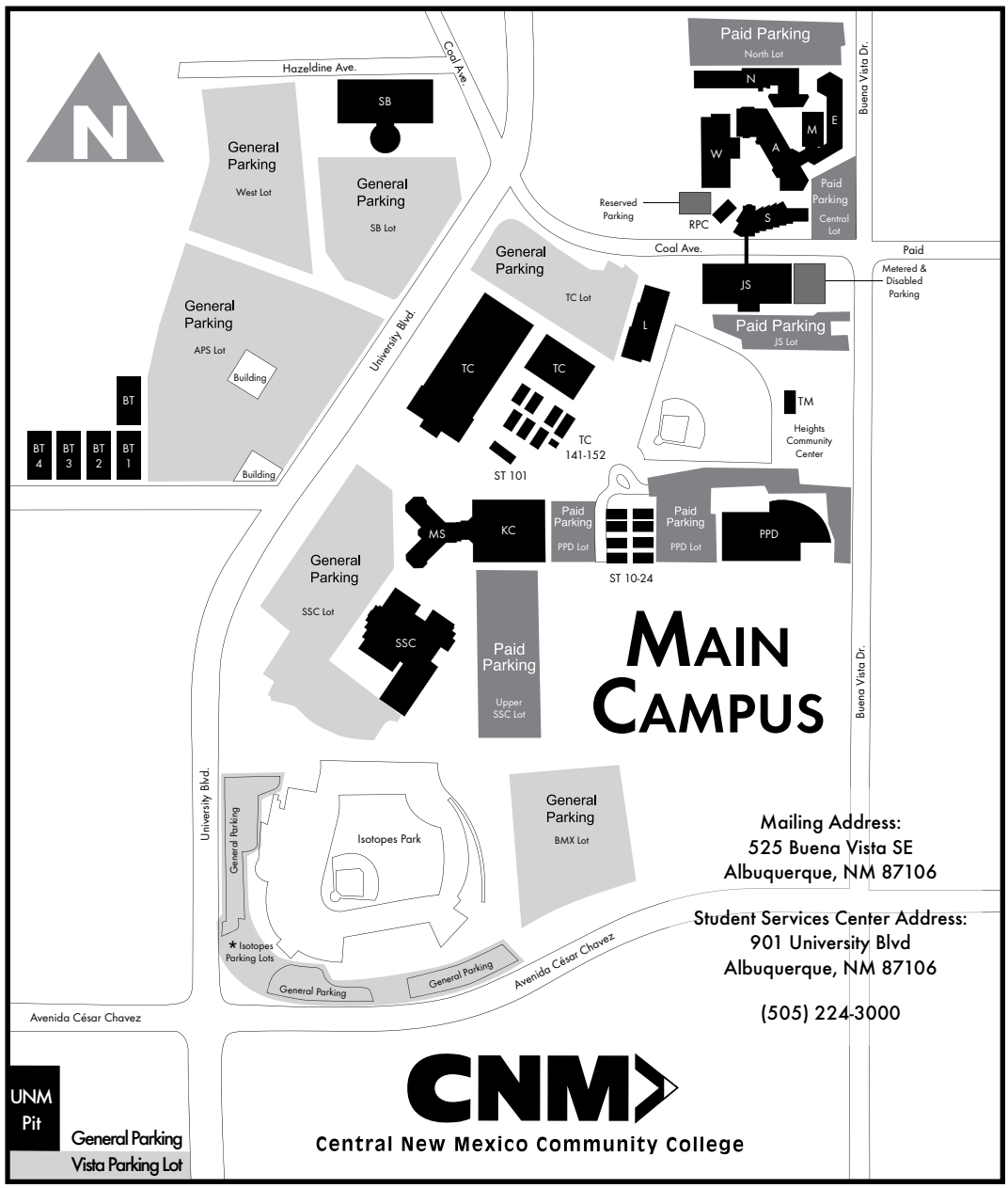
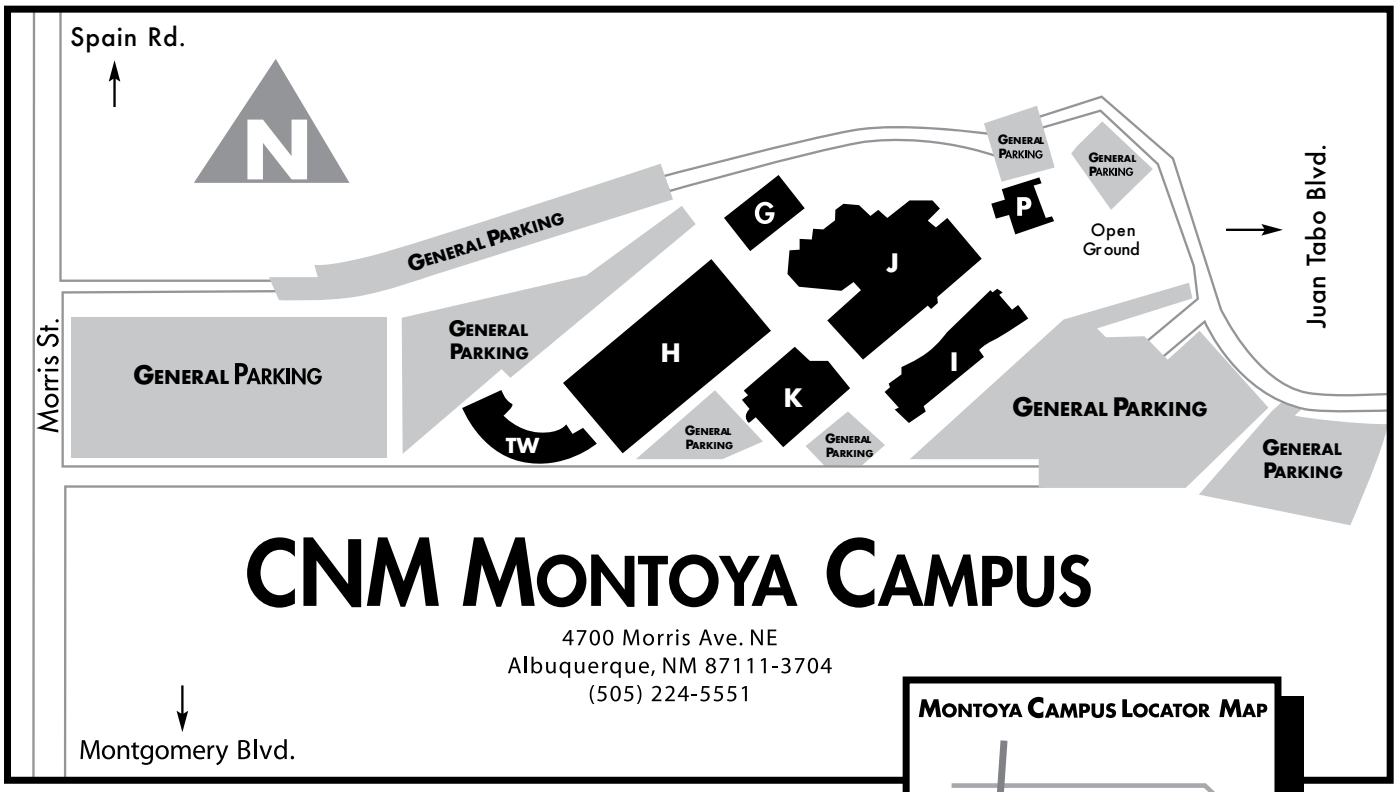
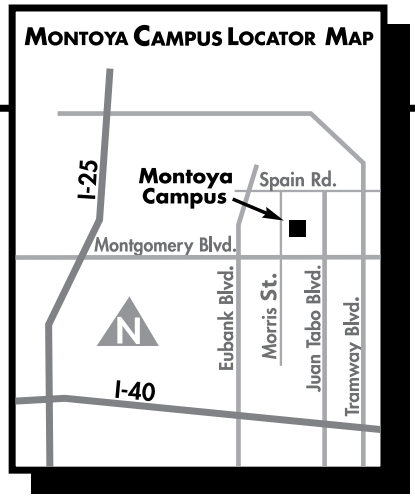


A: Administration Building
BT 1-4: Basehart Temporaries
E: East Building
JS: Jeannette Stromberg Hall
KC: Ken Chappy Hall
L: Science Laboratory Building
M: Main Building
MS: Max Salazar Hall
N: North Building
PPD: Support Services/Physical Plant
RPC: Records & Property Control
S: South Building
SB: Smith Brasher Hall
SSC: Student Services Center
ST: South Temporary Buildings
TC: Ted Chavez Hall
TM: Tres Manos Child Development Center
W: West Building

Note: General parking is free. Students and employees must register their vehicles so security officers can contact them if there are any parking problems. Forms can be picked up at the Student Services Center or at the Parking Services Administrative Office.

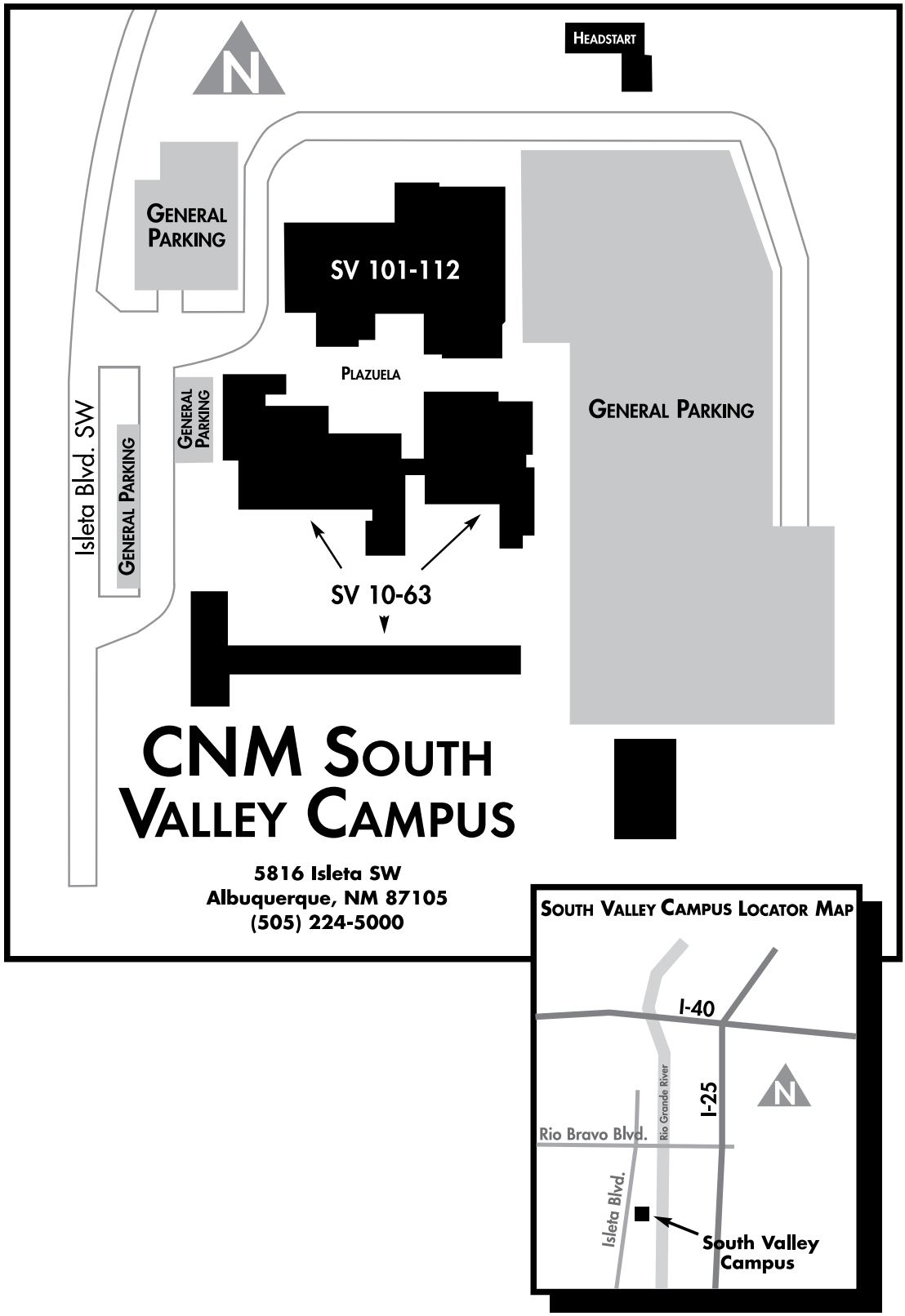
CNM JOSEPH M. MONTOYA CAMPUS
4700 Morris NE
Albuquerque, NM 87111-3704
(505) 224-5551



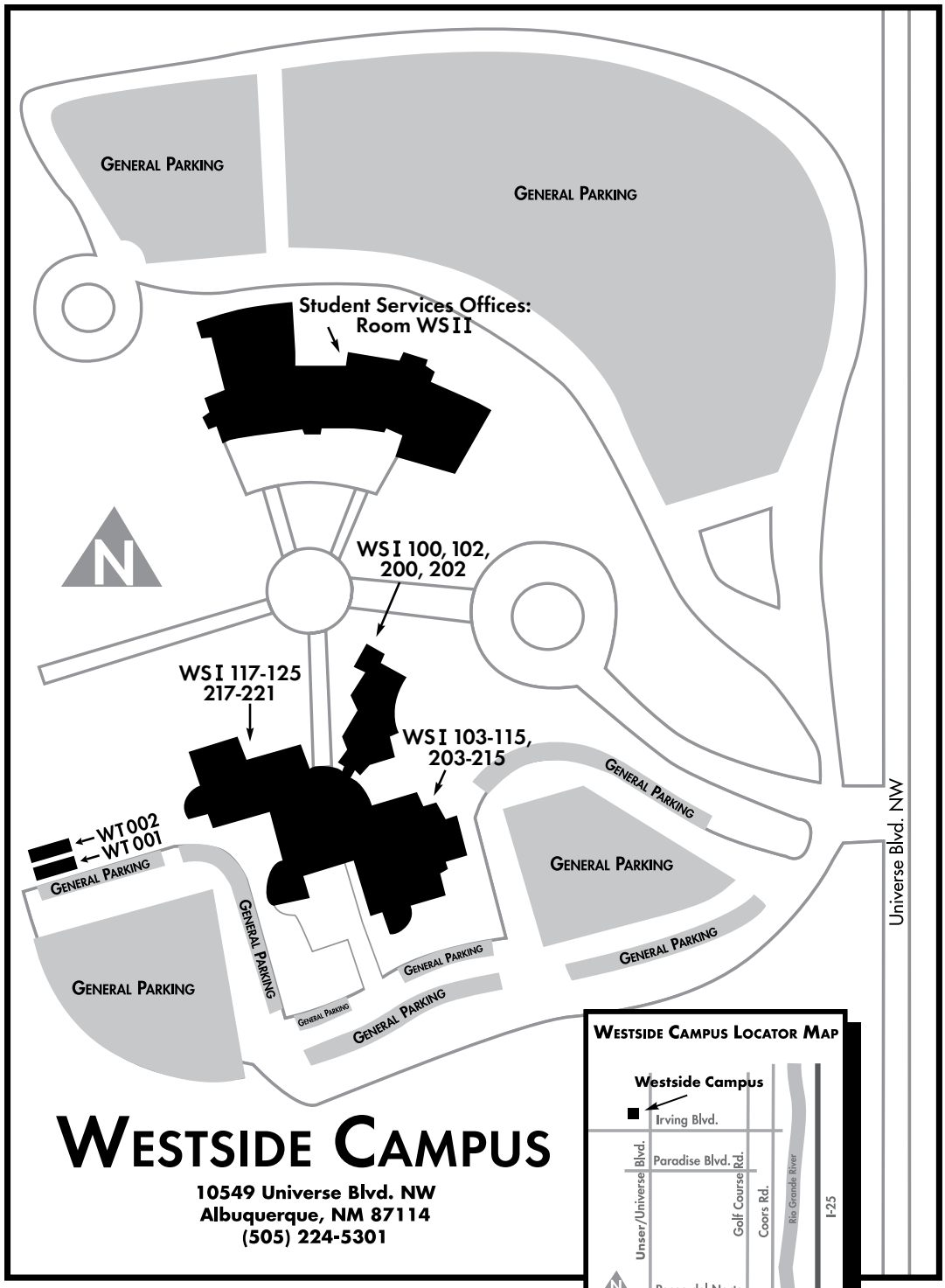


G: G Building
H: H Building
I: I Building
J: J Building
K: K Building
P: P Building (Maintenance)
TW: Tom Wiley Hall

CNM SOUTH VALLEY CAMPUS
5816 Isleta SW
Albuquerque, NM 87105
(505) 224-5000



CNM WESTSIDE CAMPUS
10549 Universe NW
Albuquerque, NM 87114
(505) 224-5301



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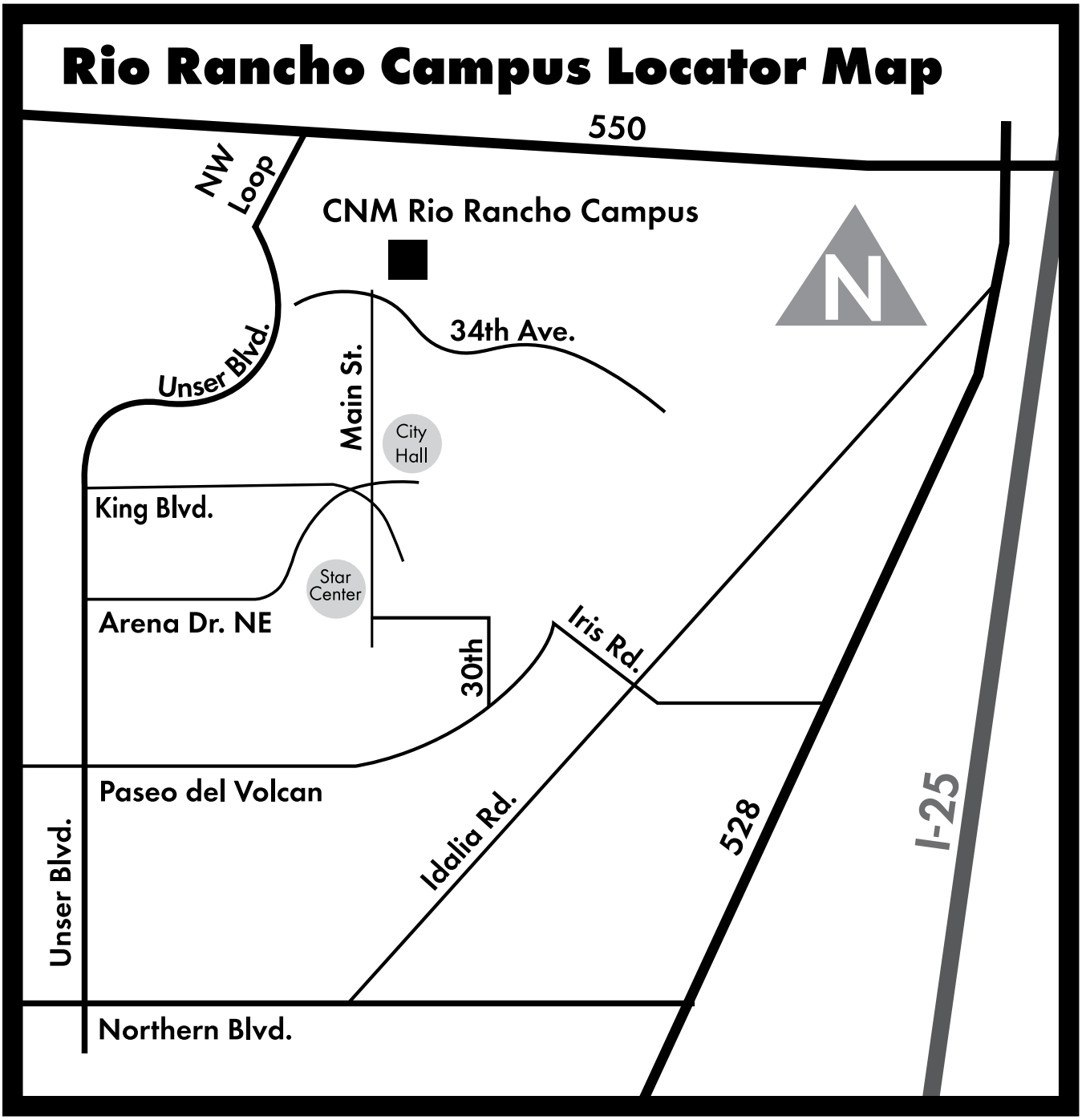
CNM RIO RANCHO CAMPUS
Coming in 2010



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